

Sr No	Subject	Page
1	Safety Information and Precautions	2
2	Product Information	3
1	Connection of peripheral electrical Devices	3
2	System configuration of NICE1000+	4
3	Designation Rules and Nameplate	5
4	Models, Power, Current Rating and DBR requirements	7
5	Physical Appearance and Mounting Dimensions	8
6	Mechanical Installation	9
7	NICE Power terminal & MCTC-MCB-G Main Control Board Details	10
8	Description of the MCTC-KZ-D Extension Card	12
9	Selection and Use of the MCTC-PG Card	14
3	Elevator Hoistway Switches and Sensor Installation	17
1	Terminal floor switches mounting position	17
2	Installation of levelling Plate/Flag and Switches	18
4	Complete Electrical configuration of NICE1000+ all Field Interface	20
5	Initial Start-up Commissioning	21
1	Identify the NICE 1000 control Panel components	21
2	Verification of Controller and Field wiring	21
3	Check list for NICE1000+ Initial Power Up	22
4	Remote MDKE LED Keypad function	23
5	Input and Output functional sequence of Main Control Board (MCTC-MCB-H) of NICE 1000+	24
6	Input terminal LED Sequence for Main Control Board (MCB) while Initial start-Up	25
7	NICE1000+ Start-up Parameterisation	26
8	Commissioning at Inspection Speed	27
9	Inspection Running	30
6	Normal/High Speed Operation	31
1	Elevator Shaft Learning Process	31
2	Door operator commissioning	32
3	Normal Operation & Its Signal Verification	34
4	Floor Level Adjustment	35
5	Car & Landing Calls configuration	36
6	Floor display Setting	37
7	Rescue function using UPS ready on power failure	38
8	Load Weigh Function	39
9	Ride Comfort Fine Tuning	40
7	Function Code Table	41
1	Meaning of each column in Function Code Table	41
2	Function Code Group	41
3	Function Code in details	41
8	Fault Information and Troubleshooting	73
1	Description of Fault Information	73
2	Fault Levels	73
3	Fault Information and Troubleshooting	74

1. Safety Information and Precautions



DANGER



WARNING

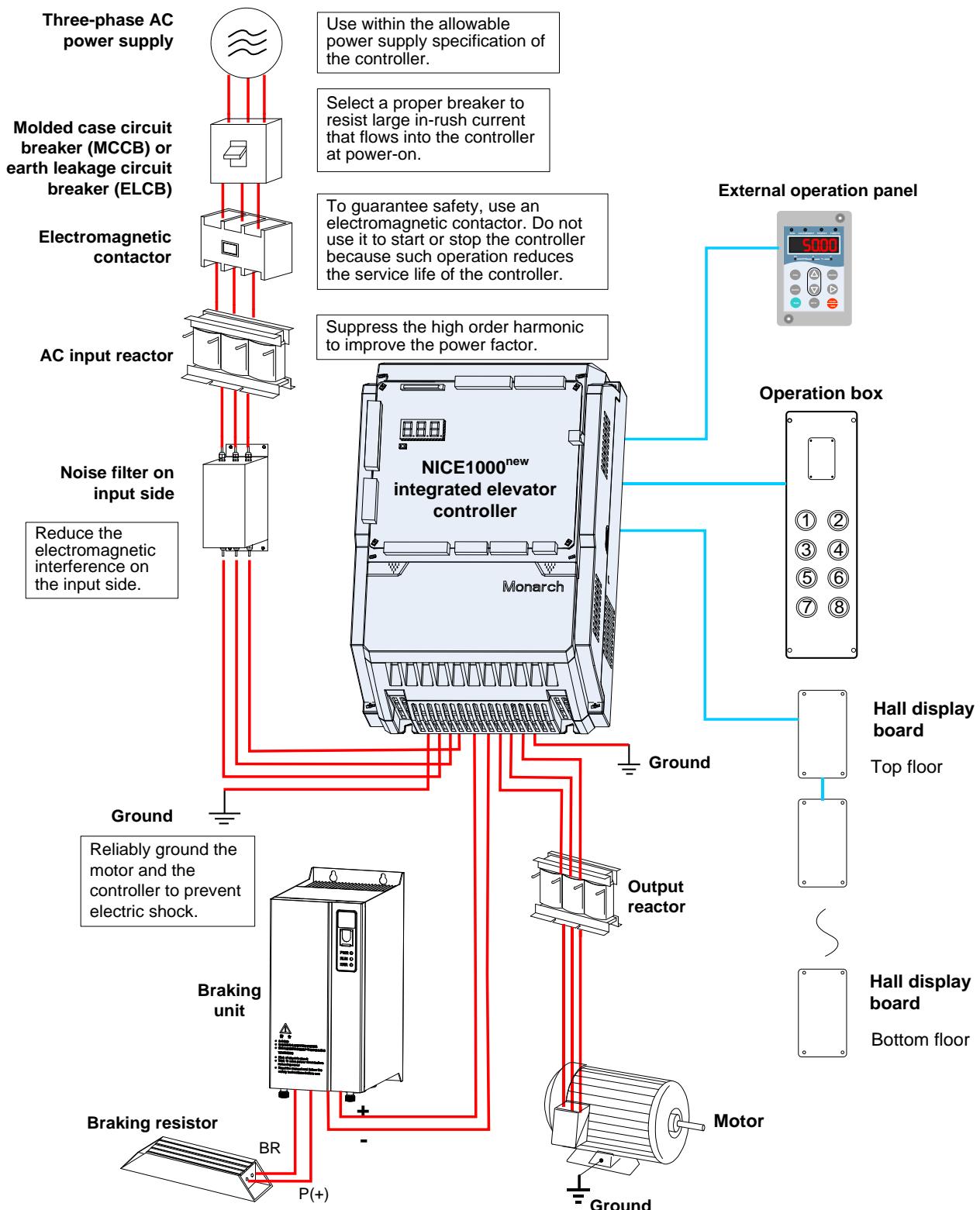


CAUTION

- NICE1000+ Integrated Elevator controller should only be installed, commissioned and maintained by qualified and competent personnel
- Before power is applied to the controller, ensure all covers are fitted to the controller and is fitted in a suitable enclosure
- Dangerous high voltages are present when the input power supply is connected to the controller
- Before attempting any work on the controller or motor or power connected other elevator equipment, isolate and lock off the input power supply
- After disconnecting the supply, wait at least 10 minutes to let the controller's internal capacitors discharge completely before removing the cover. Prove dead using a voltage tester
- Wiring must be performed only by qualified personnel under instructions described in suitable electrical wiring diagram and user manual
- Ensure that the cabling satisfies the EMC requirements and local codes. Use wire sizes recommended in the manual
- Use the shielded cable for the encoder, and ensure that the shield is reliably grounded at one end
- Do not touch the rotating part of the motor during the motor auto-tuning or running
- Do not start/stop the controller by turning on or off the contactor
- When mounting the controller, ensure sufficient cooling is provided in and around
- Do not attempt to carry out any repair of the drive. In the case of suspected fault or malfunction, contact your local supplier
- Never connect the mains power supply to the Output terminals U, V, W
- The drive must be installed within the limits specified in the technical data section
- The motor must be used within the manufacturer's guidelines
- Failure to comply above Safety information and Precautions will result in potential risk of severe or minor personal injury or even death and/or equipment damage

2. Product Information

2.1. Connection of peripheral electrical Devices

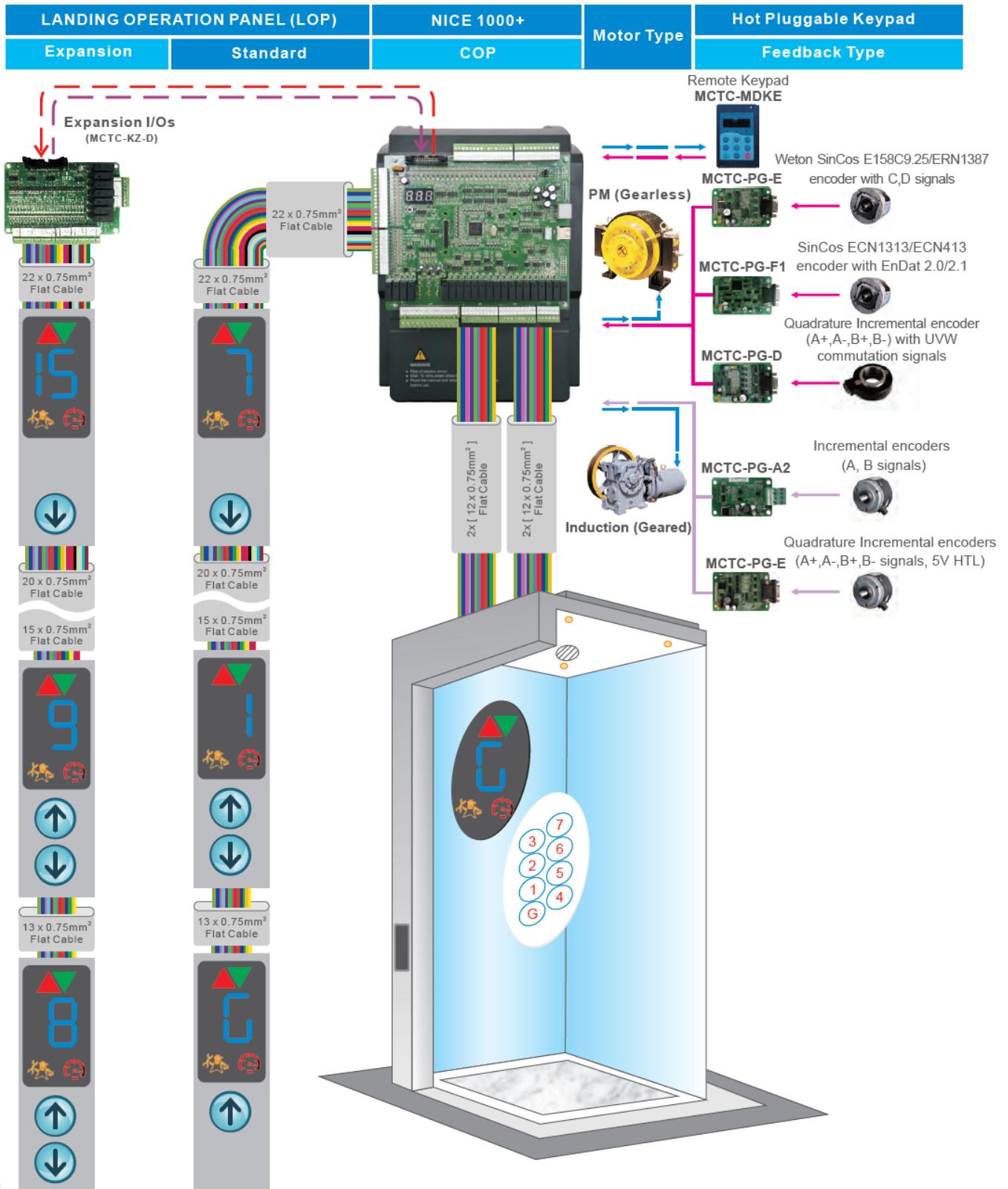


2.2. System configuration of NICE1000+

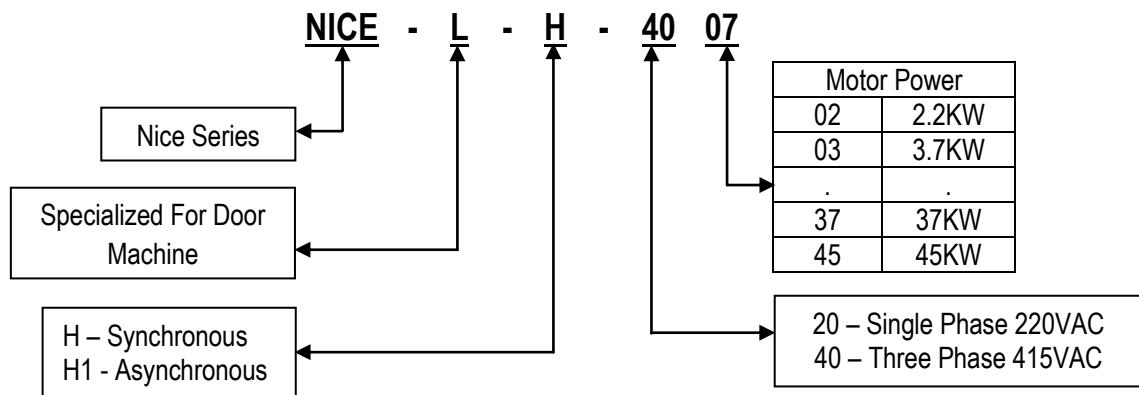
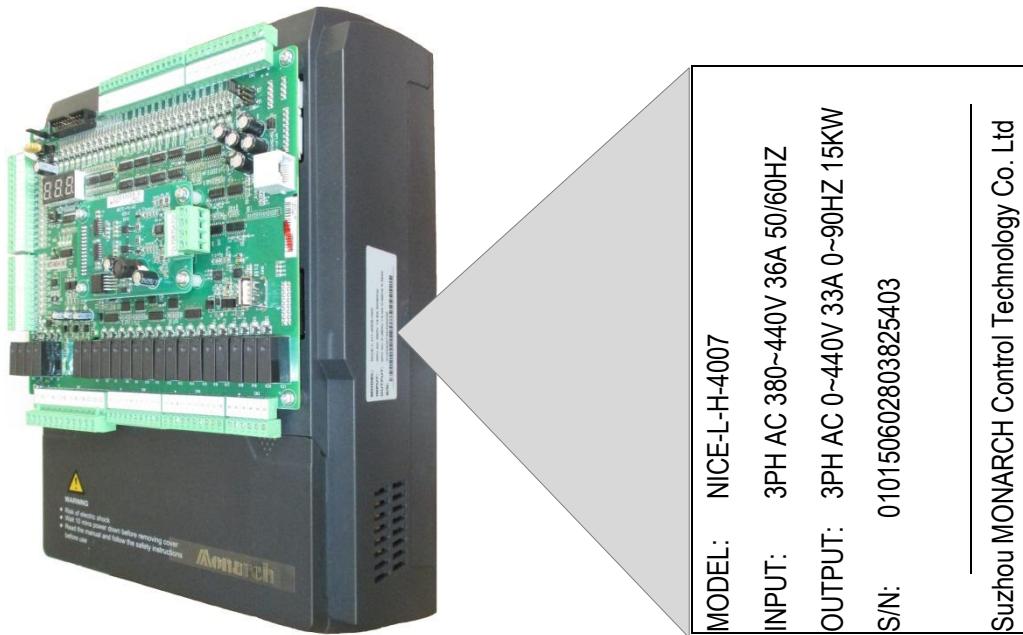
The NICE1000+ Integrated Elevator Control Solution combines the functions of both Elevator control and High performance vector AC Drive.

Basic Connection Diagram

Standard 8-Floors Full Collective, Expansion 16-Floors Full Collective



2.3. Designation Rules and Nameplate



2.4. Technical Specifications

Basic Specifications	Maximum Frequency	99Hz
	Carrier Frequency	2-16 kHz, adjusted automatically based on the load features
	Motor control mode	Sensor-less vector control (SVC) Closed-loop vector control (CLVC) Voltage/Frequency (V/F) control
	Start-up torque	0.5 Hz: 180% (SVC) 0 Hz: 200% (CLVC)
	Speed adjustment range	1:100 (SVC) 1:1000 (CLVC) 1:50 (V/F)
	Speed stability accuracy	±0.5% (SVC) ±0.05% (CLVC)
	Torque control accuracy	±5% (CLVC)
	Overload	60s for 150% of the rated current, 1s for 200% of the rated current

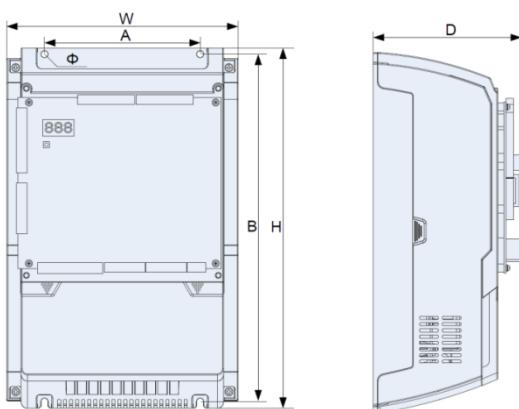
Basic Specifications	Motor auto-tuning	With-load auto-tuning; no-load auto-tuning
	Distance control	Direct travel ride mode in which the levelling position can be adjusted flexibly
	Acceleration/ Deceleration curve	N curves generated automatically
	Slow-down	New reliable slow-down function, automatically identifying the position of the slow-down shelf
	Shaft auto-tuning	32-bit data, recording the position in the shaft accurately
	Levelling adjustment	Flexible and easy levelling adjustment function
	Start-up torque compensation	Load cell start-up pre-torque compensation No-load-cell start-up pre-torque self-adaption
	Test function	Easy to implement multiple elevators commissioning functions
	Fault protection	Solutions to different levels of elevator faults
	Intelligent management	Remote monitoring, user management, and group control adjustment
	Security check of peripheral devices after power-on	Security check of peripheral devices, such as grounding and short circuit, after power-on
	Status monitor	Monitoring the state of feedback signals to ensure that the elevator works properly
I/O feature	Digital input (DI)	24 x DI - Input specification: 24 V, 5 mA 3 higher-voltage detection input terminals of safety circuit and door lock circuit Input specification: 95–125 V (AC/DC)
	Floor input/output	50 floor button inputs/outputs; functions can be set flexibly
	Analog input (AI)	AI (voltage range: -10 V to +10 V)
	Communication port	1 CANbus communication ports 1 Modbus communication port
	Output terminal block	27 relay outputs The terminals can be allocated with different functions.
	Encoder interface	Supporting different encoders by using an optional PG card
	Keypad	Used for shaft auto-tuning
Operation and display	LED operation panel	5-digit LED display, querying/modifying most parameters and monitoring the system state
	NEMS software	Connecting the control system and the host computer, convenient for querying/motoring the system state.
	Altitude	Below 1000 m (de-rated 1% for each 100 m higher)
Environment	Ambient temperature	-10°C to 50°C (de-rated if the ambient temperature is above 40°C)
	Humidity	Maximum relative humidity 95%, non-condensing
	Vibration	Maximum vibration: 5.9 m/s ² (0.6 g)
	Storage temperature	-20°C to 60°C
	IP level	IP20
	Pollution degree	PD2
	Power distribution system	TN, TT

2.4. Models, Power, Current Rating and DBR requirements

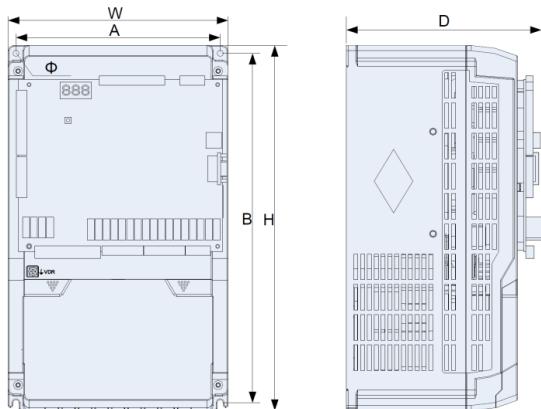
Model	Power Capacity (KVA)	Input Current (A)	Output Current (A)	Adaptable Motor Power (KW)	DBR Resistance (Ω_{Max} to Ω_{Min})	DBR Power (Watts)	Braking Unit
Single phase 220VAC, Range -15% to 20%							
NICE-L-H/H1-2002	2.0	9.2	5.2	1.1	145~125	≥ 300	Built-in
NICE-L-H/H1-2003	2.9	13.3	7.5	1.5	105~90	≥ 450	
220-NICE-L-H/H1-4007	3.9	17.9	10.3	2.2	72~63	≥ 600	
220-NICE-L-H/H1-4011	5.9	25.3	15.5	3.7	43~37	≥ 1100	
220-NICE-L-H/H1-4015	7.3	31.3	19	4.0	40~35	≥ 1200	
220-NICE-L-H/H1-4018	8.6	34.6	22.5	5.5	29~25	≥ 1600	
220-NICE-L-H/H1-4022	10.6	42.6	27.7	11	18~16	≥ 3500	
220-NICE-L-H/H1-4030	13.1	52.6	34.6	15	13~13	≥ 4500	
Three phase 220VAC, Range -15% to 20%							
NICE-L-H/H1-2002	4.0	11.0	9.6	2.2	72~65	≥ 600	Built-in
NICE-L-H/H1-2003	5.9	17.0	14.0	3.7	54~50	≥ 1100	
220-NICE-L-H/H1-4007	7.0	20.5	18.0	4.0	40~35	≥ 1200	
220-NICE-L-H/H1-4011	10.0	29.0	27.0	5.5	29~25	≥ 1600	
220-NICE-L-H/H1-4015	12.6	36.0	33.0	7.5	26~22	≥ 2500	
220-NICE-L-H/H1-4018	15.0	41.0	39.0	11.0	14.5~13	≥ 3500	
220-NICE-L-H/H1-4022	18.3	49.0	48.0	15.0	13~12.5	≥ 4500	
220-NICE-L-H/H1-4030	23.0	62.0	60.0	18.5	12.5~12	≥ 5500	
Three phase 380 to 480VAC, Range -15% to 10%							
NICE-L-H/H1-4002	4.0	6.5	5.1	2.2	290~230	≥ 600	Built-in
NICE-L-H/H1-4003	5.9	10.5	9.0	3.7	170~135	≥ 1100	
NICE-L-H/H1-4005	8.9	14.8	13.0	5.5	115~90	≥ 1600	
NICE-L-H/H1-4007	11.0	20.5	18.0	7.5	85~65	≥ 2500	
NICE-L-H/H1-4011	17.0	29.0	27.0	11.0	55~43	≥ 3500	
NICE-L-H/H1-4015	21.0	36.0	33.0	15.0	43~35	≥ 4500	
NICE-L-H/H1-4018	24.0	41.0	39.0	18.5	34~25	≥ 5500	
NICE-L-H/H1-4022	30.0	49.5	48.0	22.0	24~22	≥ 6500	
NICE-L-H/H1-4030	40.0	62.0	60.0	30.0	20~16	≥ 9000	MDBUN-60-T
NICE-L-H/H1-4037	57.0	77.0	75.0	37.0	16~13	≥ 11000	
NICE-L-H/H1-4045	69.0	93.0	91.0	45.0	14~11	≥ 13500	
NICE-L-H/H1-4055	85.0	113.0	112.0	55.0	12~10	≥ 16500	MDBUN-90-T

2.5. Physical Appearance and Mounting Dimensions

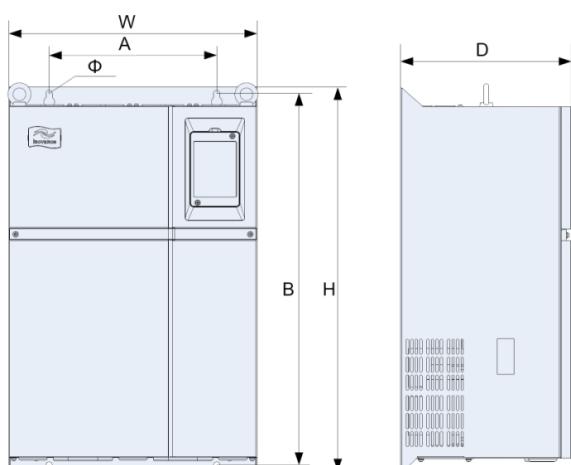
L structure between 2.2 – 15 KW



L structure between 18 – 37 KW

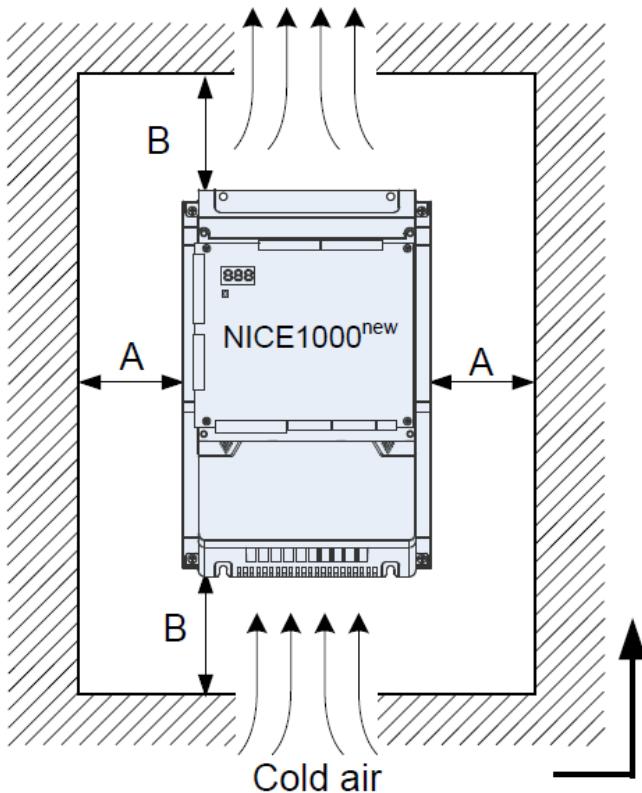


L structure between 45 – 55 KW



Controller Model	A (mm)	B (mm)	H (mm)	W (mm)	D (mm)	Hole Diameter (mm)	Gross Weight (kg)
Single-phase/Three-phase 220 VAC, range: -15% to 20%							
NICE-L-H-2002	150	334.5	347	223	143	6.5	5.5
NICE-L-H-2003							
220-NICE-L-H-4007							
220-NICE-L-H-4011	150	334.5	347	223	173.5	6.5	7
220-NICE-L-H-4015							
220-NICE-L-H-4018							9.1
220-NICE-L-H-4022	195	335	350	210	192	6	
220-NICE-L-H-4030	230	380	400	250	220	7	17
Three-phase 380 to 480VAC, range: -15% to 10%							
NICE-L-H-4002							
NICE-L-H-4003	150	334.5	347	223	143	6.5	5.5
NICE-L-H-4005							
NICE-L-H-4007							
NICE-L-H-4011	150	334.5	347	223	173.5	6.5	7
NICE-L-H-4015							
NICE-L-H-4018							9.1
NICE-L-H-4022	195	335	350	210	192	6	
NICE-L-H-4030							
NICE-L-H-4037	230	380	400	250	220	7	17
NICE-L-H-4045							
NICE-L-H-4055	245	580	525	300	275	10	35

2.6. Mechanical Installation



Power	Clearance Requirement	
1.1 to 18KW	A ≥ 10 mm	B ≥ 100 mm
22 to 55KW	A ≥ 50 mm	B ≥ 100 mm



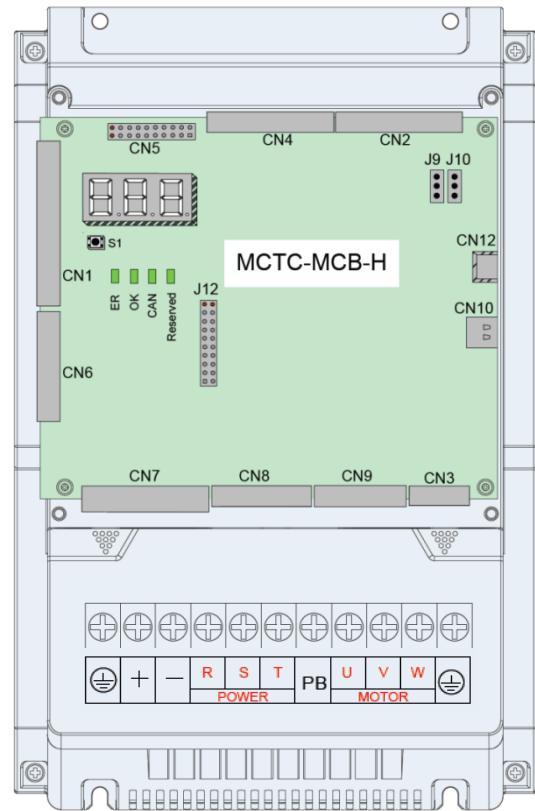
Pay attention to the following points when designing the control cabinet:

- The temperature inside the cabinet must not rise to 10°C higher than the temperature outside the cabinet
- A closed control cabinet must be equipped with a fan (or other air cooling device such as air conditioner) to ensure air circulation
- The air from the fan must not blow directly to the drive unit because this can easily cause dust adhesion and further a fault on the drive unit
- A vent must be available at bottom of the control cabinet to form bottom-up air flow, which prevents heat island effect on the surface of components or partial thermal conductivity effect
- If the fan does not meet the cooling requirements, install an air conditioner in the cabinet or in the equipment room. Note that the temperature inside the cabinet must not be too low; otherwise, condensation may occur, causing short-circuit of components
- For special environment where the temperature is high but cannot be reduced effectively, de-rate the controller during use.

2.7. NICE Power terminal & MCTC-MCB-G Main Control Board Details



Actual NICE1000+ unit with Encoder PG card



NICE1000+ Unit Terminal Details

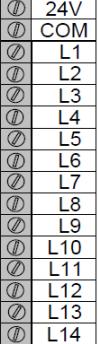
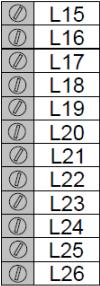
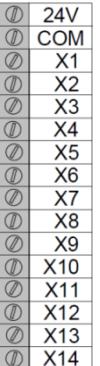
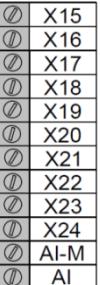
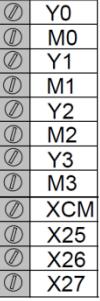
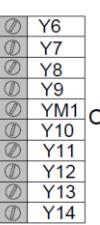
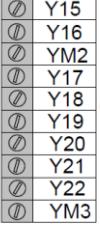
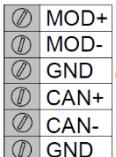
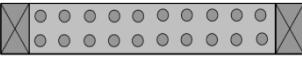
2.7.1 Description of Power Terminal of NICE

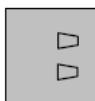
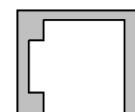
Terminal	Name	Description
R,S,T	3-Phase power input terminal	Input 3-phase AC380 to 480V
(+), (-)	Positive and Negative terminals of DC bus	Connect the external braking unit and energy feedback unit for models of 37 kW and above
(+), PB(P)	Terminals for brake resistor	(+), PB: Connect the braking resistor for models of below 37 kW (+), (P): Connect the DC reactor for models of 37 kW and above At delivery, the (+) and P terminals are shorted with the jumper bar. If you need not connect the DC reactor, do not remove the jumper bar.
U,V,W	Controller Output Power Terminal	Connect to the three phase Hoist Motor
PE	Grounding Terminal	Must be connected with Earth/Ground Bus bar

2.7.2 Description of indicators on the MCB

Mark	Terminal Name	Function Description
ER	Fault indicator	When a fault occurs on the controller, this indicator is ON (red).
OK	Normal running indicator	When the controller is in normal running state, this indicator is ON (green).
CAN	Parallel control communication indicator	This indicator is steady ON (green) when communication for parallel control is enabled, and blinks when the running in parallel mode is normal.
L1 to L26	Button input indicator	This indicator is ON (green) when the button input is active.
X1 to X27	Input signal indicator	This indicator is ON (green) when the external input is active.
Y0 to Y22	Output signal indicator	This indicator is ON (green) when the system output is active.

2.7.3 Description of Main Control Board (MCB) Terminals

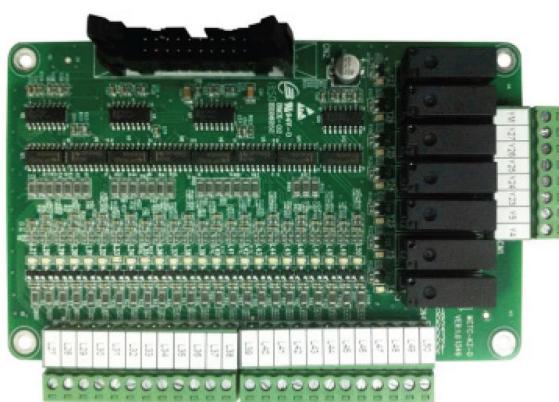
Mark	Code	Terminal Name	Function Description	Terminal Arrangement
CN2 CN4	24V/COM	External 24 VDC power supply	24 VDC power supply for the entire board	 
	L1 to L26	Button function selection	Button input and button indicator output, 24 V power for button illumination	
CN1 CN6	24V/COM	External 24 VDC power supply	24 VDC power supply for the entire board	 
	X1 to X24	DI	Input voltage range: 10–30 VDC Input impedance: 4.7 kΩ Opto-coupler isolation Input current limit: 5 mA Functions set in F5-01 to F5-24	
	AI-M/AI	AI	Used for the analog load cell device	
CN7	X25 to X27/ XCM	Higher-voltage detection terminal	Input voltage range: 110 VAC±15% 110 VDC±20% for safety circuit and door lock circuit, function set in F5-25 to F5-27	
	Y0/M0 to X27 Y3/M3	Relay output	Normally-open (NO), maximum current and voltage rating: 5 A, 250 VAC Function set in F7-00 to F7-03	
CN8 CN9	Y6 to Y22	Relay output	NO, maximum current and voltage rating: 5 A, 250 VAC or 5 A, 30 DC Function set in F7-06 to F7-22	 
	YM1 to YM3	COM for relay output	YM1 is COM for Y6 to Y9; YM2 is COM for Y10 to Y16; YM3 is COM for Y17 to Y22	
CN3	MOD+/-	Reserved	-	
	CAN+/-	CAN bus differential signal	CAN bus communication interface, used for parallel control	
	GND	Ground	Must be grounded	
CN5	Interface for extension board MCTC-KZ-D			

CN10	USB interface	Communication	<ul style="list-style-type: none"> Used to connect the external Bluetooth module for commissioning via Android cell phone (not supporting English version currently) Used to burn the MCB program Used for residential monitoring 	 CN10
CN12	RJ45 interface	Interface for operation panel	Used to connect the operation panel	 CN12
J12	Interface for connecting the PG card			 J12
J9/ J10	Factory reserved. Do not short them randomly. Otherwise, the controller may not work properly			 J9  J10

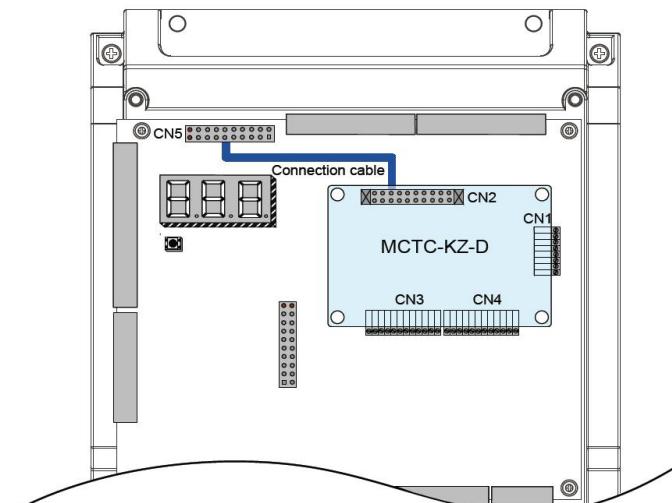
2.8. Description of the MCTC-KZ-D Extension Card

The extension card is mainly used for extension of floor call button inputs and relay outputs.

2.8.1 Appearance and installation of the MCTC-KZ-D

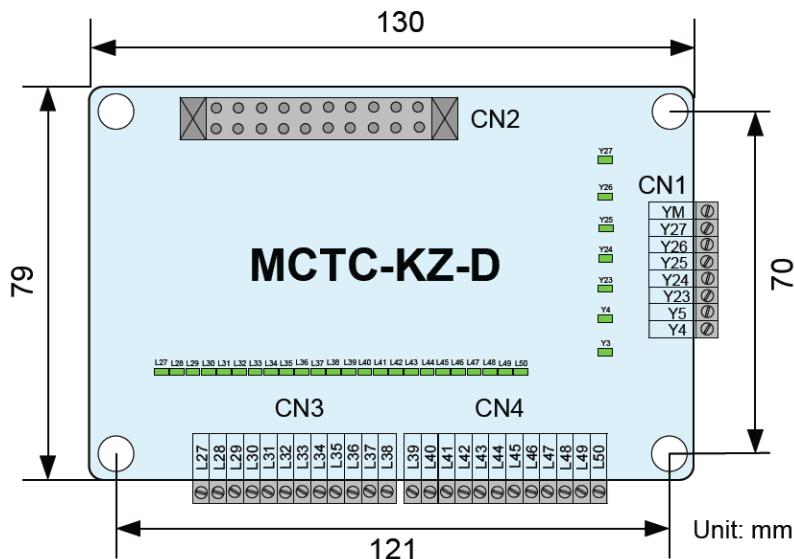


Actual Appearance of MCTC-KZ-D

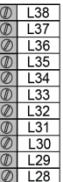
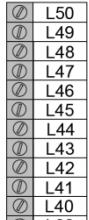
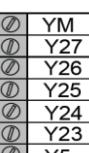


NICE1000+ connected with MCTC-KZ-D

2.8.2 Mounting dimensions of the MCTC-KZ-D



2.8.3 Function description of terminals

Mark	Code	Terminal Name	Function Description	Terminal Arrangement
CN3 CN4	L27 to L38	Button function selection	Button input and button indicator output, 24 V power for button illumination	CN3 
	L39 to L50	Button function selection	Button input and button indicator output, 24 V power for button illumination	CN4 
CN1	YM/Y4/Y5/Y23 to Y27	Relay output	Normally-open (NO), maximum current and voltage rating: 5 A, 250 VAC Function set in F7-03 to F7-27	 CN1
CN2	Interface for connection to the MCB			 CN2

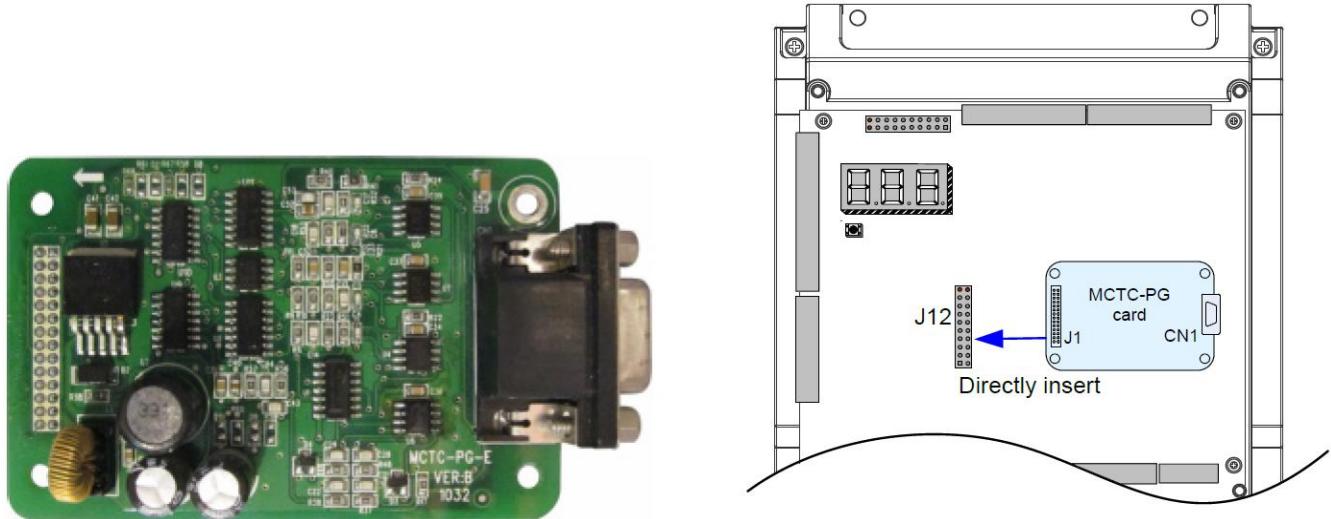
2.8.4 Description of indicators on the MCTC-KZ-D

Mark	Terminal Name	Function Description
L27 to L50	Extension button signal collection/feedback indicator	When the extension floor button input signal is active and the response signal is output, this indicator is ON (green).
Y4, Y5, Y23 to Y27	Extension relay output signal indicator	When the extension relay output of the system is active, this indicator is ON (green).

2.9 Selection and Use of the MCTC-PG Card

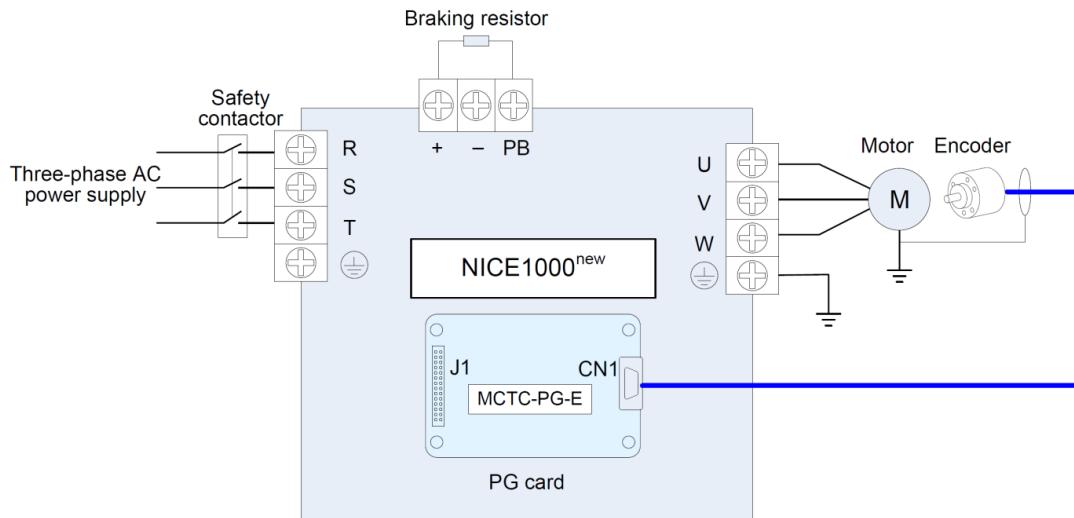
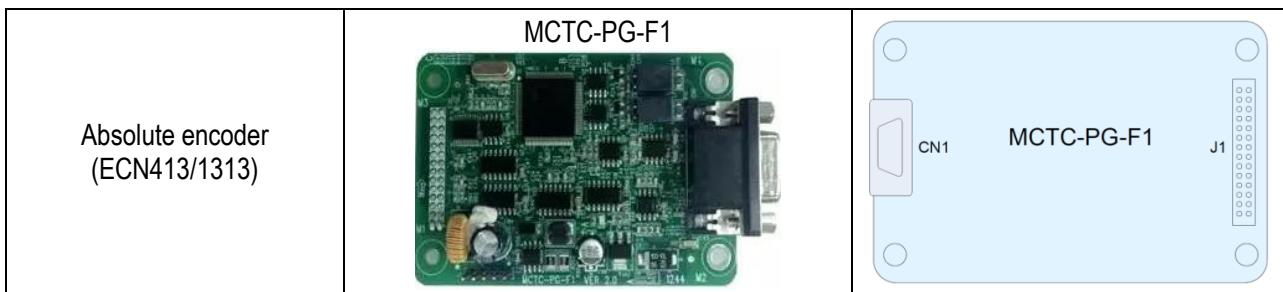
- The NICE1000+ can implement CLVC only with use of the MCTC-PG card
- Directly insert the J1 terminal of the MCTC-PG card into the J12 terminal of the controller

2.9.1 Appearance of the MCTC-PG card and its installation on the controller



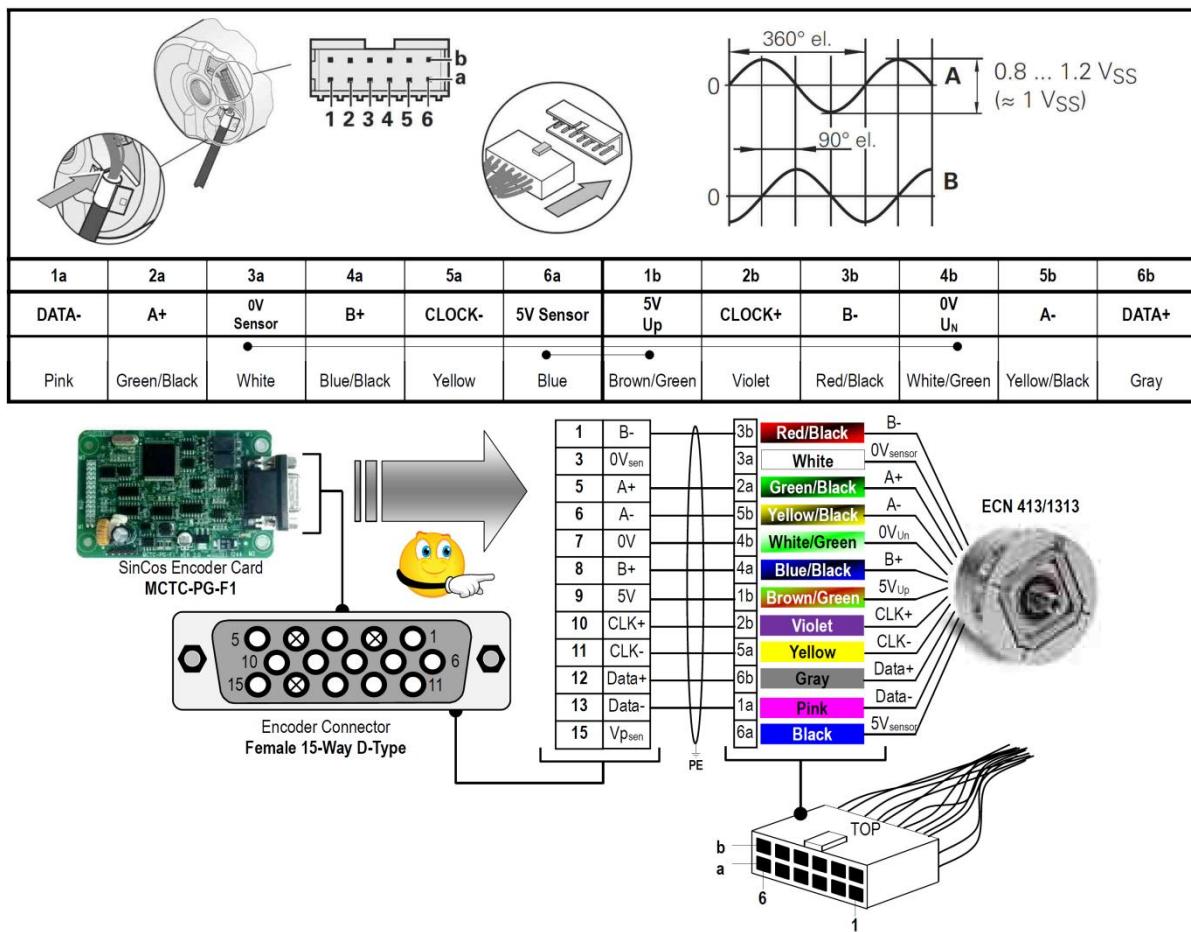
2.9.2 Selection of the MCTC-PG card models

Encoder Type	Adaptable PG Card	Appearance
Push-pull encoder Open-collector incremental Encoder	MCTC-PG-A2 	
UVW encoder	MCTC-PG-D 	
SIN/COS encoder	MCTC-PG-E 	

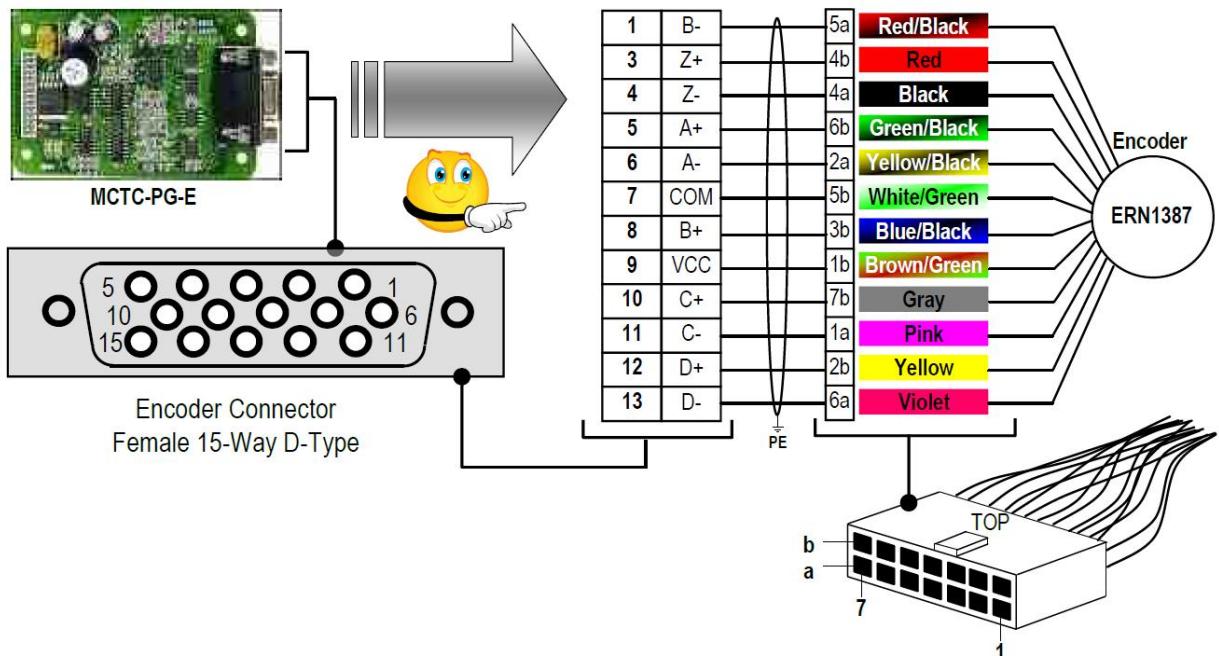


2.9.3 Details on Different Encoders wiring configuration with different PG Cards

HEIDENHAIN ECN1313 (Sin/Cos) ENCODER 14-PIN DESCRIPTION



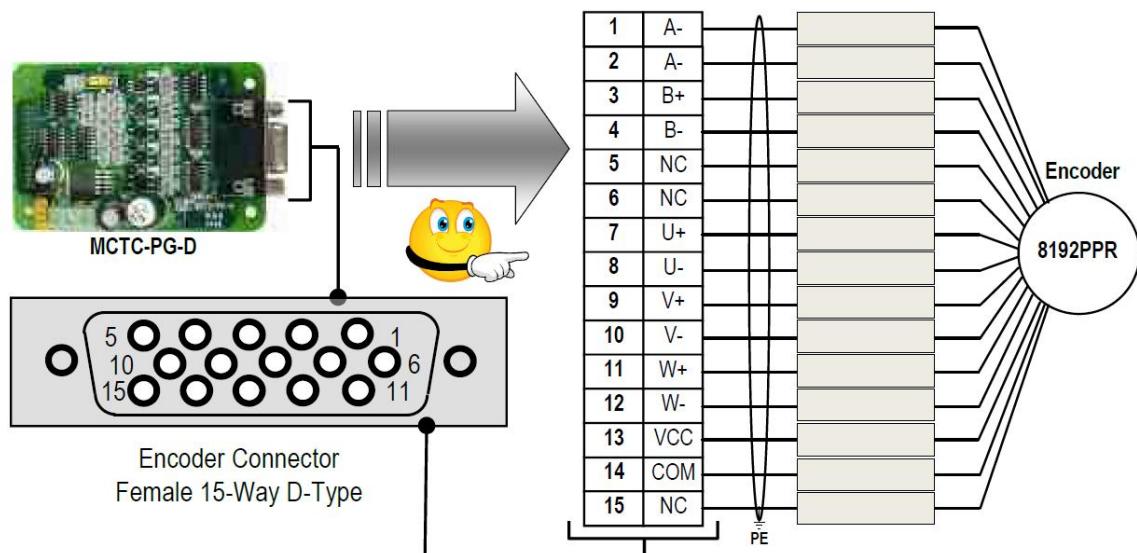
2.1.1. Encoder connection for ERN 1387:



HEIDENHAIN ERN1387 (Sin/Cos) ENCODER 14-PIN DESCRIPTION

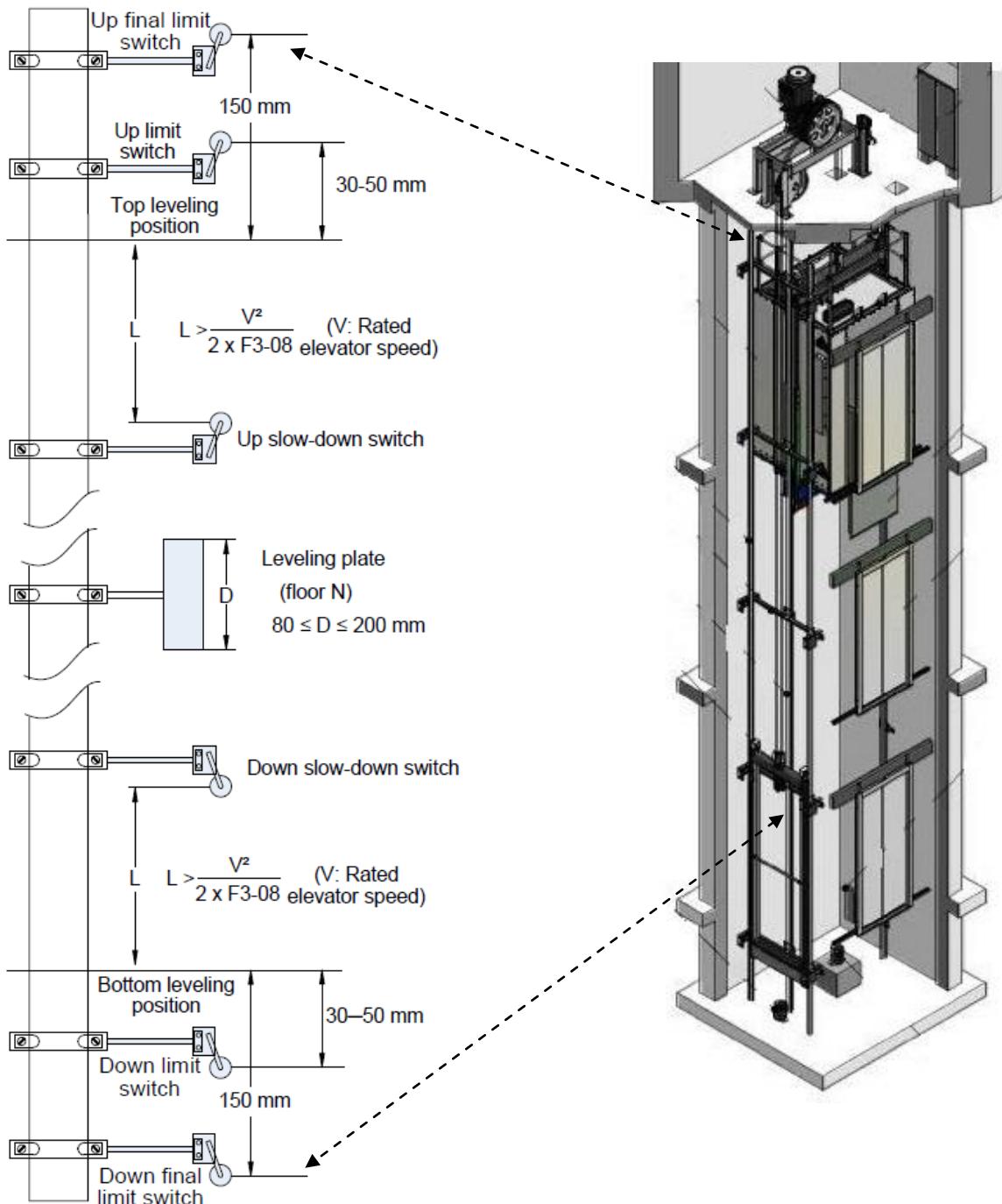
1a	2a	3a	4a	5a	6a	7a	1b	2b	3b	4b	5b	6b	7b
C-	A-	0V Thermistor	R-	B-	D-	Up Thermistor	VCC	D+	B+	R+	0V	A+	C+
Pink	Yellow/Black	White	Black	Red/Black	Violet	Blue	Brown/Green	Yellow	Blue/Black	Red	White/Green	Green/Black	Gray

2.1.2. Encoder connection for quadrature incremental with commutation 8192 PPR:



3. Elevator Hoistway Switches and Sensor Installation

3.1 Terminal floor switches mounting position

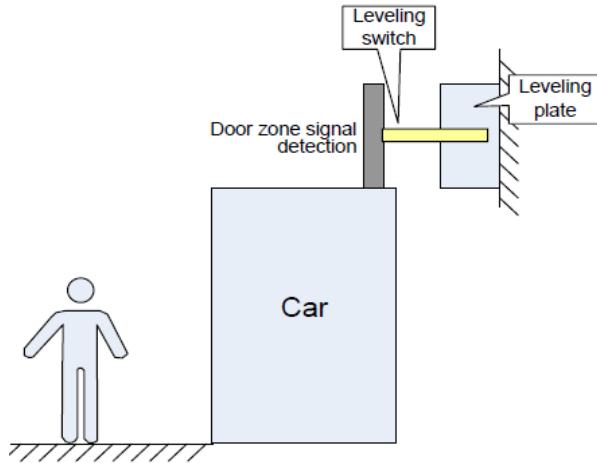


In the formula, "L" indicates the slow-down distance, "V" indicates the F0-04 (Rated elevator speed), and "F3-08" indicates the special deceleration rate.

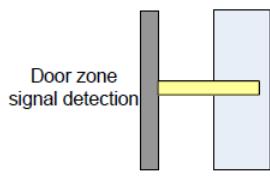
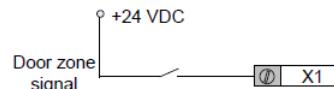
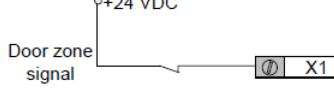
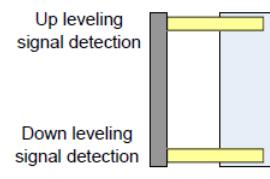
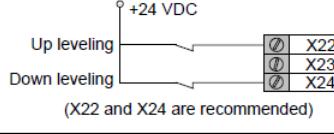
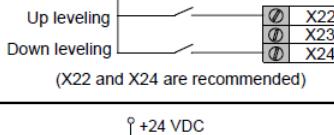
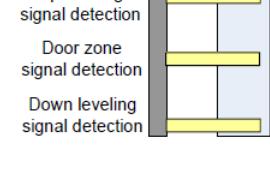
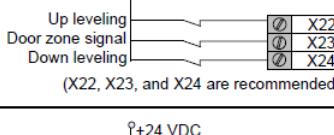
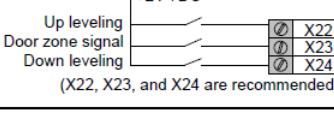
The default value of F3-08 (Special deceleration rate) is 0.5 m/s². The slow-down distances calculated based on different rated elevator speeds are listed in the following table:

Rated Elevator Speed (F0-04) m/s	0.4	0.5	0.63	0.75	1.0	1.5	1.75
Distance Slow-down switch (m)	0.5-0.6	0.6-0.8	0.8-1.0	0.9-1.2	1.2-1.6	1.8-2.5	

3.2 Installation of levelling Plate/Flag and Switches

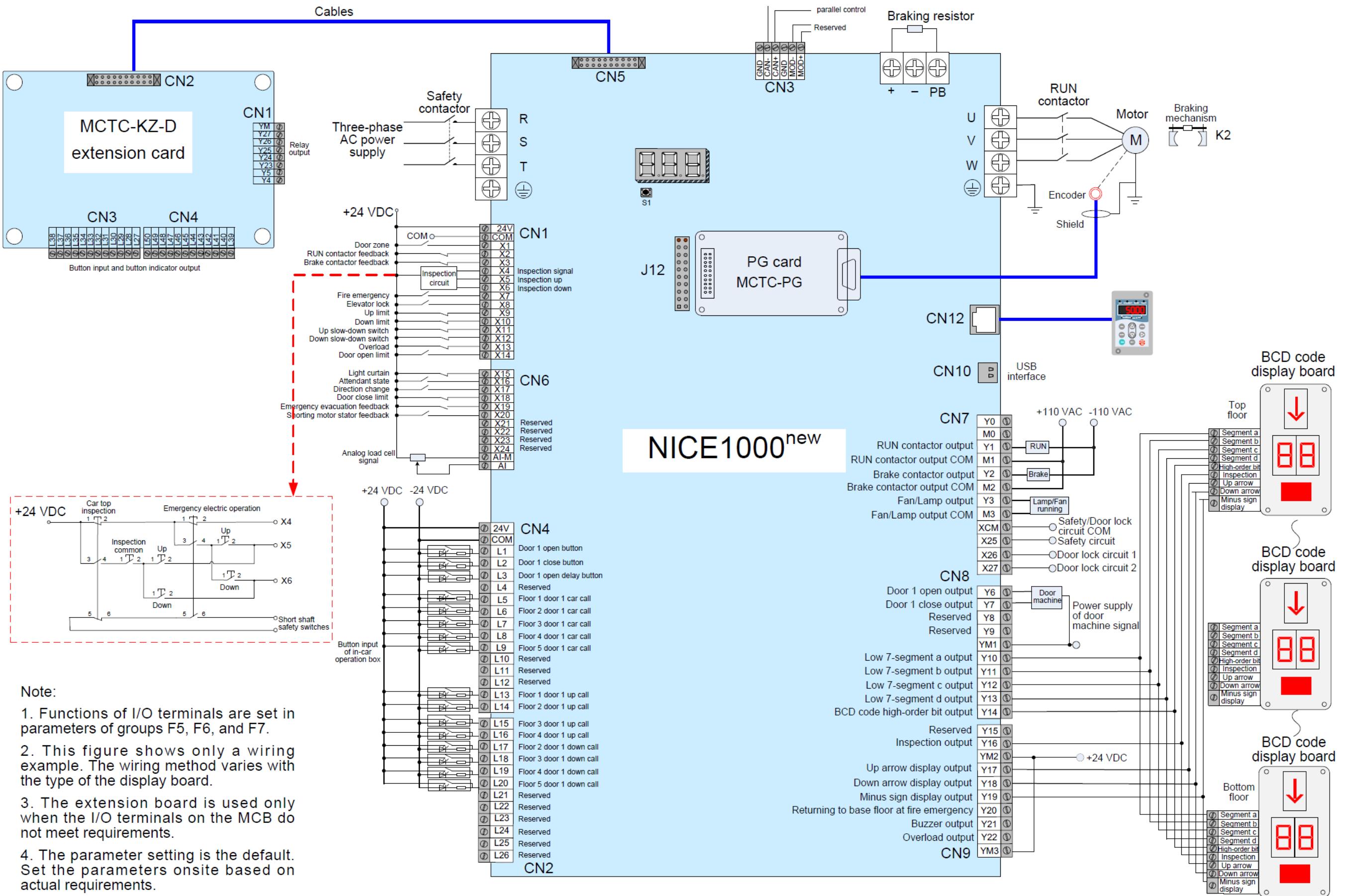


NICE1000+ supports below three combinations of Door Zone and Up/Down levelling sensor/switches for elevator floor stopping at floor level

Number of Leveling Switches	Installation Method	Connecting to Input Terminals of Controller	Setting of Function Code
1	 Door zone signal detection	 Door zone signal	F5-01 = 03 (NO)
		 Door zone signal	F5-01 = 103 (normally closed, NC)
2	 Up leveling signal detection	 Up leveling Down leveling (X22 and X24 are recommended)	F5-22 = 101 (NC) F5-24 = 102 (NC)
		 Up leveling Down leveling (X22 and X24 are recommended)	F5-22 = 01 (NO) F5-24 = 02 (NO)
3	 Up leveling signal detection	 Up leveling Door zone signal Down leveling (X22, X23, and X24 are recommended)	F5-22 = 101 (NC) F5-23 = 103 (NC) F5-24 = 102 (NC)
		 Up leveling Door zone signal Down leveling (X22, X23, and X24 are recommended)	F5-22 = 01 (NO) F5-23 = 03 (NO) F5-24 = 02 (NO)

Third method Up/Down levelling switches and Door Zone switches are used mainly for Re-levelling and Advance floor levelling functions. While using these functions, need three or four switches along with MCTC-SCB-A board.

4. Complete Electrical configuration of NICE1000+ with all Field Interfaces

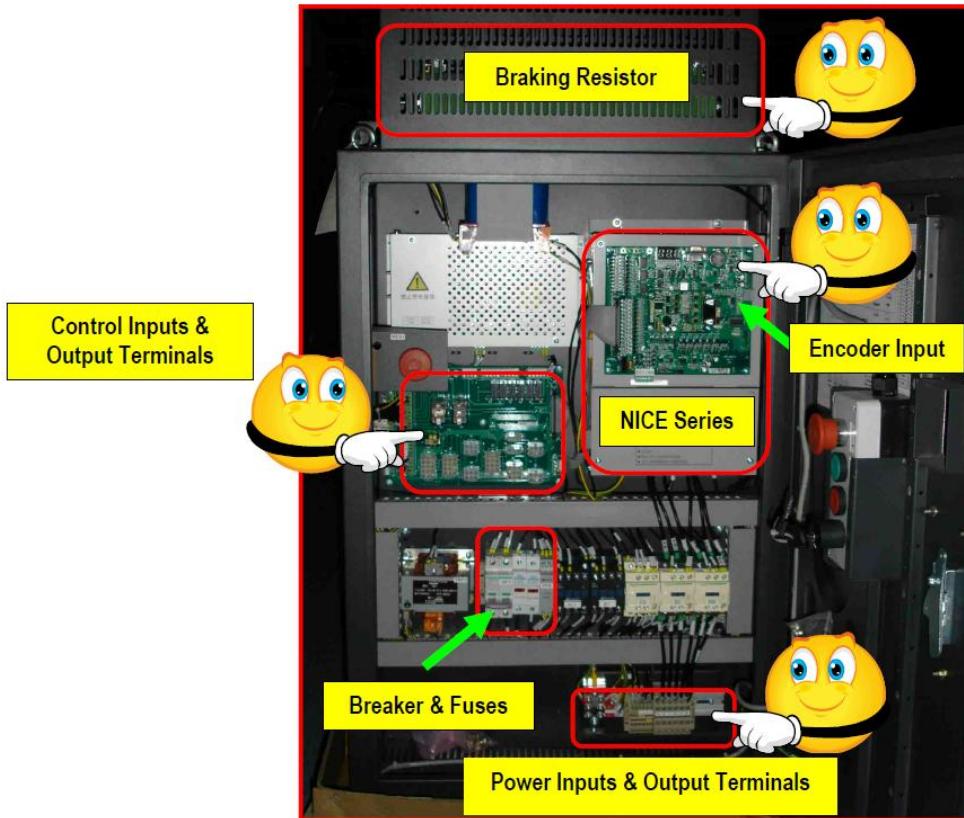


Note:

1. Functions of I/O terminals are set in parameters of groups F5, F6, and F7.
2. This figure shows only a wiring example. The wiring method varies with the type of the display board.
3. The extension board is used only when the I/O terminals on the MCB do not meet requirements.
4. The parameter setting is the default. Set the parameters onsite based on actual requirements.

5. Initial Start-up commissioning

5.1. Identify the NICE1000+ control Panel components



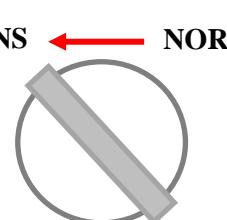
Monarch Standard MR Panel

5.2. Verification of Controller and Field wiring

- For safety, make sure that the all Moulded Case Circuit Breakers (MCCB) are turned **OFF** before wiring the main circuit power input terminals located at machine room and elevator controller
- Select the 'Controller INS' selector switch to inspection mode **INS ← NOR**
- Check control panel wiring are proper and well tightened
- Check the field wiring are proper and well tightened at controller



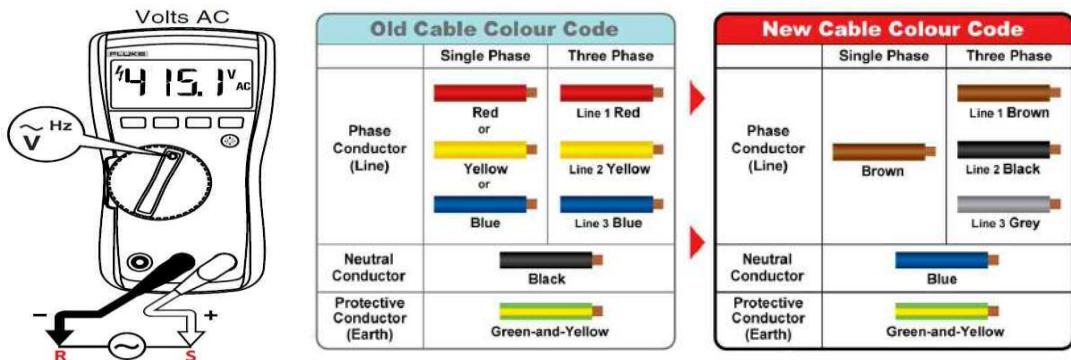
OFF
↓



- Check all Field Wiring (Machine Room, Controller, Hoist-way, Car top, COP and LOP) are connected as per the suitable Electrical Drawing
- Check control panel wiring for short circuit or grounding using Multi meter
- Verify the below power points with respect to Earth point
 - R S T with respect to Earth (PE)
 - U V W with respect to Earth (PE)
 - ±24VDC with respect to Earth (PE)
 - Encoder power supply with respect to Earth (PE)
 - Safety circuit and Door Lock circuit with respect to Earth (PE)
 - All other Field Control circuit with respect to Earth(PE)
- Check Controller power terminal U V W are correctly connected corresponds to the Motor U V W terminal
- Check the Machine Brake wiring is done correctly as per the requirement

5.3 Check list for NICE1000+ Initial Power Up

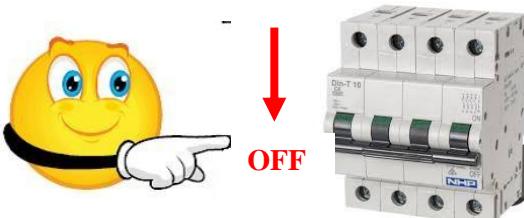
- 5.3.1 Before Control Panel Power Up, Disconnect all control terminals (X1~X24, Y0~Y22, L1~L26,etc.,) of Main Control Board (MCB) of NICE1000+
- 5.3.2 Switch on the main power supply Circuit Breaker; check the incoming voltage level between R vs S, S vs T, T vs R and R S T with respect to N at Lift Control Panel using Multi meter



- 5.3.3 Make sure that the Incoming Voltage level satisfies the specification
- 5.3.4 Turn ON the NICE1000+ Control Panel Circuit Breakers one by one and check the voltage level simultaneously; Make sure that the voltage levels are within specified limits (Refer Electrical Drawing)



- 5.3.5 Verify that the following voltage levels are OK and within the limit
 - 230VAC Level
 - ± 24 VDC Level
 - 110VAC Level
 - ± 110 VDC Level (If present)
- 5.3.6 After confirming the correct voltage level, switch OFF the NICE1000+ Control Panel Circuit Breakers
- 5.3.7 Reconnect the control terminals (X1~X24, Y0~Y22, L1~L26,etc.,) of Main Control Board (MCB) of NICE1000+



- 5.3.8 Verify the control panel field wirings
- 5.3.9 Verify the connection and Elevator control Panel Earthing once again before power ON. Now TURN ON the control panel Circuit Breakers



5.4 Remote MDKE LED Keypad function

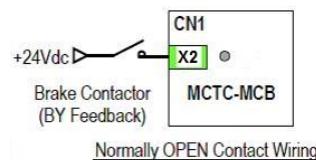
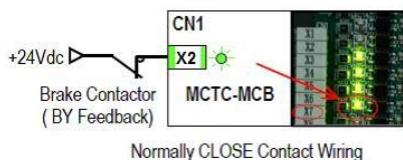


Running Status Indicator Details:

Indicator appearance	Meaning
Hz RPM %	Hz for frequency
Hz RPM %	A for current
Hz RPM %	V for voltage
Hz RPM %	RPM for rotational speed
Hz RPM %	% for anything relevant

5.5 Input and Output functional sequence of Main Control Board (MCTC-MCB-H) of NICE 1000+

- ✓ After switching ON the control Panel MCBs, the Safety Contactor (**SC**) will get **ON** if Safety Circuit is properly closed (Mainly for UPS Ready control Panel)
- ✓ Once **SC contactor gets ON**, three phase power supply reaches the Main NICE drive (**Note: If SC is OFF, then there will not be any display on Drive on board Display**)
- ✓ **Input terminal points X1~X24** of MCB located left side of the Board are **Positive Logic Signal Inputs** which needs **+24VDC positive** power supply for enabling and disabling the any given input signal. Example case as below



Timing Diagram



Timing Diagram



- ✓ **High Voltage Input terminal Points (X25~X27)** of MCB which are located bottom side of the Board are Active High Inputs which needs **Phase (P) or DC (+)** of **110VAC/DC** power supply for enabling and disabling the safety circuit function
- ✓ These **110VAC/DC voltage safety points (X25~X27)** are **first and most priority** inputs in the NICE1000+ Lift controller
- ✓ **Err41** will be displayed if the Safety circuit feedback **LED X25 is OFF**. The safety circuit wiring should be followed as per the NICE1000+ Electrical drawing
- ✓ **Err35 will be displayed on every power ON** until the Learn Run/Shft Tuning is done. **Err35 will not affect the Inspection Run.** But Err35 must be reset using the Keypad reset button before carry out the Motor tuning
- ✓ For PMSM Gearless machine, **Err20** will be displayed if Machine Encoder is not connected with suitable PG card on NICE unit for available Encoder model or wrong Encoder Parameter entry and also wrong/improper encoder signal wire sequence
- ✓ If all the power supply connections and field wirings are ok, then the corresponding Green LED's on the Main Control Board (Located above the Drive) will glow
- ✓ Can also use Remote LED keypad using F5-29, F5-30, F5-31 and F5-32 to view the I/O's

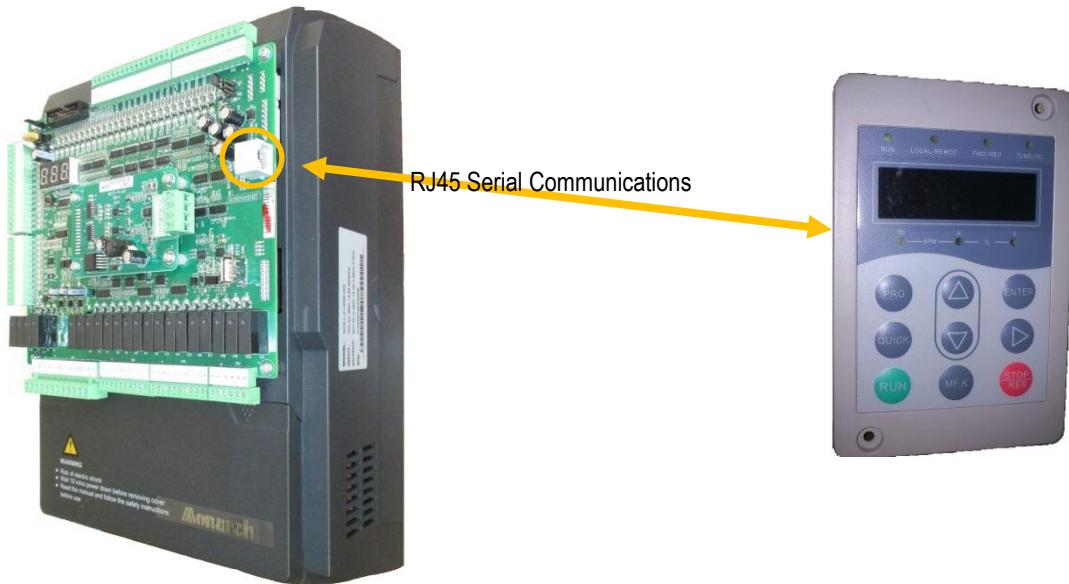
5.6 Input terminal LED Sequence for Main Control Board (MCB) while Initial start-Up



Type of Input	Input Terminal	LED status	Parameter Value	Contact Type	Remarks
Running Contactor Feedback (SW)	X2	ON	F5-02=104	NC	If X2 LED off, then the drive gives Err36 while start
Brake Contactor Feedback (BY)	X3	ON	F5-03=105	NC	If X3 LED off, then the drive gives Err37 always
Inspection mode input signal	X4	OFF	F5-04=109	NC	OFF→Inspection mode ON→Normal Mode
Inspection mode UP signal	X5	OFF	F5-05=10	NO	For UP direction command in INS mode
Inspection mode DOWN signal	X6	OFF	F5-06=11	NO	For DOWN direction command in INS mode
UP direction limit signal	X9	ON	F5-09=115	NC	UP and Down Limit and Slow down Switches must be connected for Inspection run and for motor tuning
Down direction limit signal	X10	ON	F5-10=116	NC	
Up terminal slowdown signal	X11	ON	F5-11=117	NC	
Down terminal slowdown signal	X12	ON	F5-12=118	NC	
FX-Shorting Contactor Feedback signal	X19	ON	F5-19=107	NC	Applicable for PMSM Gearless machine. Err29 if X19 LED is OFF
Rescue function-UPC contactor Feedback Signal	X22	ON	F5-22=133	NC	Applicable for UPS mode Rescue is enabled
Safety Circuit feedback signal (110VAC/DC Input)	X25	ON	F5-25=01	NO	If all the field safety circuits are not ok and X25 LED is OFF, then the display shows Err41
Door lock safety circuit feedback signal1(Landing Door) (110VAC/DC Input)	X26	ON	F5-26=02	NO	If all Landing doors are safely closed, then X26 LED gets ON
Door lock safety circuit feedback signal2(Car Door) (110VAC/DC Input)	X27	ON	F5-27=03	NO	If car door is safely closed, then X27 LED gets ON

5.7 NICE1000+ Start-up Parameterisation

Connect the Remote LED Keypad as shown in below



5.7.1 Take down the motor Nameplate and encoder details; enter into the NICE1000+ using Remote LED Keypad

Description	Parameter	Set actual value	Remarks
Motor Parameter Details			
Rated Power (KW)	F1-01		Enter the correct Motor nameplate value in to the corresponding Drive Parameter Asynchronous Motor (Geared) Synchronous Motor (Gearless)
Rated Voltage (V)	F1-02		
Rated Current (I)	F1-03		
Rated Frequency (F)	F1-04		
Rated Speed (RPM)	F1-05		
Motor Type Selection	F1-25	0→Asynchronous 1→Synchronous	
Encoder Parameter Details			
Encoder Type Selection	F1-00	0→Sin/Cos or Endat 2→Incremental	Enter the correct Encoder details
Pulse Per Revolution (PPR)	F1-12	1024 or 2048	
Elevator Running Speed Parameter Details			
Rated speed of Elevator	F0-04	(Enter the Elevator Rated speed in m/s)	Enter the Rated speed of the elevator
Max speed of Elevator	F0-03	(Enter the required Max. Elevator running speed in m/s)	Enter the Max speed of the Elevator (Limited by Rated speed setting F0-04)
Slow speed	F3-11		Used for Inspection speed

5.8 Commissioning at Inspection Speed

To implement accurate control on the motor, motor auto-tuning must be performed before the use of the NICE1000+. Ensure that the installation and wiring satisfy the safety requirements and technical specifications of the elevator equipment before the auto-tuning

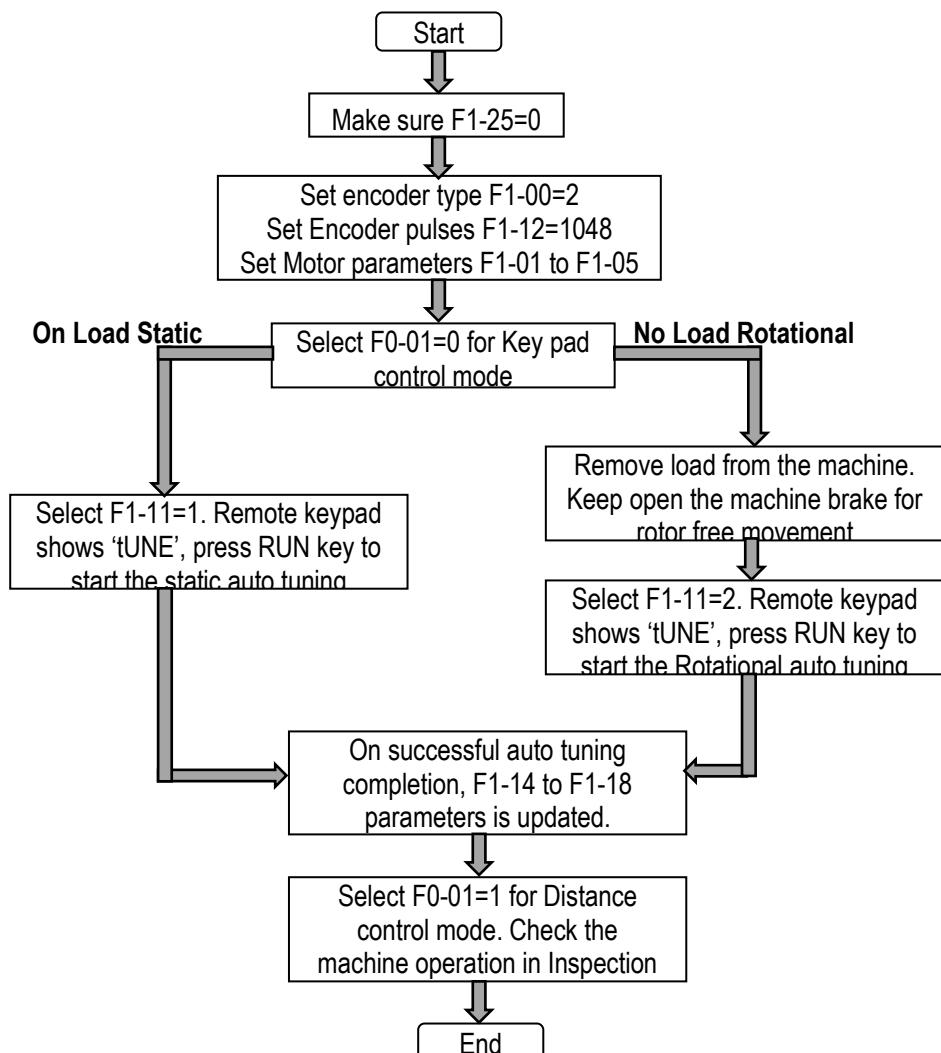
Motor Tuning process

- Actual motor name plate details must be set in NICE1000+ parameters (F1-01~F1-05) before start of motor tuning process
- Actual Encoder details must be set (F1-00→Encoder type, F1=12→No of Pulses)

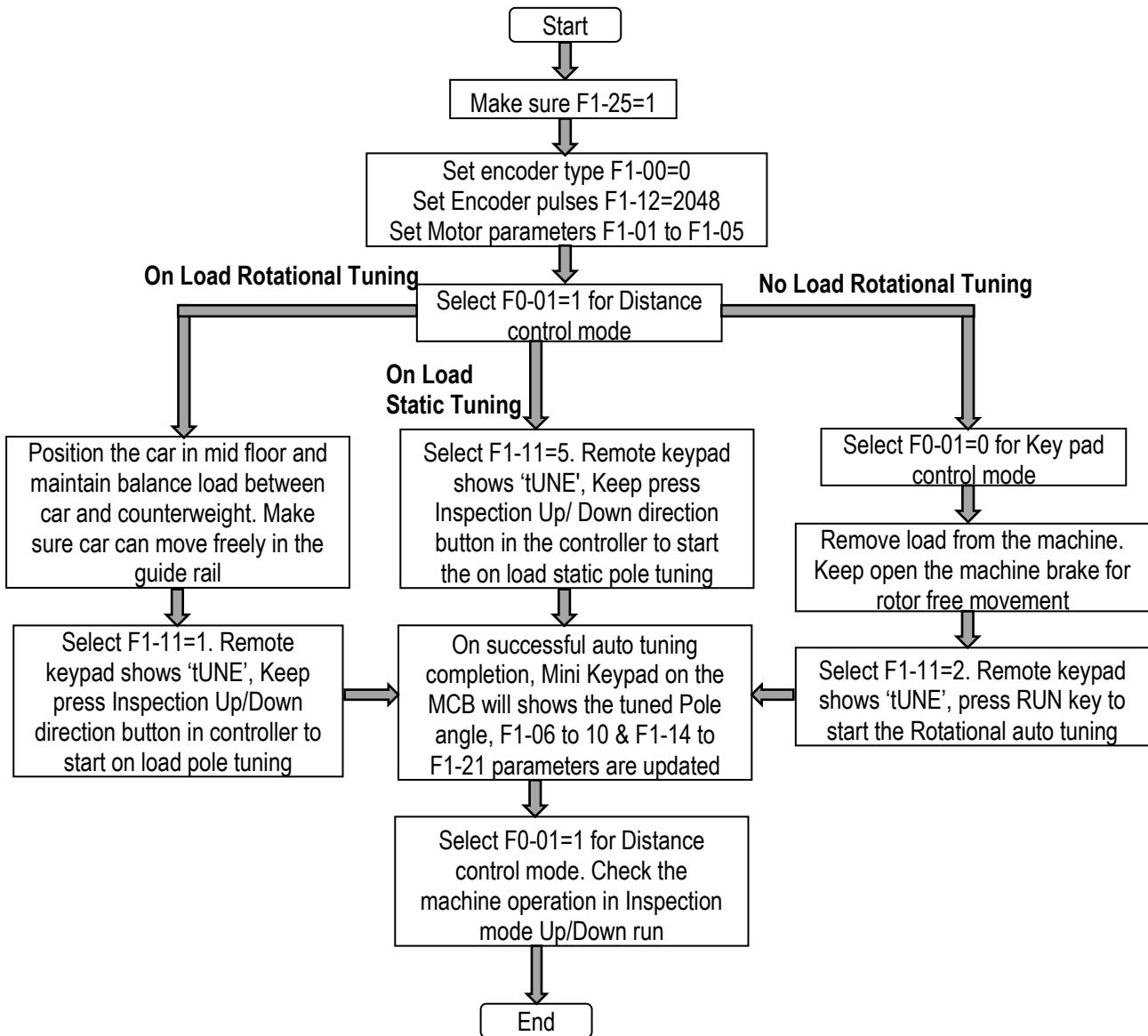
Machine Tuning Methods	Asynchronous Machine (Geared)	Synchronous Machine PMSM (Gearless)	Conditions
Static No load Auto Tuning	F1-11=1	F1-11=5	<ul style="list-style-type: none"> • With Load on Machine • Brake applied condition
On Load Rotational tuning	N/A	F1-11=1	<ul style="list-style-type: none"> • Tuning takes place during Inspection mode Up/Down running with load on machine
No load Rotational Tuning	F1-11=2	F1-11=2	<ul style="list-style-type: none"> • No Load on Machine • Brake released condition

Important Note: No load Rotational Tuning will give best result and ride quality

5.8.1 For Asynchronous Machine (Geared)



5.8.2 For Synchronous Motor(Gearless Machine-PMSM)



Caution:



Tuning with Load on Gearless Hoisting PMSM Motor

- On-Load tuning is to be carried out by well-trained Engineer & very carefully. Tuning should not be carried out by keeping the Lift in terminal floors
- Maintain balanced load on Car and CWT side and locate the **Elevator car in midway** of the shaft and Make sure the **free movement of Car and CWT in the guide rail**

Note: Follow the tuning process at least 3 times and verify the parameter F1-06 value that the variation tolerance is within the range of $\pm 5^\circ$

5.8.3 Tabular Column for Functional Output sequence of the NICE1000+

Function	Gearless – Syn PMSM Machine			Geared - Asyn Machine			Remarks
Inspection Mode	X4 OFF			X4 OFF			X4 OFF for Inspection Mode X4 ON for Normal Mode
INS Up/Down button Command	X5/X6 ON			X5/X6 ON			If X5/X6 is not ON while Up/Down button pressed, then the lift will not give any output
RCR Contactor	Y6 ON X22 OFF			Y3 ON X22 OFF			Applicable only for Manual Door
FX-Shorting Contactor	Y3 ON X22 OFF			Not Applicable			Applicable for all PMSM Gearless machine. Improper operation leads to Err29. Check corresponding parameter setting
SW-Drive Output Contactor	Y1 ON X2 OFF			Y1 ON X2 OFF			Improper operation sequence leads to Err36. Check corresponding parameter setting and wiring
BY-Brake Contactor	Y2 ON X3 OFF			Y2 ON X3 OFF			Improper operation sequence leads to Err37. Check corresponding parameter setting and wiring

5.8.4 Error in tuning process

Error Code	Fault Details	Remedies
Err20	Encoder Fault	<ul style="list-style-type: none"> ➤ Check the Encoder Parameter F1-00=0 & F1-12=2048 ➤ Check the Motor name plate parameter ➤ Thoroughly check the Encoder signal wiring, pin configuration, Encoder cable and its pin soldering at D-Type connector
Err16	Encoder Fault	<ul style="list-style-type: none"> ➤ Check the machine, Encoder and control Panel for proper Earthing ➤ Check the Brake operation while tuning mode starts ➤ Check the free movement of machine when brake opened ➤ Check the Car and CWT free movement(If necessary apply guide rail lubrication)
Err33	Lift speed abnormal Fault	<ul style="list-style-type: none"> ➤ Reduce the speed loop gain F2-00 & F2-03 ➤ Keep F2-02=0.5HZ & F2-05=1.5HZ for machine having less than 20HZ frequency
Err19	Tuning Over time fault	<ul style="list-style-type: none"> ➤ Thoroughly check the Encoder signal wiring, pin configuration, Encoder cable and its pin soldering at D-Type connector (Especially Z+ and Z- signal issue)
Err02	Over Current Fault	<ul style="list-style-type: none"> ➤ Output terminal Short (U V W) ➤ Motor winding short with motor body ➤ Failed enable UVW shorting FX contactor in case of PMSM ➤ Check the Brake operation while tuning mode starts ➤ Check the free movement of machine when brake enabled

5.9 Inspection Running

- Now the Lift is ready for Inspection running. Please refer content of 5.6 for MCB's LED sequence for Inspection operation
- Make sure that **all safety switches are connected and functioning** properly
- Make sure that the **Up & Down terminal Limit and terminal slowdown switches** are wired up and located in the right position as given in the manual
- Use the UP and DOWN Button in the Inspection board on controller/Car-Top to run the lift in Inspection speed.
- Check the direction of the lift running. **X5 LED** in the Main Control Board (MCB) glows when **UP button** is pressed. During this time, lift should run in **UP direction** and for **DOWN button**, **X6 LED glows** and lift runs in **Down direction**.
- If the **running direction is wrong**, then Check the inspection UP/down terminal wiring or modify the parameter **F2-10 (0↔1)**
- If **Err20** comes after some distance travelled in Inspection mode, refer the error history for remedies

6. Normal/High Speed Operation

6.1 Elevator Shaft Learning Process

Ensure that the hoist-way top and bottom **slowdown terminal**, **Direction Limit switches** and floor level **magnetic plates or flags** are installed correctly before performing shaft self-learn.

Floor level switch cutting plates/flags (Door Zone)



Step 1:

- Run the lift in Inspection mode and check the encoder pulse parameter F4-03 for pulse variation.
- **Pulse value** should **increase** when the lift runs in **UP direction** and **decrease** when the lift runs in **Down direction**
- Make sure that the all required mechanical installation and field wiring are completed. Take the lift to bottom terminal floor level using control panel Inspection in inspection speed
- Observe the X1~X24 input terminal LEDs for proper operation of **Floor/Door zone(X1 LED)** and **Up/Down terminal Limit and slowdown switches(X09,X10,X11 & X12 LEDs)**
- Locate the lift car in bottom most floor level, Down terminal Slowdown switch gets operated (**X12 'OFF'**) and Floor level/Door Zone Switch (F5-01=003) gets operated (**X1 'ON'**)

Step 2: Set the following parameters

Description	Parameter code	Default Value	New Value	Remarks
Highest Floor	F6-00	5		Enter the total number of floor (no. of opening)
Lowest Floor	F6-01	1	1	

Step 3: Now select the parameter **F1-11=3(Shaft auto learning mode)** and Enter

or

Keep Pressing '**S1**' button located on MCTC-MCB of NICE 1000+ for minimum 3secs



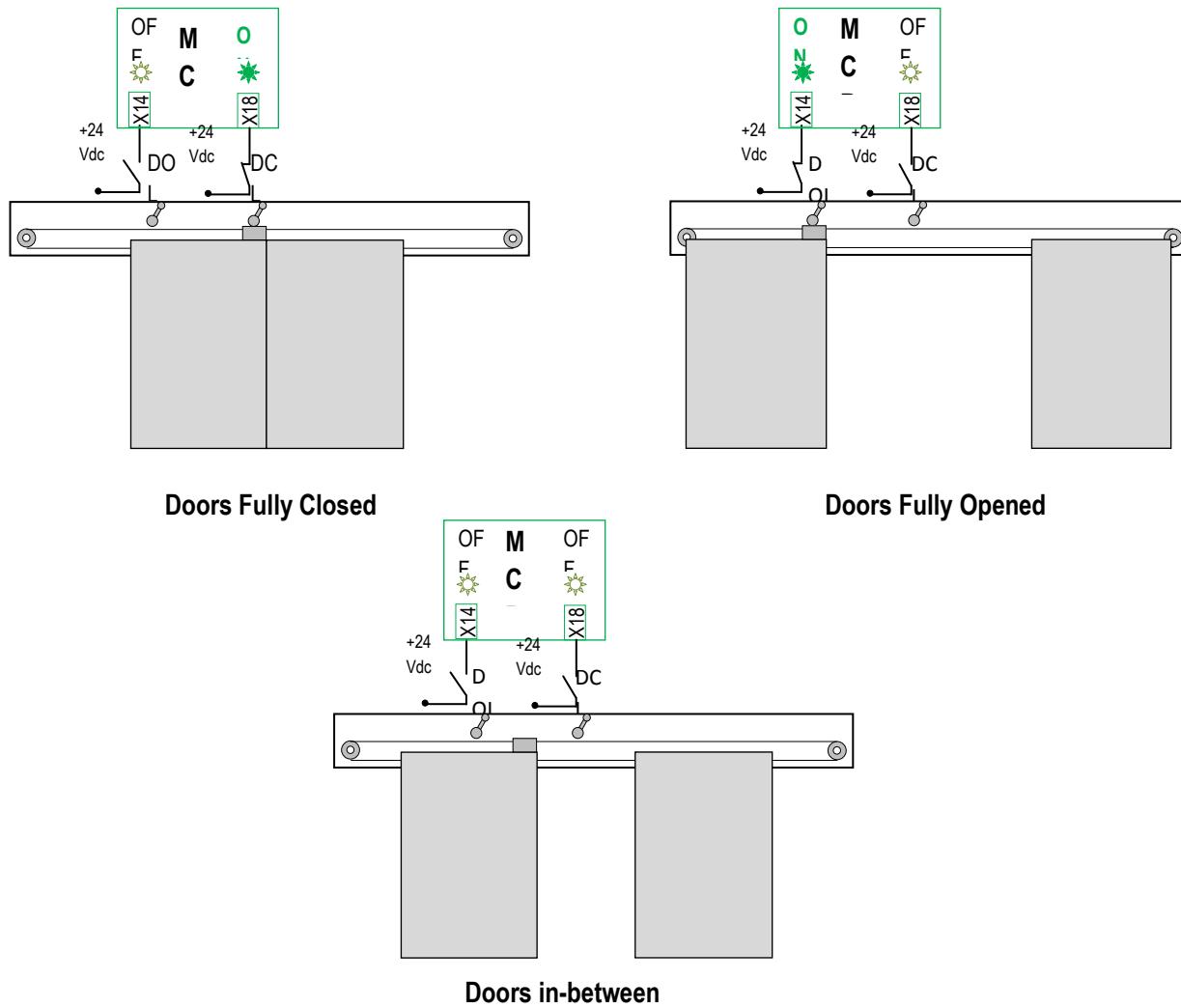
- Lift starts to run with Inspection speed towards up terminal floor.

- On detection every Floor Level/Door zone Fag/Plate, the floor counting will increase on MCB display
- On detection of Up terminal slowdown switch, elevator speed reduced to 0.100mps
- On detection of up terminal floor level/Door zone switch signal, Lift stops and Shaft learning gets completed
- During auto learn, NICE1000+ system measures the shaft travel distance using Encoder feedback
- Counts the number of floors using Floor level/Door zone switch signal and stores counted encoder pulses in the form of bits in F4 Floor parameters
- On completion of auto shaft learning without any Error, operating LED keypad displays the normal status.

(Note: If Err35 comes during shaft learning, refer the Error history for remedies and re-do the shaft tuning)

6.2 Door operator commissioning

6.2.1 Auto door DOL and DCL 'NO' type feedback status on MCB of NICE1000+ for different door position



6.2.2 Auto Door Setup

- NICE1000+ system is capable for double side door operator system (Front and Back Doors)
- Door Open Limit and Door Close Limit switch feedbacks are mandatory for NICE1000+ system function (to be connected to X14 and X18 Default input terminals for Front door)
- If the third party door drive system is used, follow the door drive commissioning instruction and commission the door drive along with NICE1000+ input and output interconnections as shown in above model wiring diagram
- Follow the commissioning procedure provided by door operator system supplier

- Once door operator function is completed successfully and after completion of Door operator commissioning and NICE1000+ shaft learning process, Lift is ready for normal operation. Now the lift car will be located in top most floor terminal level and the corresponding input terminal sequence will be seen in the NICE1000+ Main Control Board LEDs as shown in the below table

Functional Sequence for Auto door operation at Main Control Board (MCB)

Door Close Command (Y7 relay gets ON)				
Feed Back Signal	Door Fully opened	Door In between	Door Fully Closed	Remark
DOL DCL	X14→ON X18→OFF	X14→OFF X18→OFF	X14→OFF X18→ON	➢ Improper Sequence can lead to Err53 ➢ If DOL is not detected even after door protection time, gives Err55
Landing Door Safety Car Door Safety	X26→OFF X27→OFF	X26→OFF X27→OFF	X26→ON X27→ON	
Door Open Command (Y6 relay gets ON)				
Feed Back Signal	Door Fully Closed	Door In between	Door Fully opened	Remark
DOL DCL	X14→OFF X18→ON	X14→OFF X18→OFF	X14→ON X18→OFF	➢ Improper Sequence can lead to Err53 ➢ If DOL is not detected even after door protection time, gives Err55
Landing Door Safety Car Door Safety	X26→ON X27→ON	X26→OFF X27→OFF	X26→OFF X27→OFF	

6.2.3. Manual Door Setup Procedure

- Follow the NICE1000+ wiring diagram for manual door operation
- Enable Bit0=1 of A1-00 for manual door operation
- Retiring cam contactor (RCR) will be operated through 'Y6' relay of MCB, program Y6 relay as F7-06=30
- Disable Door Open Limit (DOL), Door Close Limit (DCL), Door Sensor and Door open Button function using F5-14=0, F5-18=0, F5-15=0 and F6-11=0

6.3 Normal Operation & Its Signal Verification

- Once the Door commissioning is completed, the lift is ready for normal operation
- Turn ON the Inspection button into Normal model

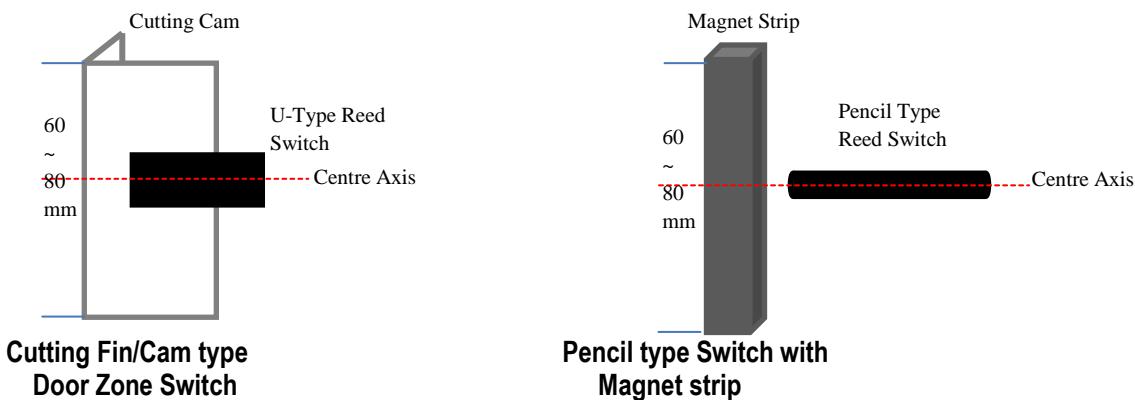
Input signal status of Main Control Board (MCB) while the Elevator at top terminal floor level with doors are closed in normal mode

Type of Input	Default Input Terminal	LED status	Default Parameter Value	Default Contact Type	Remarks
Door Zone Switch signal	X1	ON	F5-01=003	NO	
Running Contactor Feedback (SW)	X2	ON	F5-02=104	NC	If X2 LED off, then the drive gives Err36 while start
Brake Contactor Feedback (BY)	X3	ON	F5-03=105	NC	If X3 LED off, then the drive gives Err37 always
Inspection mode input signal	X4	ON	F5-04=109	NC	OFF → INS mode ON → Normal Mode
Inspection mode UP signal	X5	OFF	F5-05=010	NO	For UP direction command in INS mode
Inspection mode DOWN signal	X6	OFF	F5-06=011	NO	For DOWN direction command in INS mode
UP direction limit signal	X9	ON	F5-09=115	NC	
Down direction limit signal	X10	ON	F5-10=116	NC	
Up terminal slowdown signal	X11	OFF	F5-11=117	NC	As the Lift car is located at Top Most Floor where the UP terminal slowdown got activated
Down terminal slowdown signal	X12	ON	F5-12=118	NC	
Over Load Feedback Signal	X13	ON	F5-13=119	NC	If Load cell is not available, keep F5-13=0
Door Open Limit feedback signal	X14	OFF	F5-14=022	NO	If DO limit signal is 'NC' contact, keep F5-14=122
Door IR sensor signal	X15	ON	F5-15=126	NC	If Door IR sensor feedback is 'NO', keep F5-15=26
Door Close Limit Feedback signal	X18	ON	F5-18=024	NO	If DC limit signal is 'NC' contact, keep F5-14=124
Shorting Contactor Feedback (FX)	X19	ON	F5-19=107	NC	Applicable for PMSM only
UPC contactor Feed back	X22	ON	F5-22=133	NC	Applicable for UPS ready ARD function
Safety Circuit feedback signal	X25	ON	F5-25=01	NO	If all the field safety circuits are ok, then the X25 LED gets ON
Door lock safety circuit feedback signal 1	X26	ON	F5-26=02	NO	If Car Door is safely closed, then X26 LED gets ON
Door lock safety circuit feedback signal 1	X27	ON	F5-27=03	NO	If All landing doors are safely closed, then X26 LED gets ON

- If the Input Signal sequences are ok as per the requirement, then the lift can be run in normal speed.
- Select the Normal running speed using the parameter F0-03
- During Normal Operation, if Error53 comes, it is due to the improper door drive close and open limit feedback and also due to presence of landing door and car door safety by-pass

6.4 Floor Level Adjustment

- For **Floor Level Adjustment**, Confirm that the Floor level/Door zone cutting cam/magnet centre is matched with the centre of the switch when the lift is in exact floor level



- Maintain the same gap between Cutting Cam to Reed switch/ Magnet strip to Reed switch in every floor
- For further adjustment, use the **F4-00 = 30(default)**. Increase this value bit by bit if the lift car stops before the floor level and vice versa
- For example, lift car stops 10mm above the floor level in the landing while comes from bottom floor to this floor, then reduce the F4-00 = 20 (30-10)

Individual Floor Level Adjustment using COP buttons

Every Floor Level can be adjusted using Car call COP buttons for better floor accuracy

Step 1: Keep the elevator car in Normal operation

Step 2: Using remote keypad, set Fr-00=1

Step 3: Once Fr-00 becomes 1, Elevator car automatically run to top most floor level and stand there by keep open the car door

Step 4: Get into the elevator car for every floor level adjustment using Car call COP button

Step 5: Check the top most floor level. If it is over travelled; floor level value needs to be reduced and if it is under travelled; floor level value needs to be increased

Step 6: Now we have to use Car call button of COP for floor level value increase and decrease. Top most floor car call button is used to increase the floor level value if elevator car is under travelled and Bottom most floor car call button is used to decrease the floor level value if elevator car is over travelled.



Fig:1



Fig:2



Fig:3

Fig:1 → Top most floor Car call button for 5th Floor is used to increase the floor level value and Each trigger on call button gives floor level value increase of 1mm

Fig:2 → Bottom most floor Car call button for Gnd Floor is used to decrease the floor level value and Each trigger on call button gives floor level value decrease by 1mm

Fig:3 → Top most floor and Bottom most floor car call buttons 5th and Gnd Floors are together used for Enter the changed Floor level Value and to allow the elevator COP for other car call to run the elevator to other floor in Floor levelling mode and to adjust the other floor level

Step 7: If considering top floor level is over travelled by 10mm, then bottom most floor button must be pressed and released (trigger) ten times as each press decreases floor level by 1mm. Once it is done, finally press Top most and Bottom most car call buttons together to Enter and Accept the subtracted 10mm value into the NICE1000+ for top most floor

Step 8: Now Car door will close and next floor car call will be accepted and can move the car top the next registered car call floor. Follow the same procedure to vary the floor level value if needed

Step 9: Once all floor levels are properly adjusted, take the elevator car to top floor and keep the Fr-00=0 to come out from the Floor Levelling mode to normal operation mode

Step 10: Check the floor level on every floor. The maximum floor level adjustment distance is ±30mm

6.5 Car & Landing Calls configuration

- All Car and Landing calls can be given to the L1~L26 terminal in Main Control Board (MCB) of NICE1000+
- Call Function input terminal L1~L26 of MCB can be programmed in F6-11~F6-36 using Keypad
- In NICE1000+, Call functions are programmable and the default NICE1000+ unit is programmed for 5 floor full collective call function
- For better understanding, Two different configurations are given below

6 floors (G+5) Full collective configuration setting and its functional output terminal

Floor Call Details	Corresponding Parameter Setting	Call buttons Connection Terminal in MCB
Car Call Function		
Gnd (Bottom most) floor Car Call	F6-15=211 (Default)	L5
1 st Floor Car call	F6-16=212 (Default)	L6
2 nd Floor Car call	F6-17=213 (Default)	L7
3 rd Floor Car call	F6-18=214 (Default)	L8
4 th Floor Car call	F6-19=215 (Default)	L9
5 th Floor (Top most) Car call	F6-20=216 (Default)	L10
UP direction Landing Call Function		
Gnd Floor Up landing Call	F6-23=231 (Default)	L13
1 st Floor Up landing Call	F6-24=232 (Default)	L14
2nd Floor Up landing Call	F6-25=233 (Default)	L15
3 rd Floor Up landing Call	F6-26=234 (Default)	L16
4th Floor Up landing Call	F6-27=235 (Default)	L17

Down Direction Landing Call Function		
1st Floor Down landing Call	F6-32=252 (Default)	L22
2 nd Floor Down landing Call	F6-33=253 (Default)	L23
3 rd Floor Down landing Call	F6-34=254 (Default)	L24
4 th Floor Down landing Call	F6-35=255 (Default)	L25
5 th Floor Down landing Call	F6-36=256 (Default)	L26

9 Floors (G+8) Down Collective configuration setting and its functional output terminal

Floor Call Details	Corresponding Parameter Setting	Call buttons Connection Terminal in MCB
Car Call Function		
Gnd (Bottom most) floor Car Call	F6-15=211 (Default)	L5
1 st Floor Car call	F6-16=212 (Default)	L6
2 nd Floor Car call	F6-17=213 (Default)	L7
3 rd Floor Car call	F6-18=214 (Default)	L8
4 th Floor Car call	F6-19=215 (Default)	L9
5 th Floor Car call	F6-20=216 (Default)	L10
6 th Floor Car Call	F6-21=217 (Default)	L11
7 th Floor Car Call	F6-22=218 (Default)	L12
8 th Floor Car Call	F6-23=219 (Default)	L13
Landing Call Function		
Gnd Floor UP Landing call	F6-24=231 (Default)	L14
1st Floor Down landing Call	F6-32=252 (Default)	L22
2 nd Floor Down landing Call	F6-33=253 (Default)	L23
3 rd Floor Down landing Call	F6-34=254 (Default)	L24
4 th Floor Down landing Call	F6-35=255 (Default)	L25
5 th Floor Down landing Call	F6-24=236	L26
6 th Floor Down landing Call	F6-25=237	L15
7 th Floor Down landing Call	F6-26=238	L16
8 th Floor Down landing Call	F6-27=239	L17

6.6 Floor display Setting

- NICE1000+ Integrated Solution for Elevator can provide Four different output functions for different floor displays

MCB Relay outputs	Seven Segment output FE-12=0 (Default)	Binary Output FE-12=3	BCD Output FE-12=1	Grey Output FE-12=2
Y10 to Y27 Default Values F7-10(Y10) = 10 F7-11(Y11) = 11 F7-12(Y12) = 12 F7-13(Y13) = 13 F7-14(Y14) = 14 F7-15(Y15) = 15 F7-16(Y16) = 16	Low (Right) Digit 'a' Segment→10 'b' Segment→11 'c' Segment→12 'd' Segment→13 'e' Segment→14 'f' Segment→15 'g' Segment→16 High (Left) Digit 'a' Segment→41 'b' Segment→42 'c' Segment→43 'd' Segment→44 'e' Segment→45 'f' Segment→46 'g' Segment→47	Binary bit0→10 Binary bit1→11 Binary bit2→12 Binary bit3→13 Binary bit4→14 High bit→28	Low (Right) Digit Binary bit0→10 Binary bit1→11 Binary bit2→12 Binary bit3→13 Binary bit4→14 High (Left) Digit High bit→28	Low (Right) Digit Grey bit0→10 Grey bit1→11 Grey bit2→12 Grey bit3→13 High (Left) Digit High bit→28

Floor Position Parameter Setting

Parameter for Floors	Display Setting Value	Sample different display format output sequence
FE-01 for Floor 1	00: display "0"	
FE-02 for Floor 2	01: display "1"	
FE-03 for Floor 3	02: display "2"	
FE-04 for Floor 4	03: display "3"	
FE-05 for Floor 5	04: display "4"	
FE-06 for Floor 6	05: display "5"	
FE-07 for Floor 7	06: display "6"	
FE-08 for Floor 8	07: display "7"	
FE-09 for Floor 9	08: display "8"	
FE-10 for Floor 10	09: display "9"	
FE-11 for Floor 11	10: display "10"	
FE-15 for Floor 12	11: display "b"	
FE-16 for Floor 13	12: display "G"	
FE-17 for Floor 14	13: display "H"	
FE-18 for Floor 15	14: display "L"	
FE-19 for Floor 16	15: display "n"	
	16: display "P"	7segment display output
	17: Reserved	To display '0' at Floor 1, set FE-01=1900
	18: display " "	To display 'G' at Floor 2, set FE-02=1912
	19: no display	To display '12' at Floor 12, set FE-03=0102
	23: Display "C"	Binary Display output
	24: Display "d"	For FE-01=1900, Hb=0, b3=0, b2=0, b1=0, b0=0
	25: Display "E"	For FE-04=1903, Hb=0, b3=0, b2=0, b1=1, b0=1
	26: Display "F"	For FE-14=0103, Hb=1, b3=1, b2=1, b1=0, b0=1
	28: Display "J"	BCD Display output
	31: Display "o"	For FE-01=1901, Hb=0, b3=0, b2=0, b1=0, b0=1
	35: Display "U"	For FE-05=1906, Hb=0, b3=0, b2=1, b1=1, b0=0
	No Display >35	For FE-12=0101, Hb=1, b3=0, b2=0, b1=0, b0=1
		Grey Display output
		For FE-02=1902, Hb=0, b3=0, b2=0, b1=1, b0=1
		For FE-03=1903, Hb=0, b3=0, b2=0, b1=1, b0=0
		For FE-15=0105, Hb=1, b3=1, b2=0, b1=0, b0=0

Example setting for b+G+4 landing lift (6 Floors) for '7' Segment output

Parameter	New Setting	Display Type
FE-01(basement Floor)	1911	To display 'b' for basement Floor
FE-02 (Ground Floor)	1912	To display 'G' for Ground Floor
FE-03 (First Floor)	1901	To display '1' for First Floor
FE-04 (Second Floor)	1902	To display '2' for Second Floor
FE-05 (Third Floor)	1903	To display '3' for Third Floor
FE-06 (Fourth Floor)	1904	To display '4' for Fourth Floor

6.7 Rescue function using UPS ready on power failure

- Confirm the Rescue functional wiring is done as per the NICE1000 Electrical drawing to connect the Suitable rated UPS to the controller
- Set the following parameter to enable the Rescue function

Parameter	Function	Remarks
F5-22=133	UPC contactor feedback function	X22 LED must be ON at MCB, otherwise Lift won't work in Normal mode
F7-00=32	UPC contactor enable function during power failure	UPC contactor used to connect the single phase UPS power supply to the Controller
F8-10=1	220VAC UPS function enable	
F8-09=0.050	Rescue mode Elevator speed	Lesser speed will give Err30 Higher speed will drain UPS quickly Keep Moderated speed
F6-69	UPS mode emergency rescue special function	Refer the Parameter list for more functional details

Reference: UPS Rating Selection for suitable Motor rating

UPS Power	Controller Power	Remarks
≥1.6 KVA(1150-1200W)	P ≤ 3.7KW	Given UPS rating is for reference and Selection of UPS rating must be considered with the other control panel and field equipment. Consultate with supplier
≥2 KVA(1400-1600W)	P ≤ 5.5KW	
≥2.5 KVA(1750-1950W)	P ≤ 7.5KW	
≥3 KVA(2100-2400W)	P ≤ 11KW	

Note: UPS power rating selection is mainly based on machine, consultate machine supplier for suitable UPS rating for low frequency rescue operation

6.8 Load Weigh Function

NICE1000+ system capable of function with Digital or Analog Load weigh system. On selection of any one of the load weigh system, the corresponding parameter to be chosen.

Description	Code	Setting Range	Default Value	Remarks
Weighing Input Selection	F8-08	0→Digital Load weigh Input 1→Analog load weigh Sampling	0	
Pre-set Torque Selection	F8-01	0→Pre-set torque invalid 1→Pre-set torque Valid based on Analog Load weigh 2→Automatic pre-torque compensation	0	Keep F8-01=2, if no load weigh system is used
Load Weigh Type Selection	F8-08	0→ Digital Type Load weigh 1→ Reserved 2→ Analog Type Load Weigh	0	

6.8.1 For Digital Load Weigh (Cell) system

- Digital output of Over Load signal (F5-13=119 for 'NC type') from the Load Weigh system is to be connected to Input terminals X13 of Main Control Board (MCB)
- Digit output of Full Load (F5-xx=120 for 'NC' type) from the Load weigh system can be used in NICE1000+ system by configuring anyone of the free Input terminals (X) of Main Control Board (MCB)

6.8.2 For Analog Load Weigh System

- Connect Analog Load weigh 0~10vdc output to MCB terminals Ai & M

Analog Load Weigh Tuning

- Keep Lift Car at floor level with no load inside car
- Select F8-00 and keep 0% load inside the car
- Load the Car with some ratio of load. Example loading car with 30% of car full load, now enter F8-00=30%
- Based on No load and 30% load tuning calibration, NICE calculate Car load. No load value will be saved F8-06 and full load at F8-07. F8-05 shows the actual car current load
- These values are based Analog Load weigh tuning
- No load and Full load tuned value can be adjusted using F8-06 and F8-07 respectively

6.9. Ride Comfort Fine Tuning

6.9.1. Starting Jerk

For Rollback and Surge Forward issue, adjust following parameter

Description	Code	Default	Rollback	Surge Forward
Zero Servo Speed Loop KP	F2-12	0.50	Increase ↑	Decrease ↓
Zero servo speed Loop TI	F2-13	0.60	Increase ↑	Decrease ↓

6.9.2. Start Jerk and Vibration while running

Fine tune the speed loop gain using following parameters

Description	Code	Default	Remarks
Proportional gain 1 of Speed Loop (Kp1)	F2-00	40	Increase or Decrease to improve Smooth start
Integrate time 1 of Speed Loop (Ki1)	F2-01	0.60	
Switching Frequency 1	F2-02	2.00	
Proportional gain 2 of Speed Loop (Kp2)	F2-03	35	Increase or Decrease to improve running vibration
Integrate time 2 of Speed Loop (Ki2)	F2-04	0.80	
Switching Frequency 2	F2-05	5.00	

6.9.3. Vibration or Jerk during running

Fine tune the Current loop gain using following parameters

Description	Code	Default	Remarks
Proportional gain of Current loop	F2-06	60	
Integral gain of current loop	F2-07	30	

7. Function Code Table

7.1. Meaning of each column in Function Code Table

Function Code	Indicates the function code parameter
Parameter Name	Indicates the parameter name of the function code
Value Range	Indicates the value range of the parameter
Default	Indicates the default setting of the parameter at factory
Unit	Indicates the measurement unit of the parameter.
Property	Indicates whether the parameter can be modified (including the modification conditions)

The modification property of the parameters includes three types, described as follows

"☆" The parameter can be modified when the controller is in either stop or running state

"★" The parameter cannot be modified when the controller is in the running state

"●" The parameter is the actually measured value and cannot be modified

The system automatically restricts the modification property of all parameters to prevent mal-function

7.2. Function Code Group

F0	Basic parameters	F9	Time parameters
F1	Motor parameters	FA	Keypad setting parameters
F2	Vector control parameters	Fb	Door function parameters
F3	Running control parameters	FC	Protection function parameters
F4	Floor parameters	Fd	Communication parameters
F5	Input terminal parameters	FE	Elevator function parameters
F6	Basic elevator parameters	FF	Factory parameters
F7	Output terminal parameters	FP	User parameters
F8	Enhanced function parameters	Fr	Levelling adjustment parameters
A1	Enhanced Added Function Parameters		

7.3. Function Code in Details

Function Code	Parameter Name	Value Range	Default Value	Unit	Property
F0 - Basic Parameter					
F0-00	Control mode	0: Sensor less Vector Control 1 :Closed-loop vector control (CLVC) 2 : Voltage/Frequency (V/F) control	1	-	★
F0-01	Command source selection	0 :Keypad Control 1 :Distance control	1	-	★
F0-02	Speed in operation panel control	0.050～F0-04	0.050	m/s	☆
F0-03	Max. running speed	0.200～F0-04	0.480	m/s	★
F0-04	Rated elevator speed	0.200～1.750	1.000	m/s	★
F0-05	Max. frequency	10.00～99.00	50.00	Hz	★
F0-06	Carrier frequency	0.5～16.0	6.0	kHz	★

F1 - Motor Parameter					
F1-00	Encoder type selection	0 :SIN/COS & Absolute type Encoder 1: UVW Encoder 2 : A B channel incremental Encoder	0		★
F1-01	Rated motor power	0.7~75.0	Model Dependent	KW	★
F1-02	Rated motor voltage	0~440	Model Dependent	V	★
F1-03	Rated motor current	0.00~655.00	Model Dependent	A	★
F1-04	Rated motor frequency	0.00~99.00	Model Dependent	Hz	★
F1-05	Rated motor rotational speed	0~3000	Model Dependent	RPM	★
F1-06	Initial angle (synchronous motor)	0.0~359.9	Model Dependent	Degree (°)	★
F1-07	Angle at power failure	0.0~359.9	Model Dependent	Degree (°)	★
F1-08	Wiring method	0~15	Model Dependent	-	★
F1-09	ADC sampling delay	0.0~359.9	Model Dependent	-	★
F1-10	Encoder check selection	0~3	Model Dependent	-	★
F1-11	Auto-tuning selection	0: No operation 1: With-load auto-tuning 2: No-load auto-tuning 3: Shaft auto-tuning 1 4: Shaft auto-tuning 2 5: Static auto tuning	0	-	★
F1-12	Encoder PPR	0~10000	1024	PPR	★
F1-13	Encoder signal detection time	0~10.0	1.0	s	★
F1-14	Stator resistance (asynchronous motor)	0.000~30.000	Model Dependent	Ω	★
F1-15	Rotor resistance (asynchronous motor)	0.000~30.000	Model Dependent	Ω	★
F1-16	Leakage inductance (asynchronous motor)	0.00~300.00	Model Dependent	mH	★
F1-17	Mutual inductance (asynchronous motor)	0.1~3000.0	Model Dependent	mH	★
F1-18	Magnetizing current (asynchronous motor)	0.01~300.00	Model Dependent	A	★
F1-19	Shaft Q inductance (torque)	0.00~650.00	3.00	mH	★
F1-20	Shaft D inductance (excitation)	0.00~650.00	3.00	mH	★
F1-21	Back EMF	0~65535	0	-	★
F1-25	Motor type	0: Asynchronous motor 1: Synchronous motor	1	-	★
F2 - Vector Control Parameter					
F2-00	Speed loop KP1	1~100	40	-	★
F2-01	Speed loop TI1	0.01~10.00	0.60	s	★
F2-02	Switchover frequency 1	0.00~F2-05	2.00	Hz	★
F2-03	Speed loop KP2	1~100	35	-	★
F2-04	Speed loop TI2	0.01~10.00	0.80	S	★
F2-05	Switchover frequency 2	F2-02~F0-05	5.00	Hz	★

F2-06	Current loop proportional gain	10~500	60 %	%	★
F2-07	Current loop integral gain	10~500	30 %	%	★
F2-08	Torque upper limit	0.0~200.0	150.0 %	%	★
F2-10	Elevator running direction	0: Direction unchanged 1 :Direction reversed	0	-	★
F2-11	Zero servo current coefficient	0.20~50.0	15	%	★
F2-12	Zero servo speed loop KP	0.00~2.00	0.5	-	★
F2-13	Zero servo speed loop KI	0.00~2.00	0.6	-	★
F2-16	Torque acceleration time	1~500	1	ms	★
F2-17	Torque deceleration time	1~500	350	ms	★
F2-18	Start-up acceleration time	0.000~1.500	0.000	S	★

F3 - Running Control Parameter

F3-00	Start-up speed	0.000~0.030	0.000	m/s	★
F3-01	Start-up Holding time	0.000~0.500	0.000	S	★
F3-02	Acceleration rate	0.200~0.800	0.300	m/s ²	★
F3-03	Acceleration start jerk time	0.300~4.000	2.500	S	★
F3-04	Acceleration end jerk time	0.300~4.000	2.500	S	★
F3-05	Deceleration rate	0.200~0.800	0.300	m/s ²	★
F3-06	Deceleration end jerk time	0.300~4.000	2.500	S	★
F3-07	Deceleration start jerk time	0.300~4.000	2.500	S	★
F3-08	Special deceleration rate	0.200~2.000	0.500	m/s ²	★
F3-09	Pre-deceleration distance	0~90.0	0.0	mm	★
F3-10	Re-levelling speed	0.000~0.080	0.040	m/s	★
F3-11	Inspection speed	0.100~0.500	0.250	m/s	★
F3-12	Up slow-down switch position	0.000~300.00	0.00	M	★
F3-13	Down slow-down switch position	0.000~300.00	0.00	M	★
F3-14	Zero-speed control time at start-up	0.000~1.000	0.200	S	★
F3-15	Brake release delay	0.000~2.000	0.600	S	★
F3-16	Zero-speed control time at end	0.000~1.000	0.300	S	★
F3-17	Low-speed re-levelling speed	0.080 to F3-11	0.100	m/s	★
F3-18	Acceleration rate at emergency evacuation	0.100~1.300	0.300	m/s ²	★

F4 – Floor Parameter (Learn Run Data)

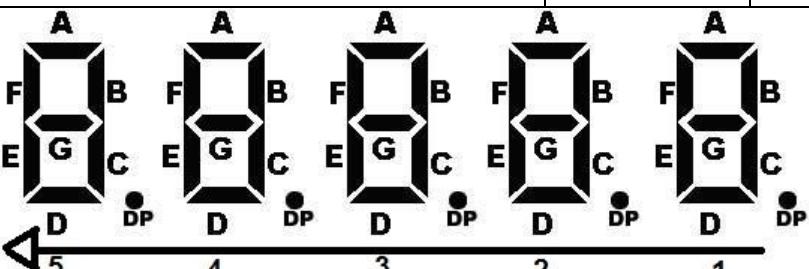
F4-00	Levelling adjustment	0~60	30	mm	★
F4-01	Current floor	F6-01~F6-00	1	-	★

F4-02	High byte of current floor	0~65535	1	Pulses	●
F4-03	Low byte of current floor	0~65535	34464	Pulses	●
F4-04	Length 1 of levelling flag	0~65535	0	Pulses	★
F4-05	Length 2 of levelling flag	0~65535	0	Pulses	★
F4-06	High byte of floor height 1	0~65535	0	Pulses	★
F4-07	Low byte of floor height 1	0~65535	0	Pulses	★
F4-08	High byte of floor height 2	0~65535	0	Pulses	★
F4-09	Low byte of floor height 2	0~65535	0	Pulses	★
F4-10	High byte of floor height 3	0~65535	0	Pulses	★
F4-11	Low byte of floor height 3	0~65535	0	Pulses	★
F4-12	High byte of floor height 4	0~65535	0	Pulses	★
F4-13	Low byte of floor height 4	0~65535	0	Pulses	★
F4-14	High byte of floor height 5	0~65535	0	Pulses	★
F4-15	Low byte of floor height 5	0~65535	0	Pulses	★
F4-16	High byte of floor height 6	0~65535	0	Pulses	★
F4-17	Low byte of floor height 6	0~65535	0	Pulses	★
F4-18	High byte of floor height 7	0~65535	0	Pulses	★
F4-19	Low byte of floor height 7	0~65535	0	Pulses	★
F4-20	High byte of floor height 8	0~65535	0	Pulses	★
F4-21	Low byte of floor height 8	0~65535	0	Pulses	★
F4-22	High byte of floor height 9	0~65535	0	Pulses	★
F4-23	Low byte of floor height 9	0~65535	0	Pulses	★
F4-24	High byte of floor height 10	0~65535	0	Pulses	★
F4-25	Low byte of floor height 10	0~65535	0	Pulses	★
F4-26	High byte of floor height 11	0~65535	0	Pulses	★
F4-27	Low byte of floor height 11	0~65535	0	Pulses	★
F4-28	High byte of floor height 12	0~65535	0	Pulses	★
F4-29	Low byte of floor height 12	0~65535	0	Pulses	★
F4-30	High byte of floor height 13	0~65535	0	Pulses	★
F4-31	Low byte of floor height 13	0~65535	0	Pulses	★

F4-32	High byte of floor height 14	0~65535	0	Pulses	★
F4-33	Low byte of floor height 14	0~65535	0	Pulses	★
F4-34	High byte of floor height 15	0~65535	0	Pulses	★
F4-35	Low byte of floor height 15	0~65535	0	Pulses	★

F5 - Terminal Input Parameter

F5-00	Attendant/Automatic switchover time	3~200	3	s	★
F5-01	X1 function selection	1~99: 'NO' type input 101~199: 'NC' type input	003	-	★
F5-02	X2 function selection	000: Invalid 001: Up Levelling signal 002: Down Levelling signal 003: Door zone signal 004: Run contactor feedback signal 005: Brake output feedback 1signal 006: Brake output feedback 2signal 007: U.V.W Shorting (FX) contactor feedback signal 008: Door lock jump out contactor feedback signal 009: Inspection signal 010: Inspection up signal 011: Inspection down signal 012: Fire Emergency Floor Landing signal 013: Reserved 014: Lift lock signal 015: Up limit signal 016: Down limit signal 017: Up terminal floor slow down signal 018: Down terminal floor slow down signal 019: Over load signal 020: Full load signal 021: Emergency stop (Safety feedback) signal 022: Door 1 open limit signal 023: Door 2 open limit signal 024: Door 1 close limit signal 025: Door 2 close limit signal 026: Door 1 light curtain signal 027: Door 2 light curtain signal 028: Attendant signal 029: Non Stop signal in attendant state 030: Direction changing signal in attendant state 031: Independent running signal 032: Door 2 selection signal 033: UPS valid signal 034: Door Open button Command 035: Door Close button Command 036: Safety circuit 037: Door lock circuit 1 038: Door lock circuit 2 039: Half-loaded signal 040: Motor overheat signal 041: Door machine 1 safety edge signal 042: Door machine 2 safety edge signal 043: Earthquake signal 044: Back door forbidden signal 045: Light-load signal 046: Single/Double door selection	104	-	★
F5-03	X3 function selection	105	-	★	
F5-04	X4 function selection	109	-	★	
F5-05	X5 function selection	010	-	★	
F5-06	X6 function selection	011	-	★	
F5-07	X7 function selection	012	-	★	
F5-08	X8 function selection	014	-	★	
F5-09	X9 function selection	115	-	★	
F5-10	X10 function selection	116	-	★	
F5-11	X11 function selection	117	-	★	
F5-12	X12 function selection	118	-	★	
F5-13	X13 function selection	119	-	★	
F5-14	X14 function selection	022	-	★	
F5-15	X15 function selection	126	-	★	
F5-16	X16 function selection	028	-	★	
F5-17	X17 function selection	030	-	★	
F5-18	X18 function selection	024	-	★	
F5-19	X19 function selection	0	-	★	
F5-20	X20 function selection	0	-	★	

F5-21	X21 function selection	047: Fire emergency floor switchover signal 048: Virtual floor input 049: Fire fighter switch signal 050: Brake feedback switch signal 1 051-099: Reserved 151-199 reserved	0	-	★
F5-22	X22 function selection		0	-	★
F5-23	X23 function selection		0	-	★
F5-24	X24 function selection		0	-	★
F5-25	X25 higher-voltage input function selection	"NO" Input : 1 to 3 1 :Safety circuit 2 :Door lock circuit 1 3 :Door lock circuit 2	1	-	★
F5-26	X26 higher-voltage input function selection		2	-	★
F5-27	X27 higher-voltage input function selection		3	-	★
F5-28	I/O terminal status display 1	 <p>The keyboard tube order is 5, 4, 3, 2, 1 from left to right. Every passage's definition is as follows:</p>			
		Digit Sequence	Segment	Function	
		1	A	Reserved	- ●
			B	Up Levelling signal active	- ●
			C	Down Leveling signal active	- ●
			D	Door zone signal active	- ●
			E	RUN contactor output feedback	- ●
			F	Brake output feedback 1 signal active	- ●
			G	Brake output feedback 2 signal active	- ●
		2	DP	U.V.W shorting (FX) contactor feedback signal active	- ●
			A	Door lock jump out contactor feedback signal active	- ●
			B	Inspection signal active	- ●
			C	Inspection up signal active	- ●
			D	Inspection down signal active	- ●
			E	Fire emergency Landing signal active	- ●
			F	Reserved	- ●
			G	Lift lock signal active	- ●
		3	DP	Up limit signal active	- ●
			A	Down limit signal active	- ●
			B	Up terminal slowdown signal active	- ●
			C	Down terminal slowdown signal active	- ●
			D	Over load signal active	- ●
			E	Full load signal active	- ●
			F	Emergency stop (safety feedback) signal active	- ●

			G	Door 1 open limit signal active	-	●
			DP	Door 2 open limit signal active	-	●
4		A	A	Door 1 close limit signal active	-	●
			B	Door 2 close limit signal active	-	●
			C	Door 1 light curtain signal active	-	●
			D	Door 2 light curtain signal active	-	●
			E	Attendant mode signal active	-	●
			F	Non stop signal active	-	●
			G	Direction changing signal active	-	●
			DP	Independent running signal active	-	●
5		A	A	Door 2 selection signal active	-	●
			B	UPS input signal active	-	●
			C	Door open Button signal active	-	●
			D	Door close button signal active	-	●
			E	Door Lock circuit 1 signal active	-	●
			F	Door Lock circuit 2 signal active	-	●
			G	Half load signal active	-	●
			DP	Reserved	-	●
F5-29	I/O terminal status display 2	Digit Sequence	Segment	Function		
		1	A	Reserved	-	●
			B	Safety circuit signal active	-	●
			C	Door lock circuit 1 signal active	-	●
			D	Door lock circuit 2 signal active	-	●
			E	Reserved	-	●
			F	Reserved	-	●
			G	Reserved	-	●
		2	A	Y0 output active	-	●
			B	Running contactor output active	-	●
			C	Brake contactor output active	-	●
			D	Brake forced output active	-	●
			E	Illumination and fan output active	-	●
			F	U.V.W shorting (FX) contactor output active	-	●
			G	Door1 open output active	-	●
			DP	Door1 close output active	-	●
		3	A	Door2 open output active	-	●
			B	Door2 close output active	-	●
			C	Low 7 segment code a display output active	-	●
			D	Low 7 segment code b display output active	-	●
			E	Low 7 segment code c display output active	-	●
			F	Low 7 segment code d display output active	-	●
			G	Low 7 segment code e display output active	-	●

			DP	Low 7 segment code f display output active	-	●
			A	Low 7 segment code g display output active	-	●
			B	Up arrow display output active	-	●
F5-30	Floor I/O terminal status display 1	1	C	Down arrow display output active	-	●
			D	Minus display output active	-	●
			E	Returning to Fire emergency landing signal output active	-	●
			F	Buzzer output active	-	●
			G	Over load output active	-	●
F5-30	Floor I/O terminal status display 1	2	DP	Arrival gong output active	-	●
			A	Full load output active	-	●
			B	Inspection output active	-	●
			C	Illumination and fan Output 2 active	-	●
			D	Shorting door lock circuit contactor output active	-	●
			E	BCD, Gray code , 7 block code high bit output active	-	●
			F	Normal running output active	-	●
			G	Reserved	-	●
			DP	Reserved	-	●
		3	A	Door 1 open button input and output active	-	●
			B	Door 1 close button input and output active	-	●
			C	Door 1 open delaying button input and output active	-	●
		4	D	Car call of door 1 on the 1 st floor input and output active	-	●
			E	Car call of door 1 on the 2 nd floor input and output active	-	●
			F	Car call of door 1 on the 3rd floor input and output active	-	●
			G	Car call of door 1 on the 4th floor input and output availability	-	●
			DP	Car call of door 1 on the 5th floor input and output active	-	●
			A	Car call of door 1 on the 6th floor input and output active	-	●
			B	Car call of door 1 on the 7th floor input and output active	-	●
			C	Car call of door 1 on the 8th floor input and output active	-	●
		5	D	Car call of door 1 on the 9th floor input and output active	-	●
			E	Car call of door 1 on the 10th floor input and output active	-	●
			F	Reserved	-	●
			G	Reserved	-	●
			DP	Reserved	-	●
		6	A	Up call of door 1 on the 1st floor input and output active	-	●
			B	Reserved	-	●
			C	Up call of door 1 on the 2nd floor input and output active	-	●
			D	Down call of door 1 on the 2nd floor input and output active	-	●

			E	Up call of door 1 on the 3rd floor input and output active	-	●
			F	Down call of door 1 on the 3rd floor input and output active	-	●
			G	Up call of door 1 on the 4th floor input and output active	-	●
			DP	Down call of door 1 on the 4th floor input and output active	-	●
4		4	A	Up call of door 1 on the 5th floor input and output active	-	●
			B	Down call of door 1 on the 5th floor input and output active	-	●
			C	Up call of door 1 on the 6th floor input and output active	-	●
			D	Down call of door 1 on the 6th floor input and output active	-	●
			E	Up call of door 1 on the 7th floor input and output active	-	●
			F	Down call of door 1 on the 7th floor input and output active	-	●
			G	Up call of door 1 on the 8th floor input and output active	-	●
			DP	Down call of door 1 on the 8th floor input and output active	-	●
5		5	A	Up call of door 1 on the 9th floor input and output active	-	●
			B	Down call of door 1 on the 9th floor input and output active	-	●
			C	Reserved	-	●
			D	Down call of door 1 on the 10th floor input and output active	-	●
			E	Reserved	-	●
			F	Reserved	-	●
			G	Reserved	-	●
			DP	Reserved	-	●
F5-31	Floor I/O terminal status display 2	1	A	Door 2 open button input and output active	-	●
			B	Door 2 close button input and output active	-	●
			C	Door 2 open delaying button input and output active	-	●
			D	Car call of door 2 on the 1st floor input and output active	-	●
			E	Car call of door 2 on the 2nd floor input and output active	-	●
			F	Car call of door 2 on the 3rd floor input and output active	-	●
			G	Car call of door 2 on the 4th floor input and output active	-	●
			DP	Car call of door 2 on the 5th floor input and output active	-	●
		2	A	Car call of door 2 on the 6th floor input and output active	-	●
			B	Car call of door 2 on the 7th floor input and output active	-	●
			C	Car call of door 2 on the 8th floor input and output active	-	●
			D	Car call of door 2 on the 9th floor input and output active	-	●

			E	Car call of door 2 on the 10th floor input and output active	-	●
			F	Reserved	-	●
			G	Reserved	-	●
			DP	Reserved	-	●
3	A	3	A	Up call of door 2 on the 1st floor input and output active	-	●
			B	Reserved	-	●
			C	Up call of door 2 on the 2nd floor input and output active	-	●
			D	Down call of door 2 on the 2nd floor input and output active	-	●
			E	Up call of door 2 on the 3rd floor input and output active	-	●
			F	Down call of door 2 on the 3rd floor input and output active	-	●
			G	Up call of door 2 on the 4th floor input and output active	-	●
			DP	Down call of door 2 on the 4th floor input and output active	-	●
4	B	4	A	Up call of door 2 on the 5th floor input and output active	-	●
			B	Down call of door 2 on the 5th floor input and output active	-	●
			C	Up call of door 2 on the 6th floor input and output active	-	●
			D	Down call of door 2 on the 6th floor input and output active	-	●
			E	Up call of door 2 on the 7th floor input and output availability	-	●
			F	Down call of door 2 on the 7th floor input and output active	-	●
			G	Up call of door 2 on the 8th floor input and output active	-	●
			DP	Down call of door 2 on the 8th floor input and output active	-	●
5	C	5	A	Up call of door 2 on the 9th floor input and output active	-	●
			B	Down call of door 2 on the 9th floor input and output active	-	●
			C	Reserved	-	●
			D	Down call of door 2 on the 10th floor input and output availability	-	●
			E	Reserved	-	●
			F	Reserved	-	●
			G	Reserved	-	●
			DP	Reserved	-	●

F6 Elevator Basic Parameters

F6-00	Top most floor	F6-01～16	5	-	★
F6-01	Bottom most floor	1～F6-00	1	-	★
F6-02	Parking floor	F6-01～F6-00	1	-	★
F6-03	Fire emergency floor	F6-01～F6-00	1	-	★
F6-04	Elevator-locked floor	F6-01～F6-00	1	-	★

F6-05	Service floors	<p>0~65535</p> <p>If Bit is enabled by 1, the corresponding floor call will be allowed If Bit is disabled by 0, the corresponding floor call will be not allowed</p> <p>Bit0: 1st Floor call Bit1: 2nd Floor call Bit2: 3rd Floor call Bit3: 4th Floor call Bit4: 5th Floor call Bit5: 6th Floor call Bit6: 7th Floor call Bit7: 8th Floor call Bit8: 9th Floor call Bit9: 10th Floor call Bit10: 11th Floor call Bit11: 12th Floor call Bit12: 13th Floor call Bit13: 14th Floor call Bit14: 15th Floor call Bit15: 16th Floor call</p>	<p>65535</p> <p>b00 1 b01 1 b02 1 b03 1 b04 1 b05 1 b06 1 b07 1 b08 1 b09 1 b10 1 b11 1 b12 1 b13 1 b14 1 b15 1</p>	-	★
F6-06	Elevator function control 1	<p>0~65535</p> <p>Bit0: Reserved Bit1: Returning to base floor if position deviation too large Bit2: Reserved Bit3: Buzzer not tweet upon re-levelling Bit4: Reserved Bit5: Cancelling auto reset of door lock fault Err42 Bit6: Clear floor number and display direction in advance Bit7: Reserved Bit8: Hall call is not directional, for an application having one button in landing to attend UP and DOWN direction call Bit9: Not detecting Analog wire breaking Bit10: Door lock disconnected once when inspection turned to normal Bit11: Reserved Bit12: Reserved Bit13: Reserved Bit14: Reserved Bit15: Reserved</p>	<p>00000</p> <p>b00 0 b01 0 b02 0 b03 0 b04 0 b05 0 b06 0 b07 0 b08 0 b09 0 b10 0 b11 0 b12 0 b13 0 b14 0 b15 0</p>	-	★
F6-07	Elevator function control 2	<p>0~65535</p> <p>Bit0: Reserved Bit1: Reserved Bit2: Arrow blinking during Running, blinking interval is set in F6-08 Bit3: Elevator lock enable in the attendant state</p>	<p>00000</p> <p>b00 0 b01 0 b02 0 b03 0 b04 0</p>	-	★

		Bit4: Reserved Bit5: Reserved Bit6: Fault code not displayed on keypad of the MCB Bit7: Reserved Bit8: Reserved Bit9: Stop the machine with holding torque at brake feedback abnormal Bit10: Cancelling the function of Err30 detection at re-levelling speed Bit11: Reserved Bit12: Fault auto reset once in every one hour Bit13: Super short floor function to enable the shaft learning if the floor distance is less than 500mm Bit14: Up slow-down not reset floor display for super short floor Bit15: Reserved	b05 0 b06 0 b07 0 b08 0 b09 0 b10 0 b11 0 b12 0 b13 0 b14 0 b15 0		
F6-08	Arrow blinking interval	0~5.0	1	-	★
F6-09	Random test times	0~60000	0	-	★
F6-10	Test function selection	0~15 Bit0: Hall call function forbidden Bit1: Door open function Forbidden Bit2: Overload function forbidden Bit3: Limit function forbidden	0	-	★
F6-11	L1 function selection	For Door 1 Call Function	201	-	★
F6-12	L2 function selection	000: Not in use	202	-	★
F6-13	L3 function selection	201~203 : Door 1 switch the door	203	-	★
F6-14	L4 function selection	204 : Door 2 selection button	000	-	★
F6-15	L5 function selection	205~210 : Reserved	211	-	★
F6-16	L6 function selection	211~226 : Door 1 Car call	212	-	★
F6-17	L7 function selection	227~230 : Reserved	213	-	★
F6-18	L8 function selection	231~245 : Door 1 up hall call	214	-	★
F6-19	L9 function selection	246~251 : Reserved	215	-	★
F6-20	L10 function selection	252~266 (Door 1 down hall call)	000	-	★
F6-21	L11 function selection	267~299 (Reserved)	000	-	★
F6-22	L12 function selection	201: Door 1 door opening button	000	-	★
F6-23	L13 function selection	202: Door 1 door closing button	231	-	★
F6-24	L14 function selection	203: Door 1 door opening delaying button	232	-	★
F6-25	L15 function selection	204 Door 2 selection button input	233	-	★
F6-26	L16 function selection	205~210: (Reserved)	234	-	★
F6-27	L17 function selection	211: Door 1 floor 1 car call	252	-	★
F6-28	L18 function selection	212: Door 1 floor 2 car call	253	-	★
		213: Door 1 floor 3 car call			
		214: Door 1 floor 4 car call			
		215: Door 1 floor 5 car call			
		216: Door 1 floor 6 car call			
		217: Door 1 floor 7 car call			
		218: Door 1 floor 8 car call			
		219: Door 1 floor 9 car call			
		220: Door 1 floor 10 car call			
		221: Door 1 floor 11 car call			
		222: Door 1 floor 12 car call			

F6-29	L19 function selection	223: Door 1 floor 13 car call 224: Door 1 floor 14 car call 225: Door 1 floor 15 car call 226: Door 1 floor 16 car call 227~230 : Reserved 231: Door 1 floor 1 up call 232: Door 1 floor 2 up call 233: Door 1 floor 3 up call 234: Door 1 floor 4 up call 235: Door 1 floor 5 up call 236: Door 1 floor 6 up call 237: Door 1 floor 7 up call 238: Door 1 floor 8 up call 239: Door 1 floor 9 up call 240: Door 1 floor 10 up call 241: Door 1 floor 11 up call 242: Door 1 floor 12 up call 243: Door 1 floor 13 up call 244: Door 1 floor 14 up call 245: Door 1 floor 15 up call 246~251 : Reserved	254	-	★
F6-30	L20 function selection		255	-	★
F6-31	L21 function selection		000	-	★
F6-32	L22 function selection		000	-	★
F6-33	L23 function selection		000	-	★
F6-34	L24 function selection		000	-	★
F6-35	L25 function selection		000	-	★
F6-36	L26 function selection		000	-	★
F6-37	L27 function selection		000	-	★
F6-38	L28 function selection		000	-	★
F6-39	L29 function selection		000	-	★
F6-40	L30 function selection		000	-	★
F6-41	L31 function selection		000	-	★
F6-42	L32 function selection		000	-	★
F6-43	L33 function selection		000	-	★
F6-44	L34 function selection		000	-	★
F6-45	L35 function selection		000	-	★
F6-46	L36 function selection		000	-	★
F6-47	L37 function selection		000	-	★
F6-48	L38 function selection		000	-	★
F6-49	L39 function selection		000	-	★
F6-50	L40 function selection		000	-	★
F6-51	L41 function selection		000	-	★
F6-52	L42 function selection		000	-	★
F6-53	L43 function selection		000	-	★
F6-54	L44 function selection		000	-	★
F6-55	L45 function selection		000	-	★
F6-56	L46 function selection		000	-	★
F6-57	L47 function selection		000	-	★
F6-58	L48 function selection		000	-	★
F6-59	L49 function selection		000	-	★
F6-60	L50 function selection		000	-	★
F6-61	Levelling sensor delay	10~50	14	ms	★
F6-62	Time interval of random running	0~1000	3	s	☆
F6-63	Reserved			-	★

		0–65535 Bit0: Reserved Bit1: Soft limit function- When the up slow-down and down levelling signals are active and the up levelling signal is inactive, the system considers that the up limit is performed. It is the same for the down limit signal. Bit2: Reserved Bit3: Reserved Bit4: Opening only one door of opposite (Door 2) doors under manual control, applicable only when opposite door control mode is enabled Bit5: Clearing calls immediately at elevator lock signal is enabled Bit6: Reserved Bit7: Reserved Bit8: Reserved Bit9: Disabling reverse floor number clear Bit10: Reserved Bit11: Responding to car calls first, then hall calls Bit12: Reserved Bit13: Reserved Bit14: Reserved Bit15: Reserved	00000 b00 0 b01 0 b02 0 b03 0 b04 0 b05 0 b06 0 b07 0 b08 0 b09 0 b10 0 b11 0 b12 0 b13 0 b14 0 b15 0	-	★
F6-64	Program control selection 1	0–65535 Bit0: Reserved Bit1: Reserved Bit2: Inspection to stop due to slow-down Bit3: Reserved Bit4: Buzzer tweet during door open delay time set in Fb-13 Bit5: Reserved Bit6: Reserved Bit7: Reserved Bit8: Door open at elevator lock Bit9: Display available at elevator lock Bit10: Reserved Bit11: Blinking at arrival - The car display blinks when the elevator arrives at a floor. The blinking advance time is set in F6-74 Bit12: Reserved Bit13: Reserved Bit14: Reserved Bit15: Reserved	00000 b00 0 b01 0 b02 0 b03 0 b04 0 b05 0 b06 0 b07 0 b08 0 b09 0 b10 0 b11 0 b12 0 b13 0 b14 0 b15 0	-	★
F6-65	Program control selection 2	0–65535 Bit0: Reserved Bit1: Reserved Bit2: Inspection to stop due to slow-down Bit3: Reserved Bit4: Buzzer tweet during door open delay time set in Fb-13 Bit5: Reserved Bit6: Reserved Bit7: Reserved Bit8: Door open at elevator lock Bit9: Display available at elevator lock Bit10: Reserved Bit11: Blinking at arrival - The car display blinks when the elevator arrives at a floor. The blinking advance time is set in F6-74 Bit12: Reserved Bit13: Reserved Bit14: Reserved Bit15: Reserved	00000 b00 0 b01 0 b02 0 b03 0 b04 0 b05 0 b06 0 b07 0 b08 0 b09 0 b10 0 b11 0 b12 0 b13 0 b14 0 b15 0	-	★

		0–65535 Bit0: Reserved Bit1: Cancelling door open/close command at delay of 1s after door open/ close limit Bit2: Not judging door lock state at door close output Bit3: Door close command is output continuously during elevator running Bit4: Returning to base floor for verification at first-time power on Bit5: Reserved Bit6: Reserved Bit7: Reserved Bit8: Reserved Bit9: Reserved Bit10: Reserved Bit11: Reserved Bit12: Reserved Bit13: Reserved Bit14: Reserved Bit15: Reserved	00000 b00 0 b01 0 b02 0 b03 0 b04 0 b05 0 b06 0 b07 0 b08 0 b09 0 b10 0 b11 0 b12 0 b13 0 b14 0 b15 0	-	★
F6-66	Program control selection 3	0–65535 Bit0: Calls cancelled after entering attendant state for the first time Bit1: Not responding to hall calls – Hall call blinks inside the car call button, but doesn't respond Bit2: Attendant/Automatic state switchover to enable the setting of F5-00 (Attendant/Normal switchover time) is valid Bit3: Elevator door closes function after the attendant presses the door close button manually. Bit4: Automatic door close function same as the normal state. Bit5: Buzzer tweeting at 2.5s intervals in attendant state Bit6: Continuous buzzer tweeting in attendant state Bit7: Car call button blinking to prompt the hall call registered Bit8: Reserved Bit9: Reserved Bit10: Reserved Bit11: Reserved Bit12: Reserved Bit13: Reserved Bit14: Reserved Bit15: Reserved	00000 b00 0 b01 0 b02 0 b03 0 b04 0 b05 0 b06 0 b07 0 b08 0 b09 0 b10 0 b11 0 b12 0 b13 0 b14 0 b15 0	-	★
F6-67	Attendant function selection	0–65535 Bit0: Reserved Bit1: Cancelling door open/close command at delay of 1s after door open/ close limit Bit2: Not judging door lock state at door close output Bit3: Door close command is output continuously during elevator running Bit4: Returning to base floor for verification at first-time power on Bit5: Reserved Bit6: Reserved Bit7: Reserved Bit8: Reserved Bit9: Reserved Bit10: Reserved Bit11: Reserved Bit12: Reserved Bit13: Reserved Bit14: Reserved Bit15: Reserved	00000 b00 0 b01 0 b02 0 b03 0 b04 0 b05 0 b06 0 b07 0 b08 0 b09 0 b10 0 b11 0 b12 0 b13 0 b14 0 b15 0	-	★

		0–65535 Bit0: Reserved Bit1: Reserved Bit2: Reserved Bit3: Arrival gong output in inspection or fire emergency state Bit4: To enable Multiple car calls registered in fire emergency state Bit5: Retentive at power failure in fire emergency state - In the fire emergency state, the current system and car state will be memorized at power failure and be resumed after the system is powered on again Bit6: Closing door by holding down the door close button Bit7: Reserved Bit8: Reserved Bit9: Displaying hall calls in fire emergency state Bit10: Reserved Bit11: Exiting fire emergency only after arrives at fire emergency floor Bit12: Not clearing car calls at reverse door open in fire fighter running state Bit13: Reserved Bit14: Opening door by holding down the door open button Bit15: Automatic door open in fire emergency floor	00000 b00 0 b01 0 b02 0 b03 0 b04 0 b05 0 b06 0 b07 0 b08 0 b09 0 b10 0 b11 0 b12 0 b13 0 b14 0 b15 0	-	★
F6-69	Emergency evacuation function selection	0–65535 Bit0:0, Bit1:0 for Auto direction detection Bit0:1, Bit1:0 for Light load/Load weigh input based direction detection Bit0:0, Bit1:1 for Nearest floor direction running Bit2: Stopping at evacuation parking floor set in F6-73 Bit3: Compensation at start up – no load cell start up is still valid in the process of evacuation running Bit4: Reserved Bit5: Reserved Bit6: Reserved Bit7: Reserved Bit8: Emergency running time protection - If the elevator does not arrive at the required floor after 50s emergency evacuation running time, Err33 is reported. In this case, the function of switching over shorting stator braking mode to controller drive based on the time setting cannot be implemented Bit9: Reserved Bit10: Buzzer tweets at intervals in the emergency evacuation running state Bit11: Reserved	00000 b00 0 b01 0 b02 0 b03 0 b04 0 b05 0 b06 0 b07 0 b08 0 b09 0 b10 0 b11 0 b12 0 b13 0 b14 0 b15 0	-	★

		Bit12: Shorting stator braking mode switched over to controller drive				
		Bit13 : Mode of shorting stator braking mode switched over to controller drive	0	Time setting If the time of the shorting stator braking mode exceeds the time set in F6-75, the controller starts to drive the elevator.		
			1	Speed setting If the speed is still smaller than the value of F6-72 after 10s in the shorting stator braking mode, the controller starts to drive the elevator.		
		Bit14: Emergency evacuation exit mode	0	The system exits emergency evacuation when receiving the door open limit signal from the elevator that arrives at the target floor		
			1	The system exits emergency evacuation when receiving the door close limit signal from the elevator that arrives at the target floor		
		Bit15: Function selection of shorting stator braking mode to become the setting of related function effective				

F6-70	Reserved		-	-	★
F6-71	Reserved		-	-	★
F6-72	Emergency evacuation switching speed	0.010–0.630	0.010	m/s	★
F6-73	Evacuation parking floor	0 to F6-00	0	-	★
F6-74	Blinking advance time	0.0–15.0	1	s	☆
F6-75	Waiting time for switchover from shorting stator braking mode to controller drive	0.0–45.0	20.0	s	☆

F7 - Terminal Output Function Parameters

F7-00	Y0 function selection	F7-00 need be set as 32 in order to enable the lift automatically switch to power failure emergency running. Range : 00-05 00: Not in use 01: Run contactor output (SW) 02: Brake contactor output(BY) 03: Brake High Voltage start up output 04: Light and fan output 05: Synchronous motor U.V.W Shorting (FX) contactor output	00	-	★
F7-01	Y1 function selection		01	-	★
F7-02	Y2 function selection		02	-	★
F7-03	Y3 function selection		04	-	★
F7-04	Y4 function selection	Range : 06-99 00: Not in use 06: Door 1 open door output 07: Door 1 close door output 08: Door2 open door output	00	-	★
F7-05	Y5 function selection		00	-	★
F7-06	Y6 function selection		06	-	★

F7-07	Y7 function selection	09: Door2 close door output 10: Low 7 block code 'a' display output 11: Low 7 block code 'b' display output 12: Low 7 block code 'c' display output 13: Low 7 block code 'd' display output 14: Low 7 block code 'e' display output 15: Low 7 block code 'f' display output 16: Low 7 block code 'g' display output 17: Up arrow display output 18: Down arrow display output 19: Minus display output 20: Returning to Fire floor signal output 21: Buzzer output 22: Overload output 23: Arrival gong output 24: Full load output 25: Inspection output 26: Light and fan output 2 27: Shorting door lock circuit contactor output 28: BCD, Gray, 7 segment code high bit output 29: Controller normal running output 30: Electric lock output 31: Reserved 32: Emergency evacuation at power failure 33: Forced door close 1 34: Forced door close 2 35: Faulty state 36: Up signal 37: Medical sterilization output 38: Non-door zone stop output 39: Non-service state output 40: Reserved 41: High 7-segment 'a' display output 42: High 7-segment 'b' display output 43: High 7-segment 'c' display output 44: High 7-segment 'd' display output 45: High 7-segment 'e' display output 46: High 7-segment 'f' display output 47: High 7-segment 'g' display output 48-99: Reserved	07	-	★
F7-08	Y8 function selection		08	-	★
F7-09	Y9 function selection		09	-	★
F7-10	Y10 function selection		10	-	★
F7-11	Y11 function selection		11	-	★
F7-12	Y12 function selection		12	-	★
F7-13	Y13 function selection		13	-	★
F7-14	Y14 function selection		14	-	★
F7-15	Y15 function selection		15	-	★
F7-16	Y16 function selection		16	-	★
F7-17	Y17 function selection		17	-	★
F7-18	Y18 function selection		18	-	★
F7-19	Y19 function selection		19	-	★
F7-20	Y20 function selection		20	-	★
F7-21	Y21 function selection		21	-	★
F7-22	Y22 function selection		22	-	★
F7-23	Y23 function selection		00	-	★
F7-24	Y24 function selection		00	-	★
F7-25	Y25 function selection		00	-	★
F7-26	Y26 function selection		00	-	★
F7-27	Y27 function selection		00	-	★

F8 - Enhance Function Parameters

F8-00	Load cell auto-tuning setting	0~100	0 %	%	★
F8-01	Pre-torque selection	0~2 0: Pre-set torque is invalidation, weighing self-tuning is allowable 1: Torque bias is available with Analog load weigh 2: Pre-torque automatically	2	-	★
F8-02	Pre-torque offset	0.20~50.0	50.0	%	★
F8-03	Drive Gain	0.00~1.00	0.60	-	★
F8-04	Brake Gain	0.00~2.00	0.60	-	★
F8-05	Current Car Load	0~255	0	-	●
F8-06	Load cell no-load	0~255	0	-	★

F8-07	Load cell full-load setting	0~255	100	-	★
F8-08	Load cell input selection	0~2 0: Invalidation 1: MCB digital sampling 2: MCB Analog sampling	0	-	☆
F8-09	Emergency evacuation speed upon power failure	0.000~F3-11	0.050	m/s	★
F8-10	Emergency evacuation selection upon power failure	0~2 0: Motor isn't running 1: UPS power running 2: 48V batter power	0	-	★
F8-11	Brake apply delay	0.200~1.500	0.200	s	★
F8-12	Fire emergency floor 2	0 to F6-00	0	-	★
F8-13	Anti-nuisance function	Bit0: Disabled Bit1: Judged by light curtain Bit 2: Judged by light-load signal	0	-	☆

F9 - Time Parameters

F9-00	Time of returning to base floor for an idle elevator	0~240	10	Min	☆
F9-01	Fan/Light turn off time	1~240 0: Fan and lamp always ON	2	Min	☆
F9-02	Max. floor running interval	0~45 Invalid if smaller than 3s	45	s	★
F9-03	Accumulative working time	0~65535	0	h	●
F9-04	Reserved	-	-	-	-
F9-05	High byte of running times	0~9999 1 indicating actual running times 10000	0000	-	●
F9-06	Low byte of running times	0~9999	0000	-	●
F9-07	Reserved			-	-

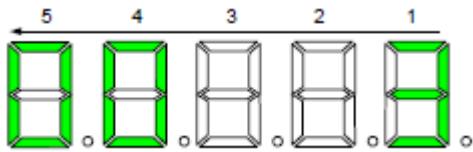
FA - Keyboard Setting Parameters

FA-00	Reserved	-		-	-
FA-01	Running display	1~65535	Bit Bit 0 Bit 1 Bit 2 Bit 3 Bit 4 Bit 5 Bit 6 Bit 7 Bit 8 Bit 9 Bit 10 Bit 11 Bit 12 Bit 13	Parameter Display Running speed Rated speed Bus voltage Output voltage Output current Output frequency Current floor Current Position Car load System state Pre-torque current (%) State of input terminal -1 State of input terminal -2 State of input terminal -3	65535 b00 1 b01 1 b02 1 b03 1 b04 1 b05 1 b06 1 b07 1 b08 1 b09 1 b10 1 b11 1 b12 1

			Bit 14	State of output terminal -1	b13 1 b14 1 b15 1		
			Bit 15	State of output terminal- 2			
FA-02	Stop display	1～65535	Bit	Parameter Display			
			Bit 0	Rated speed			
			Bit 1	Bus Voltage			
			Bit 2	Current Floor			
			Bit 3	Current Position			
			Bit 4	Car Load			
			Bit 5	Rated lift's decelerate distance			
			Bit 6	System state			
			Bit 7	State of input terminal 1			
			Bit 8	State of input terminal 2			
			Bit9	State of input terminal 3			
			Bit10	State of output terminal 1			
			Bit11	State of output terminal 2			
			Bit12	Reserved			
			Bit13	Reserved			
			Bit14	Reserved			
			Bit15	Reserved			
System state			Bit 0→ Light curtain 1 state Bit 1→ Light curtain 2 state Bit 2→ Elevator lock Bit 3→ Fire emergency	Car state: Bit 8 1: Door open Bit 9 2: Door open holding Bit 10 3: Door close Bit 11 4: Door close limit 5: Running			
			Elevator state: 0: Inspection Bit 4 1: Shaft auto-tuning Bit 5 3: Return to base floor at fire Bit 6 emergency Bit 7 4: Fire-fighter operation 6: Attendant operation 7: Automatic (normal)	Bit 12→Full load Bit 13→ Overload Bit 14→ Reserved Bit 15→ Reserved			
State of input terminal 1			Bit 0→Reversed Bit 1→Up Levelling signal Bit 2→Down Levelling Signal Bit 3→Door Zone Signal Bit 4→RUN (SW) contactor Feedback Bit 5 →Brake (BY) contactor Feedback Bit 6→Brake Switch Feedback Bit 7→Self-Lock Feedback	Bit 8→Door Lock short contactor Feedback Bit 9→Inspection Signal Bit 10→Inspection Up signal Bit 11→Inspection Down Signal Bit 12→Fire Emergency signal Bit 13→Reserved Bit 14→Elevator Lock Signal Bit 15→Up Limit Signal			
State of input terminal 2			Bit 0→Down Limit signal Bit 1→Up slow-down signal Bit 2→Down slow down signal Bit 3→Overload Signal Bit 4→Full load Signal Bit 5 →Emergency Stop signal	Bit 8→Door 1 close limit Bit 9→Door 2 close limit Bit 10→Door 1 light curtain Bit 11→Door 2 light curtain Bit 12→Attendant signal Bit 13→Direct travel (Non Stop) signal			

	Bit 6→Door 1 open limit Bit 7→Door 2 open limit	Bit 14→Direction Change signal Bit 15→Independent signal			
	Bit 0→Door 2 selection Bit 1→UPS input Bit 2→Door open button Bit 3→Door close button Bit 4→Safety circuit Bit 5 →Door lock circuit 1 Bit 6→Door lock circuit 2 Bit 7→Half load signal	Bit 8→Motor over heat signal Bit 9→Door 1 safety edge Bit 10→Door 2 Safety edge Bit 11→ Earthquake signal Bit 12→Back door forbidden Bit 13→Half load signal Bit 14→Single/Double door selection Bit 15→Fire emergency floor switchover			
State of input terminal 3					
State of output terminal 1	Bit 0→ Reserved Bit 1→ RUN (SW) contactor Bit 2→ Brake (BY) contactor Bit 3→ Higher voltage start-up of brake Bit 4→ Fan/Lamp output Bit 5 → Shorting stator (FX) contactor output Bit 6→ Door 1 open command Bit 7→ Door 2 open command	Bit 8→ Door 2 open command Bit 9→ Door 2 Close command Bit 10→ Low 7 segment 'a' display output Bit 11→ Low 7 segment 'b' display output Bit 12→ Low 7 segment 'c' display output Bit 13→ Low 7 segment 'd' display output Bit 14→ Low 7 segment 'e' display output Bit 15→ Low 7 segment 'f' display output			
State of output terminal 2	Bit 0→ Low 7 segment 'g' display output Bit 1→ Up arrow display output Bit 2→ Down arrow output Bit 3→ Minus sign display output Bit 4→ Returning to base floor at fire emergency output Bit 5 → Buzzer Output Bit 6→ Overload output Bit 7→ Arrival gong output	Bit 8→ Full load output Bit 9→ Inspection output Bit 10→ Fan/Lamp output 2 Bit 11→ Door Lock short circuit contactor output Bit 12→ BCD/Grey code/7 segment code high-bit output Bit 13→ Controller normal running output active Bit 14→ Lift lock output Bit 15→ Reserved			
FA-03	Current encoder angle	0.0～360.0	000.0	Degree (°)	●
FA-04	Reserved	-	-	-	-
FA-05	Control Board Software 3	0～65535	0	-	●
FA-06	Drive Board software	0～65535	0	-	●
FA-07	Heat sink temperature	0～100	0	°C	●
FA-08	Controller Model		1000	-	●
FA-09	Reserved		-	-	-
FA-10	Reserved		-	-	-
FA-11	Pre-torque Current	0.0 – 200.0	0	%	●
FA-12	Logic information	0-65535	0	-	●

It displays the elevator status parameters.
The LEDs are arranged as 5, 4, 3, 2, 1 from left to right. LED 1 shows the state of door 1. LEDs 2 and 3 have no display. LEDs 4 and 5 together show the elevator state. The following figure shows the elevator in inspection and door close state



LED 5		LED 4		LED 3	LED 2	LED 1	
Elevator State				No Display	No Display	Door 1 State	
00	Inspection state	8	Elevator lock	-	-	0	Waiting state
01	Shaft auto-tuning	09	Idle elevator parking			1	Door open state
02	Micro-leveling	10	Re-leveling at inspection speed			2	Door open limit
03	Returning to base floor at fire emergency	11	Emergency evacuation operation			3	Door close state
04	Firefighter operation	12	Motor auto-tuning			4	Door close limit
05	Fault state	13	Keypad control			-	-
06	Attendant operation	14	Base floor check			-	-
07	Automatic running	-	-			-	-

FA-13	Curve information	0~65535				0	-	●
-------	-------------------	---------	--	--	--	---	---	---

LED 5	LED 4	LED 3	LED 2		LED 1	
No Display	No Display	No Display	Curve Information			
-	-	-	00	Standby state	09	Deceleration start segment
			01	Zero-speed start segment	10	Linear deceleration segment
			02	Zero-speed holding segment	11	Deceleration end segment
			03	Reserved	12	Zero speed at stop
			04	Startup speed stage	13	Current stop phase
			05	Acceleration start segment	14	Reserved
			06	Linear acceleration segment	15	Stop data processing
			07	Acceleration end segment	16-20	Auto-tuning stage
			08	Stable-speed running segment	21	Emergency operation

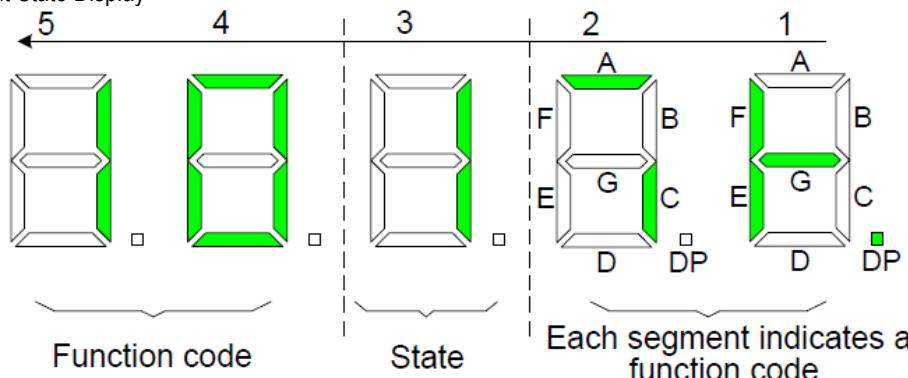
FA-14	Set Speed	0.00~4.00	0 m/s	-	●
FA-15	Feedback Speed	0.00~4.00	0 m/s	-	●

FA-16	Bus Voltage	0~999.9	0 V	-	●
FA-17	Present Position	0.00~300.0	0 m	-	●
FA-18	Output Current	0.0~999.9	0 A	-	●
FA-19	Output Frequency	0.00~99.9	0 Hz	-	●
FA-20	Torque Current	0.0~999.9	0 A	-	●
FA-21	Output voltage	0~999.9	0 V	-	●
FA-22	Output torque	0~200.0	0 %	-	●
FA-23	Output power	0.00~99.99	0 KW	-	●
FA-24	Communication interference	0~65535	-	-	●

LED 5		LED 4	LED 3		LED 2	LED 1
SPI Communication Quality		No Display	CAN2 Communication Quality		No Display	No Display
0	Good	-	0	Good	-	-
↓	↑		↓	↑		
9	Interrupted		9	Interrupted		

FA-25	Encoder interference	0~65535	-	-	●
FA-26	Input state 1	0~65535	0	-	●

Example Of Input State Display



As shown in the above indication, the LED's from the right to left are numbered 1, 2, 3, 4 & 5. For FA-26 to FA-37, LED's 5 & 4 show the function code number and LED 3 shows whether the function valid (1) or invalid (0); each segments of LED's 2 & 1 (total 16, from 0 to 15 segments) show the states of the 16 functions in this parameter in addition to LED's 5, 4 & 3 informations.

The above indication shows display of FA-26: LEDs 5, 4, and 3 show that function 10 (Inspection down) is 1 (Valid); LEDs 1 and 2 show that besides function 10, functions 4 (RUN contactor feedback), 5 (Brake contactor feedback), 6 (Brake travel switch feedback), 7 (Shorting PMSM stator contactor feedback), and 8 (Shorting door lock circuit contactor feedback) are valid.

FA-26	Input State 1	0	Reserved	8	Shorting door lock circuit contactor feedback	●
		1	Up levelling signal	9	Inspection signal	
		2	Down levelling signal	10	Inspection up	
		3	Door zone signal	11	Inspection down	
		4	RUN contactor feedback	12	Fire emergency signal	
		5	Brake contactor feedback	13	Reserved	
		6	Brake travel switch feedback	14	Elevator lock	
		7	Shorting PMSM stator contactor feedback	15	Up limit signal	
FA-27	Input state 2	0	Down limit signal	8	Door 1 close limit	●
		1	Up slow-down signal	9	Door 2 close limit	
		2	Down slow-down signal	10	Door machine 1 light curtain	

		3	Overload signal	11	Door machine 2 light curtain	
		4	Full-load signal	12	Attendant signal	
		5	Emergency stop signal	13	Direct travel ride signal	
		6	Door 1 open limit	14	Direction change signal	
		7	Door 2 open limit	15	Independent running	
FA-28	Input state 3	0	Door 2 selection	8	Motor overheat	
		1	UPS input	9	Door 1 safety edge	
		2	Door open button	10	Door 2 safety edge	
		3	Door close button	11	Earthquake signal	
		4	Safety circuit	12	Back door forbidden	
		5	Door lock circuit 1	13	Half-load signal	
		6	Door lock circuit 2	14	Single/Double door selection	
		7	Half-load signal	15	Fire emergency floor switchover	
FA-29	Input state 4	0	Virtual floor	8	Reserved	
		1	Firefighter switch	9	Reserved	
		2	Brake travel switch feedback 2	10	Reserved	
		3	Reserved	11	Reserved	
		4	Reserved	12	Reserved	
		5	Reserved	13	Reserved	
		6	Reserved	14	Reserved	
		7	Reserved	15	Reserved	
FA-30	Input state 5	0	Reserved	8	Reserved	
		1	Higher-voltage safety circuit	9	Reserved	
		2	Higher-voltage door lock circuit 1	10	Reserved	
		3	Higher-voltage door lock circuit 2	11	Reserved	
		4	Reserved	12	Reserved	
		5	Reserved	13	Reserved	
		6	Reserved	14	Reserved	
		7	Reserved	15	Reserved	
FA-31	Output state 1	0	Reserved	8	Door 2 open	
		1	RUN contactor	9	Door 2 close	
		2	Brake contactor	10	Low 7-segment 'a' display output	
		3	Higher-voltage start-up of brake	11	Low 7-segment 'b' display output	
		4	Fan/Lamp output	12	Low 7-segment 'c' display output	
		5	Shorting PMSM stator contactor output	13	Low 7-segment 'd' display output	
		6	Door 1 open	14	Low 7-segment 'e' display output	
		7	Door 1 close	15	Low 7-segment 'f' display output	
FA-32	Output state 2	0	Low 7-segment 'g' display output	8	Full-load output	
		1	Up arrow display output	9	Inspection output	
		2	Down arrow output	10	Fan/Lamp output 2	
		3	Minus sign display output	11	Shorting door lock circuit contactor output	
		4	Returning to base floor at fire emergency output	12	BCD/Gray code/7- segment code high-bit output	
		5	Buzzer output	13	Controller normal running output active	
		6	Overload output	14	Electric lock output	
		7	Arrival gong output	15	Reserved	

FA-33	Output state 3	0	Emergency evacuation at power failure	8	Reserved	●
		1	Forced door close 1	9	High 7-segment 'a' display output	
		2	Forced door close 2	10	High 7-segment 'b' display output	
		3	Faulty state	11	High 7-segment 'c' display output	
		4	Up signal	12	High 7-segment 'd' display output	
		5	Medical sterilization output	13	High 7-segment 'e' display output	
		6	Non-door zone stop output	14	High 7-segment 'f' display output	
		7	Non-service state output	15	High 7-segment 'g' display output	
FA-34	Floor I/O state 1	0	Door 1 Open command	8	Door 2 Open command	●
		1	Door 1 Close command	9	Door 2 Close command	
		2	Door 1 open delay	10	Door 2 open delay	
		3	Door 2 selection	11	Reserved	
		4	Reserved	12	Reserved	
		5	Reserved	13	Reserved	
		6	Reserved	14	Reserved	
		7	Reserved	15	Reserved	
FA-35	Floor I/O state 2 (Door 1 Car Call)	0	Floor 1 Car call	8	Floor 9 Car call	●
		1	Floor 2 Car call	9	Floor 10 Car call	
		2	Floor 3 Car call	10	Floor 11 Car call	
		3	Floor 4 Car call	11	Floor 12 Car call	
		4	Floor 5 Car call	12	Floor 13 Car call	
		5	Floor 6 Car call	13	Floor 14 Car call	
		6	Floor 7 Car call	14	Floor 15 Car call	
		7	Floor 8 Car call	15	Floor 16 Car call	
FA-36	Floor I/O state 3 (Door 1 Up Call)	0	Floor 1 Up call	8	Floor 9 Up call	●
		1	Floor 2 Up call	9	Floor 10 Up call	
		2	Floor 3 Up call	10	Floor 11 Up call	
		3	Floor 4 Up call	11	Floor 12 Up call	
		4	Floor 5 Up call	12	Floor 13 Up call	
		5	Floor 6 Up call	13	Floor 14 Up call	
		6	Floor 7 Up call	14	Floor 15 Up call	
		7	Floor 8 Up call	15	Reserved	
FA-37	Floor I/O state 4 (Door 1 Down Call)	0	Reserved	8	Floor 9 Down call	●
		1	Floor 2 Down call	9	Floor 10 Down call	
		2	Floor 3 Down call	10	Floor 11 Down call	
		3	Floor 4 Down call	11	Floor 12 Down call	
		4	Floor 5 Down call	12	Floor 13 Down call	
		5	Floor 6 Down call	13	Floor 14 Down call	
		6	Floor 7 Down call	14	Floor 15 Down call	
		7	Floor 8 Down call	15	Floor 16 Down call	
FA-38	Floor I/O state 5 (Door 2 Car Call)	0	Floor 1 Car call	8	Floor 9 Car call	●
		1	Floor 2 Car call	9	Floor 10 Car call	
		2	Floor 3 Car call	10	Floor 11 Car call	
		3	Floor 4 Car call	11	Floor 12 Car call	
		4	Floor 5 Car call	12	Floor 13 Car call	
		5	Floor 6 Car call	13	Floor 14 Car call	
		6	Floor 7 Car call	14	Floor 15 Car call	
		7	Floor 8 Car call	15	Floor 16 Car call	

FA-39	Floor I/O state 6 (Door 2 Up Call)	0	Floor 1 Up call	8	Floor 9 Up call	●
		1	Floor 2 Up call	9	Floor 10 Up call	
		2	Floor 3 Up call	10	Floor 11 Up call	
		3	Floor 4 Up call	11	Floor 12 Up call	
		4	Floor 5 Up call	12	Floor 13 Up call	
		5	Floor 6 Up call	13	Floor 14 Up call	
		6	Floor 7 Up call	14	Floor 15 Up call	
		7	Floor 8 Up call	15	Reserved	
FA-40	Floor I/O state 7 (Door 2 Down Call)	0	Reserved	8	Floor 9 Down call	●
		1	Floor 2 Down call	9	Floor 10 Down call	
		2	Floor 3 Down call	10	Floor 11 Down call	
		3	Floor 4 Down call	11	Floor 12 Down call	
		4	Floor 5 Down call	12	Floor 13 Down call	
		5	Floor 6 Down call	13	Floor 14 Down call	
		6	Floor 7 Down call	14	Floor 15 Down call	
		7	Floor 8 Down call	15	Floor 16 Down call	
FA-41	System State	0	Up direction	8	-	★
		1	Down direction	9	-	
		2	System in running state	10	-	
		3	System full-load	11	-	
		4	System overload	12	-	
		5	System half-load	13	-	
		6	System light-load	14	-	
		7	-	15	-	

FB Door Function Parameter

Fb-00	Number of door machines	1~2	1	-	★
Fb-01	Opposite door options	0~3 0: Simultaneous control for both Door 1 & 2 1 : Hall call independent, car call simultaneous 2 : Hall call independent, car call manual control 3 : Hall call independent, car call independent	0	-	●
Fb-02	Service floor of door machine 1	0~65535 Select according to bit; if this bit is 1, the function is enabled If the bit is 0, the function is disabled Bit0: Floor 1 of Door Machine 1 Bit1: Floor 2 of Door Machine 1 Bit2: Floor 3 of Door Machine 1 Bit3: Floor 4 of Door Machine 1 Bit4: Floor 5 of Door Machine 1 Bit5: Floor 6 of Door Machine 1 Bit6: Floor 7 of Door Machine 1 Bit7: Floor 8 of Door Machine 1 Bit8: Floor 9 of Door Machine 1 Bit9: Floor 10 of Door Machine 1 Bit10: Floor 11 of Door Machine 1 Bit11: Floor 12 of Door Machine 1 Bit12: Floor 13 of Door Machine 1 Bit13: Floor 14 of Door Machine 1 Bit14: Floor 15 of Door Machine 1 Bit15: Floor 16 of Door Machine 1	65535 b00 1 b01 1 b02 1 b03 1 b04 1 b05 1 b06 1 b07 1 b08 1 b09 1 b10 1 b11 1 b12 1 b13 1 b14 1 b15 1	-	★
Fb-03	Open Holding time of manual door	1~60	10	s	★

		0~65535 Select according to bit; if this bit is 1, the function is enabled If the bit is 0, the function is disabled Bit0: Floor 1 of Door Machine 2 Bit1: Floor 2 of Door Machine 2 Bit2: Floor 3 of Door Machine 2 Bit3: Floor 4 of Door Machine 2 Bit4: Floor 5 of Door Machine 2 Bit5: Floor 6 of Door Machine 2 Bit6: Floor 7 of Door Machine 2 Bit7: Floor 8 of Door Machine 2 Bit8: Floor 9 of Door Machine 2 Bit9: Floor 10 of Door Machine 2 Bit10: Floor 11 of Door Machine 2 Bit11: Floor 12 of Door Machine 2 Bit12: Floor 13 of Door Machine 2 Bit13: Floor 14 of Door Machine 2 Bit14: Floor 15 of Door Machine 2 Bit15: Floor 16 of Door Machine 2	65535 b00 1 b01 1 b02 1 b03 1 b04 1 b05 1 b06 1 b07 1 - b08 1 b09 1 b10 1 b11 1 b12 1 b13 1 b14 1 b15 1		
Fb-05	Delay at stop after re-levelling	0.00~2.00	0.00 s	s	
Fb-06	Door open protection time	5~99	10 s	s	☆
Fb-07	Program control option	0~65535 Bit 0 ~ Bit 4 Reserved Bit 5 Stopping PSM 300MS Current slope mode at stop for 300 ms Bit 6 ~ Bit 12 Reserved Bit 13 High/low voltage detection for 1.5s Bit 14 ~ Bit 15 Reserved	00000 b00 0 to b15 0	-	☆
Fb-08	Door close time protection	5~99	15 s	s	☆
Fb-09	Door open/close protection times	0~20	0	-	☆
Fb-10	Door State of standby elevator	0~2 0: close the door successfully 1: waiting with door open at base floor 2: waiting with door open at each floor	0	-	☆
Fb-11	Door open holding time for Hall call	1~1000	5 s	s	☆
Fb-12	Door open holding time for car call	1~1000	3 s	s	☆
Fb-13	Door open holding time upon open delay valid	10~1000	30 s	s	☆
Fb-14	Door open holding time at base floor	1~1000	10 s	s	☆

Fb-15	Arrival gong output delay	0~1000	0 ms	ms	☆
Fb-16	Door lock waiting time at manual Door	0~50	0 s	s	☆
Fb-17	Holding time for forced door close	5~180	120 s	s	☆

FC - Protection Function Parameter

FC-00	Program control 1 for protection function	0~65535 Bit0: Short-circuit to ground detection at power-on Bit1: Cancelling current detection at inspection start-up Bit2: Decelerating to stop at valid light curtain Bit3: Password ineffective if no operation within 30 minutes Bit4~Bit9: Reserved	00000 b00 0 to b09 0	-	★
FC-01	Program control 2 for protection function	0~65535 Bit 0: Over-load protection selection Bit 1: Cancelling protection at output phase loss Bit 2: Cancelling Over-modulation function Bit 3: Reserved Bit 4: Light curtain judgement at door close limit Bit 5: Cancelling SPI communication judgement Bit 6 to Bit 8: Reserved Bit 9: Cancelling Err55 alarm Bit 10 to Bit 13 : Reserved Bit 14: Cancelling Protection at input phase loss	00001 b00 1 b01 0 to b15 0	-	★
FC-02	Overload protection coefficient	0.50~10.00	1.00	-	★
FC-03	Overload pre-warning coefficient	50~100	80 %	%	★
FC-04	Designated location fault information	0~9999 High two digits indicate the floor number and low two digits indicate the fault code For example, if Err30 occurs at floor 1, "0130" is displayed	0	-	●
FC-05	Designated fault code (Display)	0~9999	0	-	●
FC-06	Designated fault sub-code	0~65535	0	-	●
FC-07	Logic information of designated fault	0~65535	0	-	●
FC-08	Curve information of designated fault	0~65535	0	-	●
FC-09	Set speed upon designated fault	0.000~1.750	0	m/s	●
FC-10	Feedback Speed upon Designated fault	0.000~1.750	0	m/s	●
FC-11	Bus voltage upon designated fault	0.0~999.9	0	V	●
FC-12	Current position upon designated fault	0.0~300.0	0	m	●

FC-13	Output current upon designated fault	0.0~999.9	0	A	●
FC-14	Output frequency upon designated fault	0.0~999.9	0	Hz	●
FC-15	Torque current upon designated fault	0.0~999.9	0	A	●
FC-16	1st Fault code	0~9999	0	-	●
FC-17	1 st Fault sub-code	0~65535	0	-	●
FC-18	2nd Fault code	0~9999	0	-	●
FC-19	2nd Fault sub-code	0~65535	0	-	●
FC-20	3rd Fault code	0~9999	0	-	●
FC-21	3rd Fault sub-code	0~65535	0	-	●
FC-22	4th Fault code	0~9999	0	-	●
FC-23	4th Fault sub-code	0~65535	0	-	●
FC-24	5th Fault code	0~9999	0	-	●
FC-25	5th Fault sub-code	0~65535	0	-	●
FC-26	6th Fault code	0~9999	0	-	●
FC-27	6th Fault sub-code	0~65535	0	-	●
FC-28	7th Fault code	0~9999	0	-	●
FC-29	7th Fault sub-code	0~65535	0	-	●
FC-30	8th Fault code	0~9999	0	-	●
FC-31	8th Fault sub-code	0~65535	0	-	●
FC-32	9th Fault code	0~9999	0	-	●
FC-33	9th Fault sub-code	0~65535	0	-	●
FC-34	10th Fault code	0~9999	0	-	●
FC-35	10th Fault sub-code	0~65535	0	-	●
FC-36	Latest fault code	0~9999	0	-	●
FC-37	Latest fault sub-code	0~65535	0	-	●
FC-38	Logic information of latest fault	0~65535	0	-	●
FC-39	Curve information of latest fault	0~65535	0	-	●
FC-40	Set speed upon latest fault	0.000~1.750	0	m/s	●
FC-41	Feedback speed upon latest fault	0.000~1.750	0	m/s	●
FC-42	Bus voltage upon latest fault	0.0~999.9	0	V	●
FC-43	Current position upon latest fault	0.0~300.0	0	m	●
FC-44	Output current upon latest fault	0.0~999.9	0	A	●
FC-45	Output frequency upon latest fault	0.00~99.99	0	Hz	●
FC-46	Torque current upon latest fault	0.0~999.9	0	A	●
Group Fd: Communication Parameters					
Fd-00	Local Address	0~127 0: Broadcast address	1	-	★

Fd-01	Communication response delay	0~20	10	ms	★
Fd-02	Communication timeout	0.0 ~60.0 0: Invalid	0.0 s	s	★
Fd-03	Number of elevators in parallel control mode	1~2	1	-	★
Fd-04	Elevator No.	1~2	1	-	★
Fd-05	Parallel control function selection	Bit 0: Dispersed waiting	1	-	★

FE - Elevator Display Function Setting

FE-00	Collective selective mode	0~2 0:Full Collective Selective 1:Down Collective 2:Up Collective	0	-	☆
FE-01	Floor 1 display	0000~1999 Note: the first two numbers represent tens digit code of the floor; the last two represent first rank code. The first rank codes are as Follows: 00: display "0" 01: display "1" 02: display "2" 03: display "3" 04: display "4" 05: display "5" 06: display "6" 07: display "7" 08: display "8" 09: display "9" 10: display "10" 11: display "b" 12: display "G" 13: display "H" 14: display "L" 15: display "n" 16: display "P" 17: Reserved 18: display " 19: no display 23: Display "C" 24: Display "d" 25: Display "E" 26: Display "F" 28: Display "J" 31: Display "o" 35: Display "U" Larger than 35: No Display (End)	1901	-	☆
FE-02	Floor 2 display		1902	-	☆
FE-03	Floor 3 display		1903	-	☆
FE-04	Floor 4 display		1904	-	☆
FE-05	Floor 5 display		1905	-	☆
FE-06	Floor 6 display		1906	-	☆
FE-07	Floor 7 display		1907	-	☆
FE-08	Floor 8 display		1908	-	☆
FE-09	Floor 9 display		1909	-	☆
FE-10	Floor 10 display		0100	-	☆
FE-11	Floor 11 display		0101	-	☆
FE-12	Hall call output selection	0~3 0:7 Segment code 1:BCD code 2:Grey Code 3:Binary code 4:One to one output	0	-	☆
FE-13	Elevator factory function setting 1	0~65535 Select according to bit; if this bit is 1, the function is enabled If the bit is 0, the function is disabled Bit0: Reserved Bit1: Reserved	00000 b00 0 b01 0 b02 0 b03 0	-	☆

		Bit2: Re-levelling Function Bit3: Door Pre-open Function Bit4: Reserved Bit5: Forced Door close Bit6: Door open valid at non-door zone in the inspection Bit7: Door open and close once after Inspection turned to normal Bi8: Reserved Bit9: Independent running Bit10: Reserved Bit11: Door re-open for same floor inside call Bit12 to Bit 15: Reserved	b04 0 b05 0 b06 0 b07 0 b08 0 b09 0 b10 0 b11 0 b12 0 b13 0 b14 0 b15 0		
FE-14	Elevator factory function setting 2	0–65535 Bit0: Reserved Bit1: Door open holding at open limit Bit2: Door close command not output upon door close limit Bit3: Manual door Selection Bit4: Auto reset for RUN and brake contactor stuck error Bit5: Slow-down switch stuck detection Bit6 to Bit9: Reserved Bit7: Reserved Bit8: Reserved Bit9: Reserved Bit10: NO/NC output selection of shorting PMSM stator contactor Bit11: Reserved Bit12: Fan/Lamp output Bit13 to Bit 15: Reserved	00000 b00 0 b01 0 b02 0 b03 0 b04 0 b05 0 b06 0 b07 0 b08 0 b09 0 b10 0 b11 0 b12 0 b13 0 b14 0 b15 0	-	☆
FE-15	Floor 12 Display	Same as FE-01 to FE-11	0102	-	☆
FE-16	Floor 13 Display		0103	-	☆
FE-17	Floor 14 Display		0104	-	☆
FE-18	Floor 15 Display		0105	-	☆
FE-19	Floor 16 display		0106	-	☆

Fr Levelling Adjustment Parameters

Fr-00	Levelling adjustment function	0: Disabled 1: Enabled	0	mm	★
Fr-01	Levelling Adjustment record 1	00 00 ~ 60 60	30 30	mm	★
Fr-02	Levelling Adjustment record 1	00 00 ~ 60 60	30 30	mm	★
Fr-03	Levelling Adjustment record 1	00 00 ~ 60 60	30 30	mm	★
Fr-04	Levelling Adjustment record 1	00 00 ~ 60 60	30 30	mm	★
Fr-05	Levelling Adjustment record 1	00 00 ~ 60 60	30 30	mm	★
Fr-06	Levelling Adjustment record 1	00 00 ~ 60 60	30 30	mm	★
Fr-07	Levelling Adjustment record 1	00 00 ~ 60 60	30 30	mm	★
Fr-08	Levelling Adjustment record 1	00 00 ~ 60 60	30 30	mm	★

Fr-09 to Fr-20	Reserved	Reserved	-	-	-
FP - User Parameter					
FP-00	User Password	0~65535 0: no password	00000	-	☆
FP-01	Parameter update	0: none 1: restore to factory default value 2: Clear memory information	0	-	★
FP-02	User defined parameter display	0: Invalid 1: Valid	0	-	★
A1 : Special Function Parameter					
A1-00	Program control	0~65535 Bit0: Manual door function selection Bit1: Semi-auto door function –mode1 Bit2: Semi-auto door function –mode2 Bit3: Disable DOL/DCL function Bit4: Indian Fireman operation selection Bit5: Buzzer intermediate for manual door open Bit6: to Bit15: Reserved	00016 b00 0 b01 0 b02 0 b03 0 b04 1 b05 0 to b15 0	-	★
A1-01	On time of R/Cam while confirming the landing door safety	0~60	8	s	★
A1-02	Off time of R/Cam while confirming the landing door safety	0~60	2	s	★
A1-03	Time delay to apply R/cam	0~65535	500	ms	★
A1-04	Run time limit for UPS rescue/Re-levelling	0~65535	00000	ms	★
A1-05	UPS mode hold timer at Door open Limit	0~65535	00000	ms	★
A1-04 ~ A1-30	Reserved	0~65535	00000	-	★

8. Fault Information and Troubleshooting

8.1. Description of Fault Information

The NICE1000+ has almost 60 errors of alarm information and protective functions. It monitors various input signals, running conditions and feedback signals. If a fault occurs, the system implements the relevant protective function and displays the fault code. The controller is a complicated electronic control system and the displayed fault information is graded into five levels according to the severity. The faults of different levels are handled according to the following table.

8.2. Fault Levels

FAULT SORT	RELEVANT DISPOSAL	REMARK
Level 1	1. Display the fault code 2. Output the fault relay action command	1A. The elevator running is not affected on any condition
Level 2	1. Display fault code 2. Output the fault relay action command 3. Continue normal running of the elevator	2A. The parallel / group control is function is disabled
		2B. The door pre-open/re-levelling function is disabled.
Level 3	1. Display the fault code 2. Output the fault relay action command 3. Stop output and apply the brake immediately after stop	3A. In low-speed running, the elevator stops at special deceleration rate, and cannot restart.
		3B. In low-speed running, the elevator does not stop. In normal-speed running, the elevator stops, and then can start running at low speed after a delay of 3s.
Level 4	1. Display the fault code 2. Output the fault relay action command 3. In distance control, the elevator decelerates to stop and cannot run again	4A. In low-speed running, the elevator stops under special deceleration rate, and cannot restart.
		4B. In low-speed running, the elevator does not stop. In normal-speed running, the elevator stops, and then can start running at low speed after a delay of 3s.
		4C. In low-speed running, the elevator does not stop. In normal-speed running, the elevator stops, and then can start running at low speed after a delay of 3s.
Level 5	1. Display the fault code 2. Output the fault relay action command 3. The elevator stops immediately.	5A. In low-speed running, the elevator stops immediately and cannot restart.
		5B. In low-speed running, the elevator does not stop. In normal-speed running, the elevator stops, and then can start running at low speed after a delay of 3s.

- A, B, and C are fault sub-category
- Low-speed running involves inspection, emergency evacuation, shaft auto-tuning, re-levelling, motor auto-tuning, base floor detection, and running in operation panel control
- Normal-speed running involves automatic running, returning to base floor in fire emergency state, fire fighter operation, attendant operation, elevator lock, and elevator parking

8.3. Fault Information and Troubleshooting

Error on LED Display	Error on On-Board Display	Fault	Probable Causes	Remedy	Fault Sort
Err01	E01	Invert unit protection	1. The main circuit output is grounded or short circuited. 2. The connecting cable of the motor is too long. 3. The working temperature is too high. 4. The internal connections become loose.	1. Eliminate external faults. 2. Install a reactor or an output filter. 3. Check the air channel and the cooling fan. 4. Contact the agent or Monarch.	5A
Err02	E02	Over-current during Acceleration	1. The main circuit output is grounded or short circuited. 2. Motor auto tuning is performed improperly. 3. The load is too heavy. 4. The encoder signal is incorrect. 5. The UPS running feedback signal is abnormal.	1. Check whether the RUN contactor at the controller output side is normal. 2. Check whether the power cable jacket is damaged, whether the power cable is possibly short circuited to ground and whether the cable is connected reliably. 3. Check the insulation of motor power terminals, and check whether the motor winding is short-circuited or grounded. 4. Check whether the shorting PMSM stator contactor causes controller output short circuit.	5A
Err03	E03	Over-current during deceleration	1. The main circuit output is grounded or short circuited. 2. Motor auto tuning is performed improperly. 3. The load is too heavy. 4. The deceleration rate is too short. 5. The encoder is seriously interfered with external noise.	5. Check whether motor parameters comply with the nameplate. 6. Perform motor auto-tuning again. 7. Check whether the brake keeps released before the fault occurs and whether the brake is stuck mechanically. 8. Check whether the balance coefficient is correct. 9. Check whether the encoder wirings are correct. For asynchronous motor, perform SFVC and compare the current to judge whether the encoder works properly.	5A
Err04	E04	Over-current during constant speed	1. The main circuit output is grounded or short circuited. 2. Motor auto tuning is performed properly. 3. The load is too heavy. 4. The encoder is seriously interfered with external noise.	10. Check whether the encoder lines per revolution is set correctly, whether the encoder signal is interfered with, whether the encoder cable runs through the duct independently, whether the cable is too long and whether the shielding layer is grounded at one end. 11. Check whether the encoder is installed reliably, whether the rotating shaft is connected to the motor shaft reliably and whether the encoder is stable during normal-speed running. 12. Check whether UPS feedback is valid in the non-UPS running state E02).	5A

				13. Check whether the acceleration/deceleration rate is too high.	
Err05	E05	Over voltage during acceleration	1. The input voltage is too high. 2. The regeneration power of the motor is too high. 3. The braking resistance is too large, or the braking unit fails. 4. The acceleration rate is too short.	1. Adjust the input voltage. Observe whether the bus voltage is normal and whether it rises too quickly during running. 2. Check for the balance coefficient. 3. Select a proper braking resistor and check whether the resistance is too large based on the recommended braking resistance table	5A
Err06	E06	Over-voltage during deceleration	1. The input voltage is too high. 2. The braking resistance is too large, or the braking unit fails. 3. The deceleration rate is too short.	4. Check whether the cable connecting the braking resistor is damaged, whether the copper wire touches the ground and whether the connection is reliable.	5A
Err07	E07	Over-voltage at constant speed	1. The input voltage is too high. 2. The braking resistance is too large, or the braking unit fails.		5A
Err08	E08	Controller power fault	1. Input voltage is too high 2. Drive control panel is abnormal	1. Adjust input voltage 2. Please contact with agent or factory	3A
Err09	E09	Under - Voltage fault	1. Instantaneous power failure occurs on the input power supply. 2. The input voltage is too low. 3. The drive control board fails.	1. Eliminate external power supply faults and check whether the power fails during running. 2. Check whether the wiring of all power input cables is reliable. 3. Contact the agent or Monarch.	5A
Err 10	E10	System overload	1. The brake circuit is abnormal. 2. The load is too heavy. 3. The encoder feedback signal is abnormal. 4. The motor parameters are incorrect. 5. A fault occurs on the motor power cables.	1. Check the brake circuit and power input. 2. Reduce the load. 3. Check whether the encoder feedback signal and setting are correct. Check whether initial angle of the encoder for the PMSM is correct. 4. Check the motor parameter setting and perform motor auto tuning. 5. Check the power cables of the motor (refer to the solution of E02)	4A
Err 11	E11	Motor overload	1. FC-02 is set improperly. 2. The brake circuit is abnormal. 3. The load is too heavy.	1. Adjust the parameter (FC-02 can be set to the default value). 2. Refer to E10.	3A
Err 12	E12	Input side phase failure	1. The power input is not symmetric. 2. The drive control board fails.	1. Check whether the three phases of power supply are balanced and whether the power voltage is normal. If not, adjust the power input. 2. Contact the agent or Monarch	4A
Err 13	E13	Output side Phase failure	1. The output wiring of the main circuit is loose. 2. The motor is damaged.	1. Check the wiring. 2. Check whether the contactor at the output side is normal. 3. Eliminate the motor fault	4A
Err 14	E14	Module Overheated	1. The ambient temperature is too high. 2. The fan is damaged. 3. The air channel is blocked.	1. Lower the ambient temperature. 2. Clear the air channel. 3. Replace the damaged fan. 4. Check whether the installation clearance of the controller satisfies	5A

Err15	E15	Output abnormal	1. Braking short-circuit occurs on the output side 2. The U, V, W output is abnormal.	1. Check wiring of the braking resistor and braking unit is correct, without short-circuit 2. Check whether the main contactor works properly 3. Contact the agent or Monarch	5A
Err 16	E16	Encoder Fault	1. The start-up position is incorrect. 2. The torque deviation is too large. 3. The speed deviation is too large.	1. Check the encoder circuit. 2. Turn off the output MCCB. 3. The current loop parameters are too small. 4. The zero-point position is incorrect. Perform motor auto tuning again. 5. Reduce the load	5A
Err 17	E17	Encoder signal check abnormal	The deviation of real-time angle and reference angle of the 1387 encoder is too large.	1. Check whether the encoder is normal. 2. Check whether the encoder wiring is reliable and normal. 3. Check whether the PG card wiring is proper. 4. Check whether the main unit and control cabinet are grounded well	5A
Err 18	E18	Current detection fault	Diver control Board is failed	Contact with agent or factory	5A
Err 19	E19	Motor tuning fault	1. The motor cannot rotate properly. 2. The motor auto tuning times out. 3. The encoder for the PMSM fails.	1. Enter the motor parameters correctly. 2. Check the motor wiring and whether phase loss occurs on the contactor at the output side. 3. Check the feedback encoder wiring and ensure that PPR of the encoder is set properly. 4. Check whether the brake keeps released during no-load auto-tuning. 5. Check whether the inspection button is released before the PMSM with-load auto-tuning is finished.	5A
Err 20	E20	Speed Feedback incorrect	1: AB signals are lost during auto-tuning 3: The phase sequence of the motor is incorrect. 4: Z signal cannot be detected during auto-tuning. 5: The CD signal cables of the SIN/COS encoder break. 7: The UVW cables of the UVW encoder break. 8: The angle deviation is too large. 9: Over-speed occurs or the speed deviation is too large. 10/11: AB signals or CD signals of the SIN/COS encoder are interfered with. 12: The detected speed is 0 at torque limit.	3: Exchange any two phases of the motor UVW cables. 1, 4, 5, 7, 8, 10, 11, 13, 14, 19: Check that all signal cable wiring of the encoder is correct and secure. 9: Check that the setting of F1-00, F1-12, and F1-25 for the synchronous motor is correct. 12: Check that there is no mechanical stuck and that the brake has been released during running. 55: Check that the grounding is reliable and eliminate interference problems.	5A

			13: AB signals are lost during running. 14: Z signal is lost during running. 19: The AB Analog signal cables break during low speed running. 55: CD signal error or serious Z signal interference occurs during auto-tuning.		
Err 21	E21	Synchronous encoder wiring fault	Error occurs to the wiring of synchronous encoder	Check the encoder wiring	5
Err 22	Err22	Levelling signal abnormal	101: The levelling signal is active during floor switchover. 102: The falling edge of the levelling signal is not detected during elevator start up and floor switchover. 103: The levelling position deviation is too large in elevator auto-running state.	101, 102: Check whether the levelling and door zone sensors work properly. Check the installation verticality and depth of the levelling plates. Check the levelling signal input points of the MCB. 103: Check whether the steel rope slips.	1A
Err 23	E23	Short circuit fault to ground	The output is short circuited to ground.	Check the power cable or contact Monarch.	5A
Err 25	Err25	Storage data abnormal	101, 102: The storage data of the MCB is abnormal.	101, 102: Contact the agent or Monarch.	4A
Err26	Err26	Earthquake signal	101: The earthquake signal is active and the duration exceeds 2s.	101: Check that the earthquake signal is consistent with the parameter setting (NC, NO) of the MCB.	3B
Err 29	Err29	Shorting PMSM stator feedback abnormal	101: The shorting PMSM stator feedback is abnormal.	101: Check that the state (NO, NC) of the feedback contact on the contactor is correct. Check that the contactor and corresponding feedback contact act correctly. Check the coil circuit of the shorting PMSM stator contactor.	5A
Err 30	Err30	Elevator position abnormal	101, 102: In the normal-speed running or re-levelling running mode, the running time is larger than the value of F9-02, but the levelling signal has no change.	101, 102: Check whether the levelling signal cables are connected reliably and whether the signal copper wires may touch the ground or be short circuited with other signal cables. Check whether the distance between two floors is too large, causing too long re-levelling running time. Check whether signal loss exists in the encoder circuits.	4A
Err31	E31	DPRAM abnormal	DPRAM reading and writing are abnormal.	Contact the agent or Monarch to replace the control board.	3A

Err32	E32	CPU Abnormal	The CPU is abnormal.	1. Check jumpers J9 and J10 and check whether only the right two pins of J9 are shorted. 2. Contact the agent or Monarch to replace the control board	5A
Err33	Err33	Elevator speed abnormal	101: The detected running speed during normal-speed running exceeds the limit. 102: The speed exceeds the limit during inspection or shaft auto-tuning. 103: The speed exceeds the limit in shorting stator braking mode. 104: The speed exceeds the limit during emergency running. 105: The emergency running time protection function is enabled (set in Bit8 of F6-69), and the running time exceeds 50s, causing the timeout fault.	101: Check whether the encoder is used properly. Check the setting of motor nameplate parameters. Perform motor auto-tuning again. 102: Attempt to decrease the inspection speed or perform motor auto-tuning again. 103: Check whether the shorting PMSM stator function is enabled. 104, 105: Check whether the emergency power capacity meets the requirements. Check whether the emergency running speed is set properly.	5A
Err34	Err34	Logic fault	Logic of the MCB is abnormal.	Contact the agent or Monarch.	5A
Err 35	Err35	Shaft auto-tuning data abnormal	101: When shaft auto-tuning is started, the elevator is not at the bottom floor or the down slow-down is invalid, 102: The system is not in the inspection state when shaft auto-tuning is performed. 103: It is judged upon power-on that shaft auto-tuning is not performed. 104: In distance control mode, it is judged at running start-up that shaft auto-tuning is not performed. 106, 107, 109, 114: The plate pulse length sensed at up/down levelling is abnormal. 108, 110: No levelling signal is received within 45s continuous running. 111, 115: The stored floor height is smaller than 50 cm. 112: The floor when auto-tuning is completed is not the top floor. 113: The pulse check is abnormal.	101: Check that the down slow-down switch is valid, and that F4-01 (Current floor) is set to 1. 102: Check that the inspection switch is in inspection state. 103, 104: Perform shat auto-tuning. 106, 107, 109, 114: Check that NO/NC setting of the levelling sensor is set correctly. Check whether the levelling plates are inserted properly and whether there is strong power interference if the levelling sensor signal blinks. Check whether the levelling plate is too long for the asynchronous motor. 108, 110: Check whether the running times out: No levelling signal is received when the running time exceeds F9-02. 111, 115: Enable the super short floor function if the floor distance is less than 50 cm. If the floor distance is normal, check installation of the levelling plate for this floor and check the sensor. 112: Check whether the setting of F6-00 (Top floor of the elevator) is smaller than the actual condition. 113: Check whether the signal of the levelling sensor is normal. Perform shaft auto-tuning again.	4C
Err 36	Err36	RUN contactor feedback abnormal	101: The feedback of the RUN contactor is active, but the contactor has no output. 102: The controller outputs the RUN signal but receives no RUN feedback.	101, 102, 104 : Check whether the feedback contact of the contactor acts properly. Check the signal feature (NO, NC) of	5A

			103: The start-up current of the asynchronous motor is too small. 104: When both feedback signals of the RUN contactor are enabled, their states are inconsistent.	the feedback contact. 103: Check whether the output cables UVW of the controller are connected properly. Check whether the control circuit of the RUN contactor coil is normal.	
Err 37	Err37	Brake contactor feedback abnormal	101: The output of the brake contactor is inconsistent with the feedback. 102: When both feedback signals of the brake contactor are enabled, their states are inconsistent. 103: The output of the brake contactor is inconsistent with the feedback 2. 104: When both feedback 2 signals of the brake contactor are enabled, their states are inconsistent.	101, 104: Check whether the brake coil and feedback contact are correct. Check the signal feature (NO, NC) of the feedback contact. Check whether the control circuit of the brake contactor coil is normal.	5A
Err 38	Err38	Encoder signal abnormal	101: Pulse signal change in F4-03 does not change within the time threshold in of F1-13. 102: The running direction and pulse direction are inconsistent.	101, 102 : Check whether the encoder is used correctly. Exchange phases A and B of the encoder. Check whether the system and signal cables are grounded reliably. Check whether cabling between the encoder and the PG card is correct.	5A
Err 39	Err39	Motor overheat	101: The motor overheat relay input remains valid for a certain time.	101: Check whether the thermal protection relay is normal. Check whether the motor is used properly and whether it is damaged. Improve cooling conditions of the motor.	3A
Err 40	Err40	Elevator running reached	The set elevator running time is reached.	Check the related parameter, or contact the agent or Monarch.	4B
Err 41	Err41	Safety circuit disconnected	101: The safety circuit signal becomes OFF.	101: Check the safety circuit switches and their states. Check whether the external power supply is normal. Check whether the safety circuit contactor acts properly. Confirm the signal feature (NO, NC) of the feedback contact of the safety circuit contactor.	5A

Err 42	Err42	Door lock disconnected during running	101: The door lock circuit feedback is invalid during the elevator running.	101: Check whether the hall door lock and the car door lock are in good contact. Check whether the door lock contactor acts properly. Check the signal feature (NO, NC) of the feedback contact on the door lock contactor. Check whether the external power supply is normal.	5A
Err 43	Err43	Up limit signal abnormal	101: The up limit switch acts when the elevator is running in the up direction.	101: Check the signal feature (NO, NC) of the up limit switch. Check whether the up limit switch is in good contact. Check whether the limit switch is installed at a relatively low position and acts even when the elevator arrives at the terminal floor normally.	4C
Err 44	Err44	Down limit signal abnormal	101: The down limit switch acts when the elevator is running in the down direction.	101: Check the signal feature (NO, NC) of the down limit switch. Check whether the down limit switch is in good contact. Check whether the limit switch is installed at a relatively high position and thus acts even when the elevator arrives at the terminal floor normally.	4C
Err 45	Err45	Slow-down switch position abnormal	101: The down slow-down distance is insufficient during shaft auto-tuning. 102: The up slow-down distance is insufficient during shaft auto-tuning. 103: The slow-down position is abnormal during normal running. 104, 105: The elevator speed exceeds the maximum speed when slow-down is enabled.	101 to 103: Check whether the up slow-down and the down slow-down are in good contact. Check the signal feature (NO, NC) of the up slow-down and the down slow-down. 104, 105: Ensure that the obtained slow-down distance satisfies the slow-down requirement at the elevator speed.	4B
Err 46	Err46	Re-levelling abnormal	101: The levelling signal is inactive during re-levelling. 102: The re-levelling running speed exceeds 0.1 m/s. 103: At start-up of normal-speed running, the re-levelling state is valid and there is shorting door lock circuit feedback. 104: During re-levelling, no shorting door lock circuit feedback or door lock signal is received 2s after shorting door lock circuit output.	101: Check whether the levelling signal is normal. 102: Check whether the encoder is used properly. 103, 104: Check whether the signal of the levelling sensor is normal. Check the signal feature (NO, NC) of the feedback contact on the shorting door lock circuit contactor, and check the relay and wiring of the SCB-A board.	2B
Err 47	Err47	Shorting door lock circuit contactor	101: During re-levelling or pre-open running, the shorting door lock circuit	101, 102 : Check the signal feature (NO, NC) of the feedback contact on	2B

		abnormal	<p>contactor outputs for continuous 2s, but the feedback is invalid and the door lock is disconnected.</p> <p>102: During re-levelling or pre-open running, the shorting door lock circuit contactor has no output, but the feedback is valid for continuous 2s.</p> <p>103: During re-levelling or pre-open running, the output time of the shorting door lock circuit contactor is larger than 15s.</p>	<p>the shorting door lock circuit contactor. Check whether the shorting door lock circuit contactor acts properly.</p> <p>103: Check whether the levelling and re-levelling signals are normal. Check whether the re-levelling speed is set too low.</p>	
Err 48	Err48	Door open fault	101: The consecutive times that the door does not open to the limit reaches the setting in Fb-13.	<p>101:</p> <p>Check whether the door machine system works properly.</p> <p>Check whether the CTB is normal.</p> <p>Check whether the door open limit signal is normal.</p>	5A
Err 49	Err49	Door close fault	101: The consecutive times that the door does not open to the limit reaches the setting in Fb-13	<p>101:</p> <p>Check whether the door machine system works properly.</p> <p>Check whether the CTB is normal.</p> <p>Check whether the door lock acts properly.</p>	5A
Err 50	Err50	Consecutive loss of levelling signal	Levelling signal stuck or loss occurs for three consecutive times (Err22 is reported for three consecutive times).	<p>101:</p> <p>Check whether the levelling and door zone sensors work properly.</p> <p>Check the installation verticality and depth of the levelling plates.</p> <p>Check the levelling signal input points of the MCB. Check whether the steel rope slips.</p>	5A
Err 53	Err53	Door lock fault	<p>101: The door lock feedback signal remains active for more than 3s during door open.</p> <p>102: The multiple door lock feedback signal states are inconsistent for more than 2s.</p>	<p>101:</p> <p>Check whether the door lock circuit is normal.</p> <p>Check whether the feedback contact of the door lock contactor acts properly.</p> <p>Check whether the system receives the door open limit signal when the door lock signal is valid.</p> <p>102:</p> <p>Check whether when the hall door lock signal and the car door lock signal are detected separately, the detected states of the hall door locks and car door lock are inconsistent.</p>	5A
Err54	Err54	Overcurrent at inspection start-up	The current at start-up for inspection exceeds 110% of the rated current.	<p>101:</p> <p>Reduce the load</p> <p>Change Bit1 of FC-00 to 1 to cancel the start-up current detection function.</p>	5A

Err55	Err55	Stop at another landing floor	101: During automatic running of the elevator, the door open limit is not achieved at the present floor.	101: Check the door open limit signal at the present floor.	1A
Err57	Err57	Serial peripheral interface (SPI) communication abnormal	101, 102: The SPI communication is abnormal. No correct data is received with 2s of DSP communication. 103: The MCB does not match the AC drive.	101, 102: Check the wiring between the control board and the drive board. 103: Contact the agent or Monarch.	5A
Err58	Err58	Shaft position switches abnormal	101: The up slow-down and down slow-down are disconnected simultaneously. 102: The up limit feedback and down limit feedback are disconnected simultaneously.	101, 102: Check whether the states (NO, NC) of the slow-down switches and limit switches are consistent with the parameter setting of the MCB. Check whether malfunction of the slow-down switches and limit switches occurs.	4B
Err62	Err62	Analog input cable broken	The Analog input cable of the CTB or the MCB is broken.	101: Check whether F8-08 is set correctly. Check whether the Analog input cable of the CTB or MCB is connected incorrectly or broken.	1A