

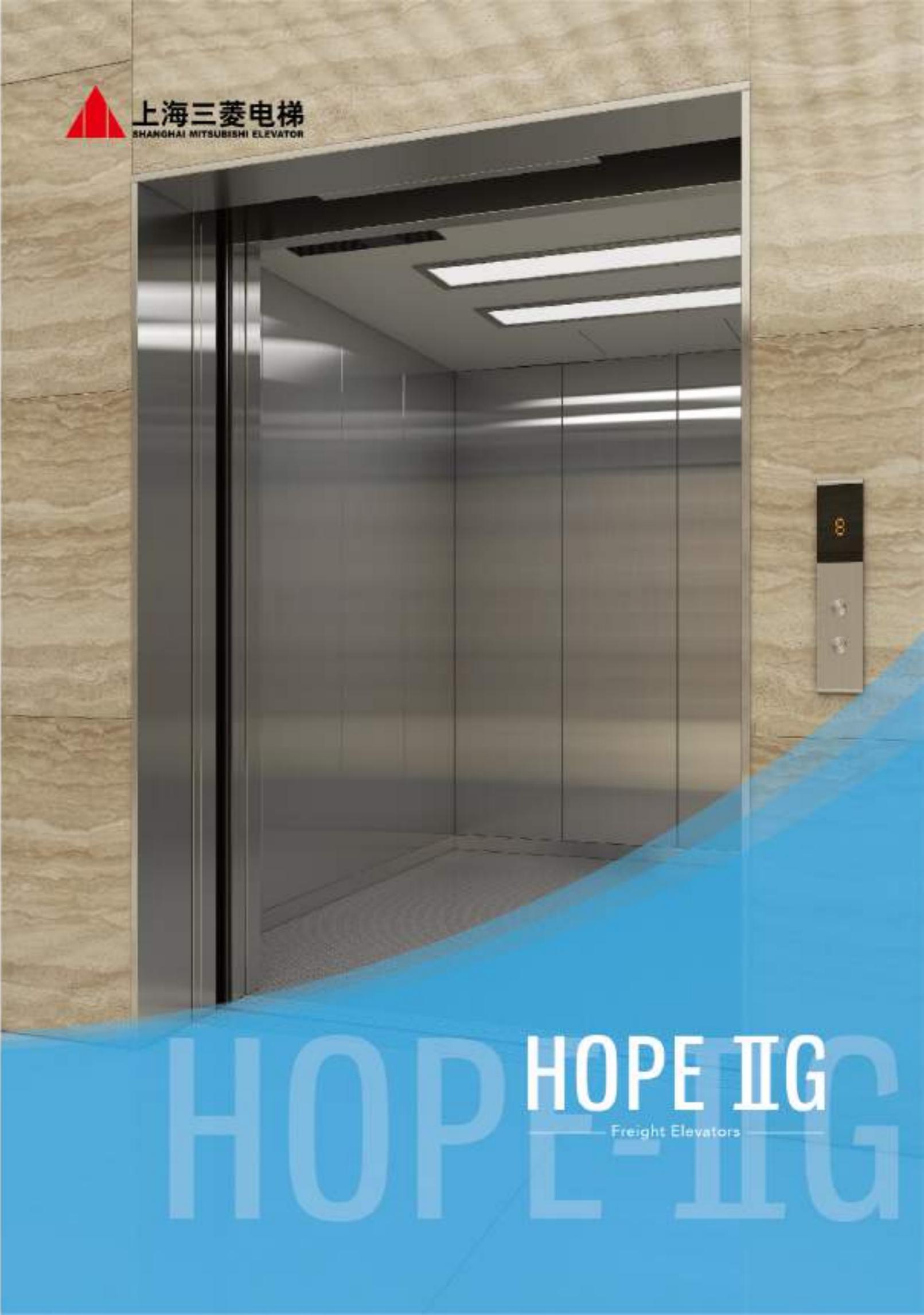
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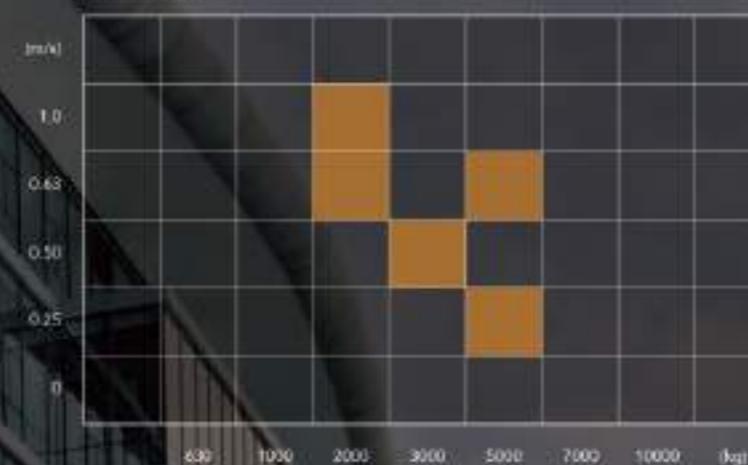


## Handle Complicated Matters With Great Ease

The HOPE-IIIG freight elevator no longer adopts traditional general frequency converter driving technology, but combines the VVVF vector transformation formerly used in SMEC passenger elevators with high-power driving system. Thus the technical and professional level of the freight elevator is greatly raised, and make HOPE-IIIG operate as smooth and comfortable as passenger elevator. At the same moment, the utilization of intelligent high-power module (IPM) protects the power module more effectively with the swift protection circuit, which further promotes the reliability of the driving system.

HOPE-IIIG freight elevator integrates various cutting-edge technologies, and operates with high efficiency and energy saving. The utilization range varies from different levels of load capacity, from 600kg to 10000kg.

### Utilization



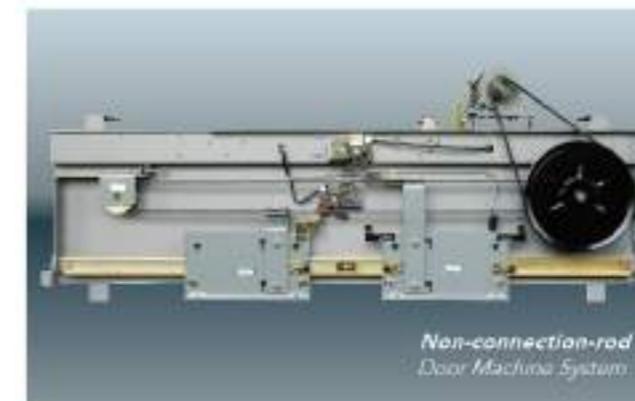
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## Technical Assistance, Four Major Technologies

### Safe And Reliable Door Machine System

The AC VVVF door machine system is adopted without connection rod, and the system also integrates the synchronous door machine driving technique of passenger elevator, thus easily achieves the car door drive of different door open sizes; utilizes the double close-circuit control system and AC VVVF technique at the same time, to drive and control various door systems at the best torque, the reliability of door open and close is further improved, and door system of HOPE-IIIG is safer and more humanistic.



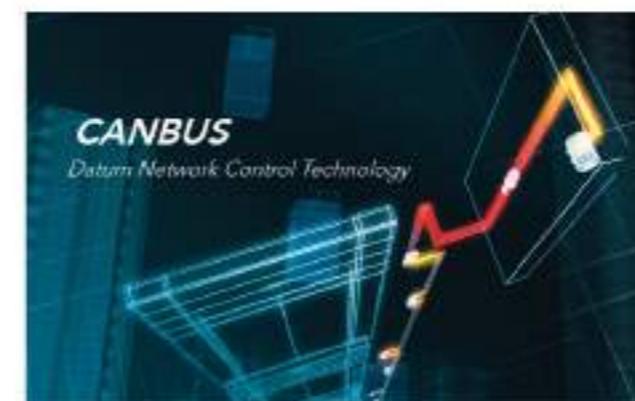
### Professional AC VVVF Driving Technology

The HOPE-IIIG freight elevator no longer adopts traditional general frequency converter driving technology, but combines the VVVF vector transformation formerly used in SMEC passenger elevators with high-power driving system. Thus the technical level and professional level of the freight elevator is greatly raised, and make HOPE-IIIG operate as smooth and comfortable as passenger elevator. At the same moment, the utilization of intelligent high-power module (IPM) protects the power module more effectively with the swift protection circuit, which further promotes the reliability of the driving system.



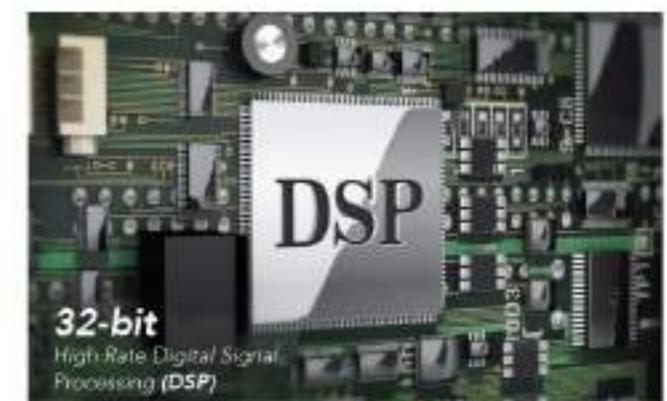
### CANBUS Datum Network Control Technology

Based on field bus, CANBUS datum network control is adopted, and brings features of high reliability, high transmission rate, outstanding real-time performance, large amount of transmission data and flexible data transmission. The real-time elevator load will be carried out precisely according to the inspection result, torque will be controlled in advance to the elevator to avoid the start shock, the real-time torque control is adopted during the operation to make the elevator operate smoothly at all time.



### Full-Digital Control And Motor Driving Technology

Combining 32-bit CPU, 32-bit high rate Digital Signal Processing (DSP), Field Programmable Gate Array (FPGA) with thousands of gate circuit and world-class Surface Mounting Technology, to achieve the full digital control and motor driving to further improve the control function and reliability of the system, completely ensures the comfort and safety of the elevator riding.



SMEC's freight elevators consider the special requirements for cargo transportation in design. The car is designed for improved reliability and durability to meet the needs of different buildings. With steel plate bending technology, the car has increased strength and rigidity as well as enhanced appearance.



#### Durable Buttons

The button life reaches up to 5 million times. The reinforced stainless steel button caps designed dedicated for residential elevators adopts anti-falling hook design, which may be resistant to sabotage.

(1kg block falling from a height of 0.5m to the button surface for three times and the button can still work normally.)



A12  
Diameter 35mm  
Machinery Fine Motion  
Standby Micro-light  
Stainless Steel Surface

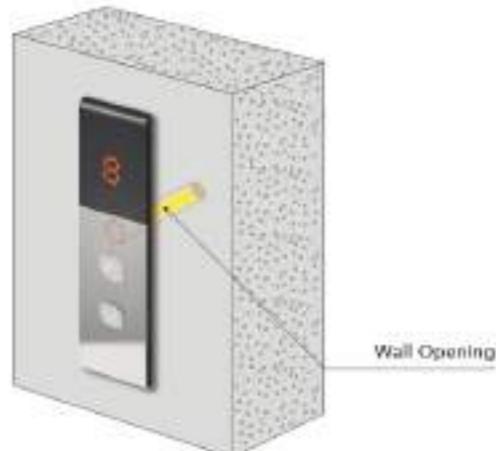


ZCBA12-CD61(Auxiliary)

## Landing Display and Landing Call

### Easy to install Wall-mounted Call

Call without bottom box does not require reservation of rectangular holes on the wall but small round holes on the wall for installation. The construction is easier and the installation is more convenient.



ZPIA12-GD10  
Hairline Stainless Steel Panel

## Hall Door and Jamb

### E-102

Narrow Jamb (Standard)



Landing Display Call:  
ZPIA12-GD10  
Door Opening Mode:  
Side Opening (S), Four Panel Center Opening Door (2CO)  
Landing Door Material:  
Painted Steel (Standard)  
Jamb Material:  
Painted Steel (Standard)

### E-302

Wide Jamb (Option)



Door Opening Mode:  
Four Panel Center Opening Door (2CO)  
Landing Door Material:  
Hairline Stainless Steel (Option)  
Jamb Material:  
Hairline Stainless Steel (Option)

Func.	Description	Code	TC SMC	TC SM21	TC-HC SM21
<b>■ Control and Safety Features</b>					
Automatic Landing with Rheostatic Leveling	When the elevator is in the door zone, but outside of the re-leveling zone, it will automatically level.	ARL	S	S	S
Elevator-hindered Stall Protection	When traction steel rope is slipping for the pre-set time, the elevator will stop running.	AST	S	S	S
Brake Redundant Protection	When the elevator double-brake goes wrong, the other braking feature can also carry out the braking function.	BTUP	S	S	S
Door Interlock Bypass Operation	Bypass the hall door or car door safety circuit via the door interlock bypass device to facilitate the maintenance of hall door contact, car door contact and door interlock contact.	DBO	S	S	S
Door Interlock Short Safety Protection	In auto mode, if the door interlock switch is detected shorted, stop the elevator to protect passengers.	DSSP	S	S	S
Electrical Circuit Safety Protection	The parallel-connected device stops elevator running, when activated.	ESC	S	S	S
Inspection Operation	Inspection operation mode for maintenance staff.	INSP	S	S	S
Load Weighing Start	The car may safely and smoothly start up by adjusting starting torque according to the load in the car.	LWS	S	S	S
Over-Current Protection	The elevator stops operating when electric current is detected too high through rectifier or inverter device.	OPC	S	S	S
Over-Speed Protection	The elevator stops operating when operation speed exceeds the limit.	OSP	S	S	S
Over-Voltage Protection	The elevator stops operating when voltage is detected too high through rectifier or inverter device.	OVP	S	S	S
Power Failure Protection	The elevator stops operating when errors, such as phase open or failure or undervoltage, is detected.	PPF	S	S	S
Power-on Releveling	If the car stops in the range of door area due to power failure, it will relevel to the leveling position after the power is recovered.	PORL	S	S	S
Reverse Operation Protection	The elevator stops operating when a reverse movement is detected.	RSP	S	S	S
Selector Correction	Make correction to the selector during the operation of elevator.	SC	S	S	S
Safe Parking	When a car stops outside of door zone due to any trouble, the controller will make a safety test. If it meets the requirements of start, the car will run to the closest landing, to park for opening the door.	SFL	S	S	S
Stop Open	When a car lands at a hall, the car will start opening after the car stops completely.	SO	S	S	S
Thermo-Detection in Inverter	The elevator stops operating when the inverter device is detected over heated.	THMF	S	S	S
Terminal Coercive Slowdown	The car is coercively slowdown by the system to reach normal landing. If the speed does not decrease to the limit when the car reaches the terminal.	TSD	S	S	S
Unintended Car Movement Protection	Elevator safety component to stop unintended car movement away from the landing with the landing door not in the locked position and the car door not in the closed position, as a result of any single failure of the lift machine or drive control system.	UCMP	S	S	S
Under Speed Protection	The elevator stops operating when the speed is detected under limit.	USP	S	S	S
<b>■ Operational and Service Features</b>					
Automatic Bypass	When the car load exceeds 80% of rated load, it ignores other hall calls automatically to avoid useless stop and increases the efficiency of car traveling.	ABP	S	S	S
Attendant Service	The normal operation of elevator can be handled by an attendant.	AS	A	A	A
Bypass	Bypass all hall calls when the attendant serves and activates the 'Bypass' button.	BP *1	A	A	A
Car Computer Back Up Operation	When pc on car station has abnormal condition, the car will stop at the nearest floor and be unable to restart.	CCBK	S	S	S
Reversal Car Call Canceling	Under full-automatic mode, when a car finally responds to the last car call, all other registered car calls behind the car service direction will be canceled simultaneously.	CCC	S	S	S
Auto-Shutdown Of In-Car Venting Device	When elevator stands by without any direction for a while, the in-car venting device will automatically shut down, to save energy.	CFO-A	A	A	A
Car Fan Shut Off – Manual (button type)	The car ventilation fan is turned off by combination buttons on the operation panel.	CFO-B *2	S	S	S
Auto-shutdown Of In-car Lighting	When elevator stands by without any direction for a while, the in-car venting device will automatically shut down, to save energy.	CLO-A	A	A	A
Car Light Shut Off – Manual (button type)	The car light is turned off by combination buttons on the operation panel.	CLO-B *2	S	S	S

Func.	Description	Code	TC SMC	TC SM21	TC-HC SM21
<b>■ Operational and Service Features</b>					
Continuity of Service	To ensure normal operation of elevators in a whole group, when a certain elevator cannot respond registered landing calls, it will be excluded from landing call service, and service is provided by other elevators.	COS	—	S	S
Elevator Fault Self Diagnosis	Self diagnose the errors and faults during the elevator operation.	EFD	S	S	S
Emergency Exit Switch	The switch is used for test the emergency exit condition.	EXIT-SW *3	A	A	A
Auto Cancel Of In-car Error Command	If press the in-car command button by mistake, just press this button twice to cancel the command.	FCC-P *4	A	A	A
Floor Height Auto-Measurement	Automatically measure and save the landing height.	FMR	S	S	S
Automatic Hall Call Registration	When one elevator cannot take all passengers, the landing button remains registered state, and the system will assign another elevator to provide service.	FSAT	S	S	S
Group Control Backup Service	Maintain service of individual elevators when group control becomes invalid due to failure of the group control controller or failure of communication between the group control and individual stations.	GCBK	—	—	S
Hall Computer Back Up Operation	When the hall station has been troubled, the car will stop at the nearest floor and is unable to restart.	HCBK	S	S	S
Hall Out-of-Service Switch	RUN/STOP operation of an elevator can be controlled by using a key switch installed in the specified elevator hall.	HOS	S	S	S
Independent Service	Using the Independent switch in the operation panel, the car can respond only to car calls without interrupting service.	IND	S	S	S
Non-service to Specific Floor (switch type)	Operating this switch can cancel service to specified floors.	NS *5	D	D	D
Non-service to Specific Floor (car button type)	Cancel service to specific floor by operating buttons on the operation panel and the setting switch.	NS-CB *6	A	A	A
Non-Service Warning	Assigned landing calls are cancelled, and in-car command is saved, when landing calls and in-car command are registered, but the elevator does not serve at pre-set time. Abnormal light is lit, with ringing of alarm bell.	NST	S	S	S
Parking On Next Landing	When an elevator arrives at destination floor, but can not fully open its door, it would run to next lower floor until the door can open fully, and then it restores its normal running.	NXL	S	S	S
Overload Warning	In case of overload of car, the elevator would keep its door open, and the buzzer gives sound.	OLH	S	S	S
Remote Control Stop	Start or stop the car through the remote control switch.	RCS	A	A	A
Return Operation	Operating Return switch to immediate call the car back to specified floor and park there.	RET	A	A	A
Secret Call Service (car button type)	Lock certain floors on the operation panel by setting password. The buttons of those specified floors can only be registered after the password is entered on the operation panel.	SCS-B *7	A	A	A
Secret Call Service (IC card type)	The buttons of certain specified floors can only be registered via IC card.	SCS-IC *8	A	A	A
<b>■ Emergency Operation Features</b>					
Car Emergency Lighting	When the normal lighting power is shut, the car emergency lighting will be provided at once.	ECL	S	S	S
Emergency Electric Operation	Bypass some electrical safety devices through the emergency electric operation device to control the operation of the car.	EEO	S	S	S
Earthquake Emergency Return (S-wave)	When S-wave earthquake detector acts, the car immediately parks at the nearest floor with door opened.	EER-S	A	A	A
Emergency Parking In Power Failure	When the normal power supply fails, the elevator is powered by its in-built rechargeable batteries, to allow the car to run to the nearest landing, and opens the door, the firemen will control the elevator running.	EPI *9	A	A	A
Alarm Bell	In emergency, press this bell, which will make a sound also in talk system.	EMB	S	S	S
Fireman's Emergency Operation	When a fire happens, fireman switch actions, a car returns to the predetermined evacuation floor, then door opens canceling all calls from landings or car, the car is available for fireman's use.	FE	A	A	A
Fire Emergency Return	When the fire emergency return switch is actuated, it will cancel all landing calls and in-car commands, and the elevator returns to the preset landing, and opens the door.	FER	A	A	A
Operation by Emergency Power Source – Sole Automatic	When normal power supply breaks, the pre-assigned cars will be powered by the emergency power source of the building and automatically travel to the predetermined floors in order. Once all cars have arrived at the predetermined floors, the specified car can operate normally.	DEPS-SA	A	D	A

Func.	Description	Code	TC SMC	SC SM21	PC-IC SM21	PC-IC SM21
<b>■ Emergency Operation Features</b>						
Remote Service System	Monitor elevator operation in real time, send faults or abnormalities to the Service Center of the company via wireless network in a timely manner, and process them quickly. Provide customers with value-added services by establishing customized maintenance program.	REMES-II *10	A	A	A	
<b>■ Smart Elevator and Escalator Monitoring System</b>						
Smart Elevator and Escalator Monitoring System	This system monitors the operation state of the elevators, escalators and moving walks. For elevators, remote control feature is optional; for escalators, intelligent monitoring, intelligent start and stop in the morning and evening and preliminary fault diagnosis services and intelligent attentive announcer are optional.	SmartEye *10	A	A	A	
<b>■ Door Operating Features</b>						
Door Close Limit Switch on Start	When the closing car door is unable to be fully closed, the doors will reopen.	CLTS	S	S	S	
Double Door Operation	When car doors are in open state, if there is no car call and landing call in forward direction and the landing call in reverse direction of this floor has been registered, the car doors will close and then immediately open again.	DDOP	S	S	S	
Door-Open Delay Button	To press this button will prolong the period for keeping the door open.	DKO-TB	A	A	A	
Door Load Test	If the door can not be fully opened or closed due to overload, the elevator door will move in the reverse direction.	DLD	S	S	S	
Door Sensor Self-Diagnosis	If the malfunction of the non-contact type sensor occurs, the elevator system will force doors to close to keep the elevator service.	DDDA	S	S	S	
Door Opening Resistance Control	If the door opening is hindered, the door will be closed at once.	DONO	S	S	S	
Auto Adjustment For Door-Kept-Open Period	Automatically adjust the period for keeping the door open according to the landing call or in-car command.	DOT	S	S	S	
Door-Closed Torque Control	Torque is increased by the door system automatically when extra obstruction force is applied to the closing car door.	DTC	S	S	S	
Prompt Close Door	After parking and open the door, the elevator will close the door promptly once pressing the close button.	EDC	S	S	S	
Multi-Beam Screen Safety Shoe	The door can make use of the double protection of the multi-beam screen and safety edge. During door closure, if it detects any passenger or object, the elevator will re-open the door.	MBS	S	S	S	
Bell-Ring Forced Close Door	If the period for keeping the door open exceeds the pre-set time, the elevator will give warning sound to remind the passengers, and try to close the door.	NDG *11	A	A	A	
Re-Close Door	If the door closure is hindered, the elevator will close the door repeatedly till the foreign matter is removed.	RDC	S	S	S	
Re-Open Door At Local Landing	In the process of door closing, if pressing the call button at the same landing, the elevator will open the door again.	ROHB	S	S	S	
<b>■ Information and Display Features</b>						
Voice Announcer	The voice announcer will inform passengers of relevant elevator message in Chinese.	AAN-S01 *12	A	A	A	
Voice Announcer	The voice announcer will inform passengers of relevant elevator message in Chinese and English in turn.	AAN-S02 *12	A	A	A	
Voice Announcer	The voice announcer will inform passengers of relevant elevator message in English.	AAN-S03 *12	A	A	A	
Car Arrival Electronic Resonator	The electronic resonator will remind passengers of the car arrival at the destination landing (the resonator is fixed on the top and bottom).	AECC *13	A	A	A	
Landing Auto Running Indication	The landing display indicates the elevator under the auto operation condition.	AUTL	S	S	S	
Signal Interface Device	Through this device, to output the signals of the elevator's basic running conditions.	BA *14	A	A	A	
Landing Non-Stop Running Indication	The landing display indicates the elevator under the non-stop operation condition.	BPL *15	S	S	S	
In-Car Running Direction Indication	Use the arrows set in car to indicate the running direction.	DAC	S	S	S	
Direction Arrows on Hall	Indicates running direction with arrows on the hall.	DAH	S	S	S	
Door-Close Button Response Light	The Door-Close button light illuminates at the same time when this button is pressed.	DCR	S	S	S	
Extended Door-Opened Button	When pressing "Extended Open", the button lamp is lit for a certain period of time.	OKOL *16	A	A	A	
Responding Indication	When pressing "Open" button, this button lamp is lit at the same time.	DOL	S	S	S	
Elevator Counter/Timer	Record number of runs and running time of the elevator.	ECT	S	S	S	
Fireman's Emergency Operation – Complete	The fireman's emergency operation is activated, the elevator runs to specified return floor, then the elevator outputs an in-place indicating signal.	FE-CP *17	A	A	A	

Func.	Description	Code	TC SMC	SC SM21	PC-IC SM21
<b>■ Information and Display Features</b>					
FE Operation Signal Lamp in Car		FELC *18	A	A	A
Fire Emergency Return Results		FER-CP *19	A	A	A
Intercom Device		ITP *20	S	S	S
ITV cable (analog)		ITV-A *21	D	D	D
ITV cable (digital)		ITV-D *21	A	A	A
ITV cable (for SMOS)		ITV-S *22	A	A	A
In-Car Overload Indication		OLHL	A	A	A

## Notes:

- \*1. Optional when A5 is provided.
- \*2. Combination keys operation mode.
- \*3. If there is an emergency door to the hoistway.
- \*4. When SCS-IC is available and works, this feature is invalid.
- \*5. Need to specify the set floor of NS switch.
- \*6. No need to specify the set floor of NS switch.
- \*7. SCS-IS cannot be configured at the same time.
- \*8. Two operating panels are required if this feature is configured for 1D2G, and 2D2G.
- \*9. Optional in the case where the distance between adjacent landing stations is not more than 12m.
- \*10. A maintenance contract needs to be signed with Shanghai Mitsubishi Elevator Co., Ltd.
- \*11. Optional when AM5 is provided. Standard when MBS is provided.
- \*12. Only one of AAN-S01/S02/S03 can be selected at most.
- \*13. Only one of AECC and AECH can be selected.
- \*14. Output signals are UP, DOWN, integrated fault, landing station code signals. The output signal terminals are in the control cabinet in the machine room. Output modes are dry contact and RS485 series communication.
- \*15. Standard when ABP or BP is provided.
- \*16. Standard when DKO-TB is provided.
- \*17. Standard when FE is provided.
- \*18. Optional when FE is provided.
- \*19. Standard when FER is provided.
- \*20. The customer is responsible for the cables from the machine room to the monitoring room and their installation.
- \*21. Only one of ITV-A/ITV-D/ITV-S can be selected at most.
- \*22. Only one of ITV-A/ITV-D/ITV-S can be selected at most. Optional when SmartEye is provided.
- \*23. S: Standard A: Optional D: Non-standard —: Not Applicable

Item	Specifications					Note
Speed (m/s)	1	0.63	0.5	0.35	0.25	
Capacity (kg)	2000	2000				
			3000			
			5000		5000	
Traveling Height (TR) (m)	3.60			3.3-60		
	3.3-60	3.3-60	3.3-60			
Num. Stops	2-16					
Operation Mode	1C-2BC					
Control Mode	VFEA					
Door Opening Type	1D1G, 1D2G, 2D2G					For 1D2G & 2D2G, only front door COP is standard configuration, while rear door COP need custom design.
Door Opening Mode	Four Panel Center Opening Door					JJ≤1500 and Cap=2000kg~5000kg
Dynamic Power	380V 50Hz 3 phases, 5 lines					
Lighting Power	220V/50Hz					
In-car Clear Height (mm)	2200			Cap≤3000kg		
	2400			Cap>3000kg		
CWT Safety Gear	Optional for 630 kg~5000 kg					
CWT Position	Side					
Min. Landing Height (mm)	≥3000 [Cap=2000kg, HH=2200mm, steel sill bracket is configured (Four Panel Center Opening Door)]					
	≥3110 [Cap=2000kg, HH=2200mm, concrete sill bracket is configured (Four Panel Center Opening Door)]					
	≥3300 [Cap=3000kg~5000kg, HH=2400mm, steel sill bracket is configured]					
	(3100) (the value in brackets is applicable to HH=2200 mm)					
	≥3410 [Cap=3000kg~5000kg, HH=2400mm, concrete sill bracket is configured]					
Landing Display Range	(3210) (the value in brackets is applicable to HH=2200 mm)					
	B1, B2, B3, B, G, M, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, -1, -2, -3					

