







Skylane™

# XJ SIEMENS

Skylane High Speed Elevator

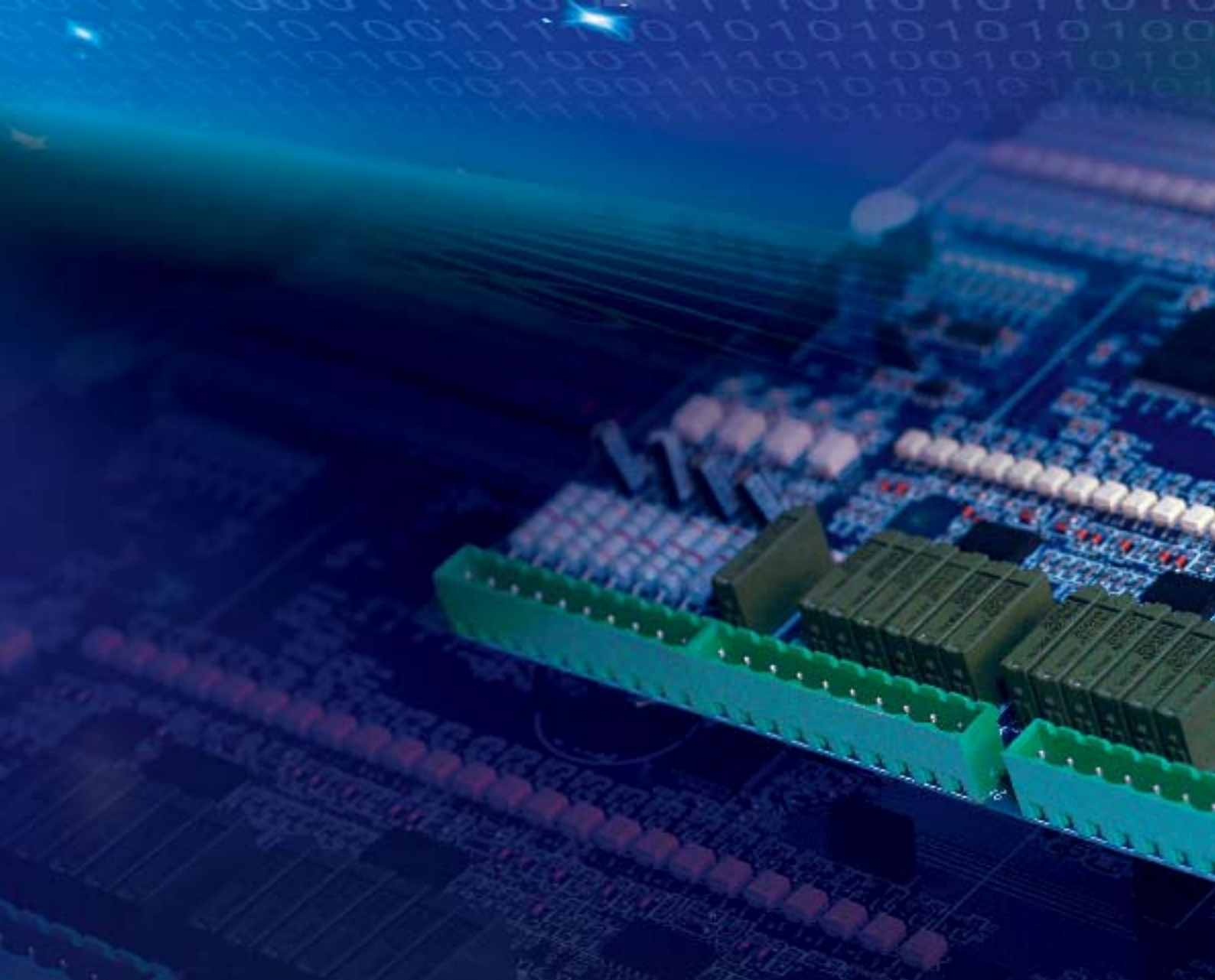
-  English
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# 100 + 60

SIEMENS - 100 years in Automation & Drive  
XJ - 60 year in Electrical Control & Protection

# Skylane High Speed Elevator

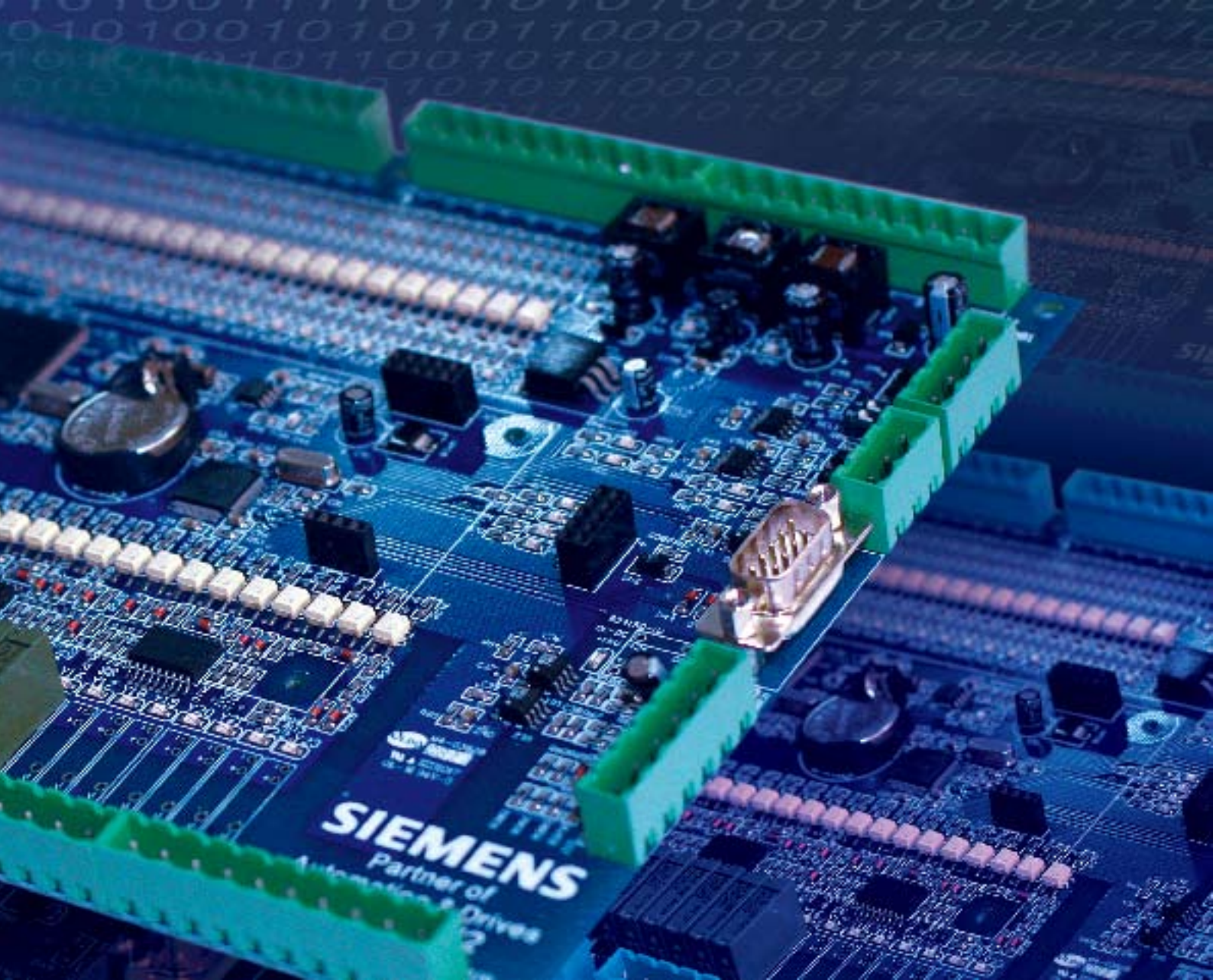
Derived from 100 years of experience in automation & drive and 60 years of control and protection technologies, XJ had successfully build up its robust platform for the high speed elevator products. Skylane, with maximum 6m/s running speed, is able to archieve your perfect vertical dreams.



# SM6000 Controller

## Reliability

- Dual-core 32bit CPUs backup structure with 2 $\mu$ m calculation circle. Both CPU work simultaneously and independently to share data with each other. In event of failure in any one CPU, the other one can take over immediately. The dual CPU robust structure gives 200% protection for running safety and reliability.
- No-extension structure provides better anti-interference capability, input and output are fully isolated. The design is fully compliance with IEC255-22-1/2/3/4 EMC standards.
- Communication module has independent power supply to isolate interferences.
- Wider temperature range (-40<sup>0</sup>~125<sup>0</sup>), guarantees safety and reliability in extreme environments.
- Active protection. In event of abnormality, controller can actively take the predefined mechanical safety protection measures to guarantee riding safety.



- Powerful data process and storage ability, controller can keep more detailed running information and history records.

## Efficiency

- Dispatching system is based on the modern Dynamic Applying Algorithm, the grouping system can be more efficient and co-ordinated to achieve better dispatching ability.
- Equipped with many efficient functions enables the elevator for higher accuracy and efficiency, such as door advanced opening, predicate operation, direct parking and ect.

# Skylane Traction Machine

up to 6m/s speed and 3200kg loading

- Powerful

Optimized PM motor running performance;

Up to 290% overloading capability;

Up to 180KN shaft loading;

5,000,000 guaranteed free service braking actions.

- Long Lift-span

Finely selected bearing components can continuously operate 28,000 hours in full load condition, or 25 years in normal working condition.

- Robust

Seamless structure design, mechanical distortion is minimized.

- Reliable

Adopt the most advanced air-gap and EMF design, the stator temperature rise after long time running is only 41K.

- Quiet

With the best PM solution and the finest workmanship, the running noise is only 43dB.



Trustable engine, to fulfill our mission



# Efficient Driving System

Skylane is driven by selected robust vector inverter, its high reliability and calculation techniques ensures the overall system to be perfectly compatible for high speed applications.

- Parameter self-adjusting feature can bring the better riding performance and make testing easier.
- Flexible speed curve setting. It is able to input multiple S speed curve and 4 levels acceleration/deceleration time settings to provide maximumly flexible control.
- Incorporated with numerous useful features, such as brake contact control, overspeed protection, speed error protection, overheating protection and starting torque compensation.



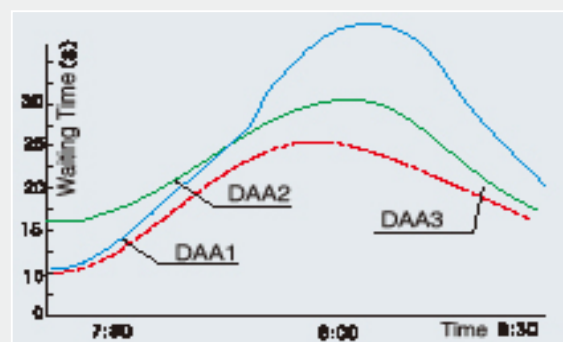
Intelligent Group Elevator  
Dispatching System (IGEDS)

the heavy traffic solution  
supports up to 8 x 48-storey elevators

## Dynamic Applying Algorithm (DAA)

**to dispatch in smartest way**

DAA is implemented based on nerve-net's strong self-learning capability. DAA monitors the traffic information and the elevator dispatching instruction at all time, then classify these data into different Rule-sets(RS). By comparing the historical average waiting time among different RSs, DAA knows which RS can bring the shortest waiting time for a certain period. Therefore, DAA is able to conclude and generate a new rule set to best accomodate the whole day, which is named as Dynamic Rule Set (DRS). IGEDS will use DRS as its dispatching strategy.



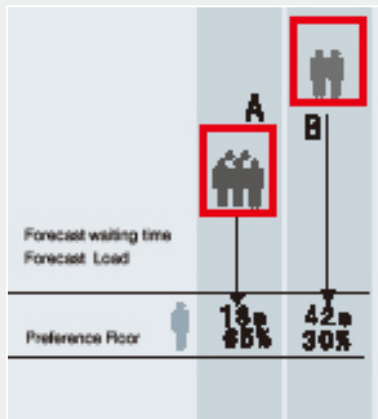
DAA Demonstration





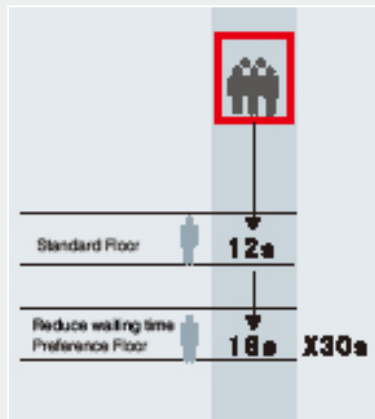
## Dispatching Scenario

When multiple call requests received, IGEDS evaluate the relationships among call origin floors, call destination floors, elevator location and elevator loading status to carry out comprehensive DAA calculations, and works out the best dispatching scheme.



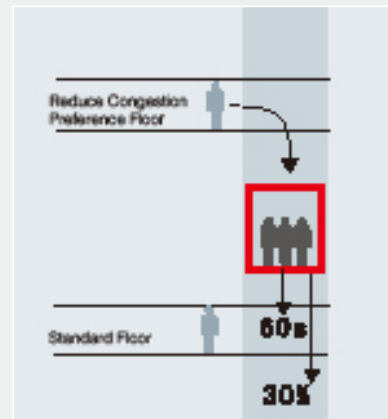
### Floor Control Concept

Based on cabin status forecast, choose A to cut down waiting time, while B for less congestion.



### Scheme A: Reduce waiting time

Overpass standard floor and directly reach to the floor with earliest call request.



### Scheme B: Reduce congestion

Reach to standard floor first to reduce cabin loading, then move to the congestion floor.

## Re-Gen Technology

User can add an optional re-gen unit into Solaris built-in interface. Re-gen unit can transform kinetic energy into clean electricity, and feedback back to local/public grid.



## Super Hoistway Lubrication Structure

System integrates with patented SHL structure. SHL achieves the best frictional factors to reduce moving resistance and related noise and vibration.



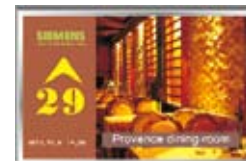
## Door Status Scanning

System automatically scan all the landing door status to locate the fault immediately, which is greatly useful for high rise building trouble-shooting or maintenance.



## Multi-media Display

True color display for lift status and other multi-media information. Able to support audio output and built-in USB interface. Good to display weather forecast or other customer specified information and advertisements.



## ARD Rescue

In the event of power failure, the system automatically changes over to the equipped battery power to bring the elevator to the nearest floor, keeps the elevator safe even during the black-out.



## Air-Conditioning

Special air-condition can be add into Skylane elevator.

- On/Off time can be programmed
- Quiet running performance
- Overheat, overvoltage protection
- Built in dust-filter and oxygen ion generator.



## Access Control

Skylane can easily incorporate the smart card access system to control the access to the certain floors by means of magnetic, IC or RF contactless cards



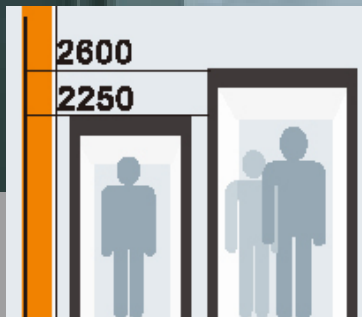
## Remote Monitoring

Skylane can be equipped with remote monitoring tools by supervisory panel, PC monitoring system or Wireless communication platform.



# Extra Headroom

Skylane has a spacious cabin as compared to industry standards, its 2.6m clearance height compliments your building with more elegance and luxury.





Delighting yours...

此页林总建议把商务调一下，我改后马上通知您

# JX10

This design highlights the use of Titanium and etching finishing. Available in a series of colours, the model achieves a majestic and extravagance atmosphere.

## Specification

|            |   |
|------------|---|
| Ceiling    | X50C titanium mirror finishing                          |
| Car walls  | Titanium etching combined with wood pattern steel sheet |
| Flooring   | Granite by others                                       |
| Car door   | Titanium etching  |
| Front wall | Titanium etching  |
| Handrail   | FS-11WT titanium for 3 sides                            |
| COP        | CZP-19TV  |
| Plate      | Titanium plate  |
| Indicator  | VFD display   |
| Button     | AN19 braille button                                     |

*\* Refer to etching pattern selection*



# JX11

Perfect combination of mirror and etching creates the wonderful visualization and sensual space for business elites.

## Specification

|            |   |
|------------|---|
| Ceiling    | X12C S/S mirror                             |
| Car walls  | S/S mirror etching combined with S/S mirror |
| Flooring   | Granite by others                           |
| Car door   | S/S mirror etching                          |
| Front wall | S/S mirror etching                          |
| Handrail   | FS-11WJM S/S handrail for 3 sides           |
| COP        | Incorporated into front panel               |
| Indicator  | Monochrome LCD display                      |
| Button     | AN19 braille button                         |

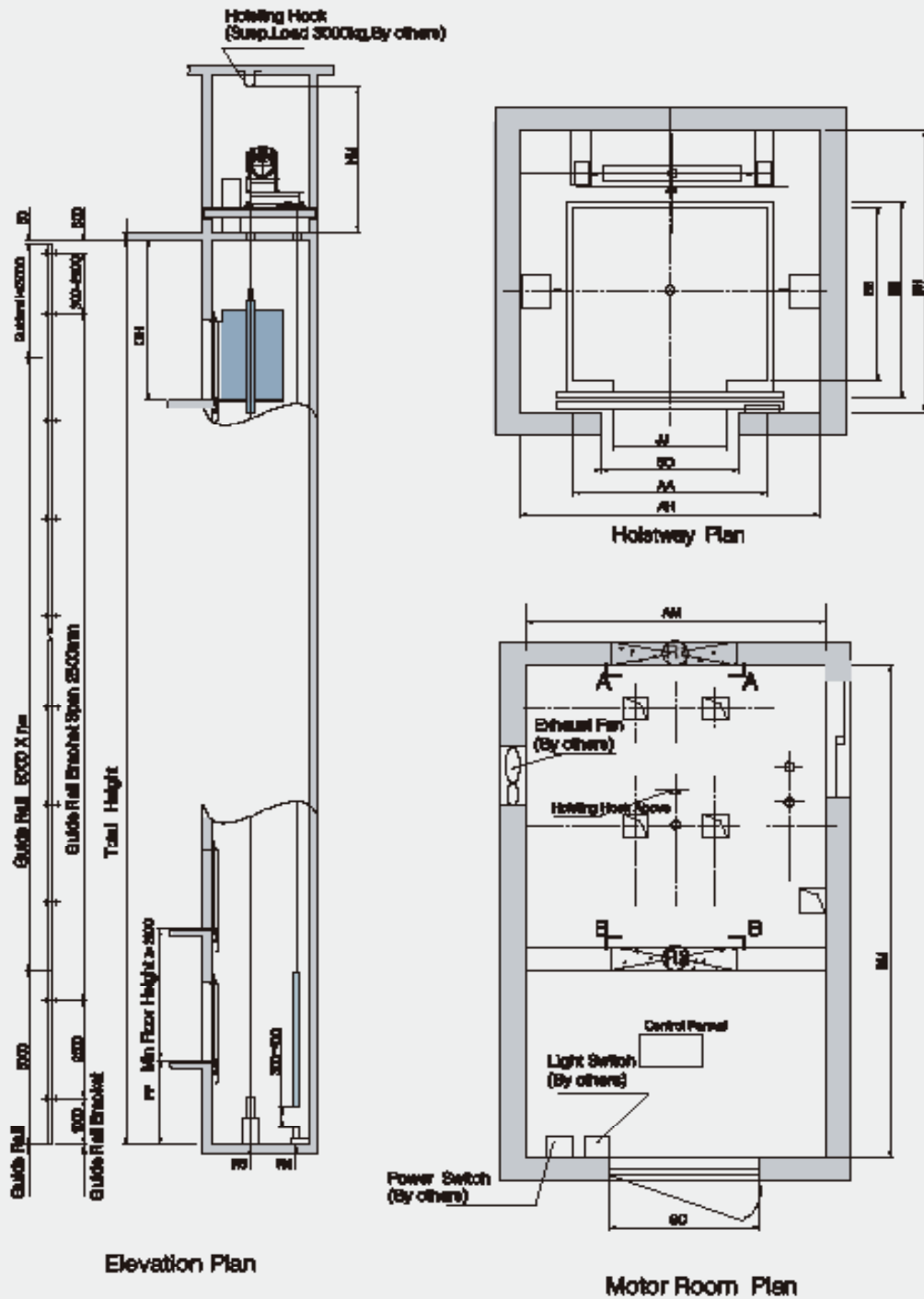
*\* Refer to etching pattern selection*



*\* Refer to etching pattern selection*



# Skylane High-speed Elevator Standard Layout Drawings



| Model           | Speed (m/s) | Load (Kg) | Entrance Opening (JJ) | Door Opening (SO) | Cage Size AA×BB | Hoistway Size AH×BH | M/C Size AM×BM | Pit Depth (PP) | Min Overhead (OH) | Min Hook Height (HM) |
|-----------------|-------------|-----------|-----------------------|-------------------|-----------------|---------------------|----------------|----------------|-------------------|----------------------|
| 9000-KT-10-30-F | 3.0         | 1000      | 800                   | 950               | 1560×           | 2400×               | 4200×          | 4000           | 6000              | 2800                 |
| 9000-KT-10-40-F | 4.0         | 1000      | 800                   | 950               | 1470            | 2400                | 2400           | 4500           | 6500              | 2800                 |

## Functions

● - Standard function; ○ - Optional function; ◎# –Standard function but rely on an optional function numbered with #.

| ID | Function                            | Description   | Spec |
|----|-------------------------------------|---|------|
| 1  | Selective Collective Control        | System collects hall/car call signal from COP and hall calls, automatically arrange the responding sequence according to the current running position and direction, and respond on every individual registered call  | ●    |
| 2  | Duplex Control                      | Fully automatic operation used for a two elevator system. Calls are responded to by whichever car that can serve the call faster. When there is no call, one of the cars will standby at the starting floor while the other car stops at the pre-designated floor.                        | ○    |
| 3  | Group Control                       | A group control system is used when there are more than two elevators operating in a group (up to 16 elevators). Using XJ group control dispatching algorithm, system reduces waiting time by computing forecasts of waiting time and distributing them evenly among all cars controlled. | ○    |
| 4  | Auto turn-off car light & fan       | When the elevator is not in use for pre-designated period, the light and ventilation fan in the car are automatically turned off to conserve energy.  | ●    |
| 5  | Car emergency lighting              | An emergency light will be activated automatically when power failure occurs.   | ●    |
| 6  | Maintenance Operation               | Elevator operates at lower speed during maintenance   | ●    |
| 7  | Overload protection                 | This system will activate an audio/visual signal and prevent the elevator from moving when it is overload.  | ●    |
| 8  | 5-Way communication                 | An interphone system among car, machine room, car top, pit and guard house is provided for emergency communication.   | ●    |
| 9  | Nearest landing operation           | In the unlikely event of temporary trouble during operation, the elevator automatically goes to the nearest floor at low speed to prevent passengers from being trapped inside.   | ●    |
| 10 | Fault recovery due to power failure | Once power supply recovered, elevator moves to the nearest floor and restore the normal operation.  | ●    |
| 11 | Rescue operation                    | When the elevator stops out of the door open zone, it will move to the nearest floor at slow speed to release passengers.   | ●    |
| 12 | Attendant operation                 | After activation, the stop floor is selected by an elevator operator, during attendant operation, hall call can be responded.   | ●    |
| 13 | Independent operation               | After activation, the elevator can only respond to car call selection but ignore hall call commands..   | ●    |
| 14 | VIP operation                       | When VIP switch turned on, elevator can only move to designated VIP floor and ignore any car call and hall call request. Once completion, VIP switch automatically resets and elevator restores back to normal operation. (VIP switch can be either key-lock switch or card reader)       | ●    |
| 15 | Car roof escape hatch               | In the event of emergency, passengers can be rescued and escaped through the hatch which can only open outside.   | ○    |
| 16 | Operating handset                   | For security reason, main board does not come with display screen and operation keypad, which are integrated into a operating handset and provided separately   | ○    |
| 17 | Floor no. display char-set          | System supports rich of signals, letters and numbers for various floor number indication  | ●    |
| 18 | Micro-leveling operation            | Automatic correct of elevator landing level when subjected to varying car load  | ●    |
| 19 | Standby floor setting               | A floor can be specified as standby floor, which used in automatic returning function   | ●    |
| 20 | Automatic Returning Function        | After all the calls have been served, the elevator returns to the pre-designated standby floor.   | ●    |



| ID | Function                                | Description   | Spec            |
|----|---|---|-----------------|
| 21 | Automatic door time adjustment          | The duration for the doors to remain open is automatically tailored to current situation, substantially improving operational efficiency.   | ●               |
| 22 | Door vision panel                       | Car/landing door can be equipment with transparent vision panel to gain better security and vision.   | ○               |
| 23 | Door holding time adjustment            | Door open holding time can be manually adjusted to prolong or shorten door open time  | ●               |
| 24 | Door open at next landing               | When door fail to open at certain landing, elevator moves to the next landing to release passengers.  | ●               |
| 25 | Faulty record                           | Main board can store faulty records for last 20 break-downs with error codes and trouble-shooting information.  | ●               |
| 26 | Hall call self-diagnose                 | When a hall call button signal keeps ON for more than 20 seconds, the elevator determines this button is faulty and isolated it from system and twinkle the button lamination till the button signal is OFF.              | ●               |
| 27 | Door operator protection                | Includes overvoltage protection, overheat protection, short circuit protection, earth protection, overload protection, PTC protection, overspeed protection, door inter-lock protection, a2t temperature protection, etc. | ●               |
| 28 | Door Close Protection                   | When the door cannot be fully closed within pre-designated period, elevator tries to close the door again. If fail to close for more than 6 times, activate the alarm signal and set to faulty mode                       | ●               |
| 29 | Door status scanning function           | If landing error occurs, system can automatically scan all the landing door status and locate the fault immediately.  | ○               |
| 30 | Traction machine overheating protection | When the traction machine's operation temperature is higher than designated value, system alarms and stops operation.   | ●               |
| 31 | Braking protection                      | System can monitor brake actions via brake-arm switches, shutdown the system if error detected.   | ●               |
| 32 | Encoder signaling checking              | Controller is enable to detect encoder signal error or pulse loss, and activates alarms and stops running in the event of fault.  | ●               |
| 33 | Electrical overspeed protection         | By analyzing encoder's feed-back, controller determines whether the motor runs under overspeed and take the necessary protection measures to make safe  | ●               |
| 34 | Fireman Operation                       | When the fireman switch is turned on, the elevator returns to the designated floor and ready for fireman use.   | ○               |
| 35 | Fire emergency operation                | In the event of fire, the elevator is automatically brought to the designated floor where it remains inoperative for passenger safety.  | ◎ <sup>34</sup> |
| 36 | Fire Rated Landing Doors                | Special designed landing door is able to isolate the flame into hoistway or car for one or two hours  | ○               |
| 37 | Advance Opening                         | With advance door opening function, the elevator can open the car/landing door before stop and during landing zone low speed movement.  | ●               |
| 38 | Door Nudging                            | If the door is not close after one minute due to door safety signal or other reasons, elevator force to close the door in very slow speed   | ○               |
| 39 | Door open prolong button                | When this button on the car operating panel is pressed, the elevator doors stay open for a pre-set period of time.  | ○               |
| 40 | Car call cancellation                   | This function allows passenger to cancel the car call that is registered wrongly, by pressing the same button again. It thus eliminates unnecessary stops.  | ●               |
| 41 | Mischievous call cancellation           | When a large number of car calls have been registered for a small number of passengers, the calls are determined to be mischievous and are automatically cancelled upon responding to the next car call.                  | ●               |
| 42 | Overload bypass                         | When car is fully loaded, it will only responds to car calls and bypass all hall calls  | ○               |

| ID | Function                          | Description  | Spec           |
|----|-----------------------------------|--|----------------|
| 43 | Dual light hall call button       | Hall call button can illuminate in full and drizzle light. Before pressing, button illuminate drizzly; once pressed, button fully light up. Useful for dark environment.   | ●              |
| 44 | Door safety edge                  | Mechanical safety unit can be provided an installed to both sides of the car doors. If a passenger makes contact with the safety edge of the closing doors, the doors immediately re-open.   | ○              |
| 45 | Multi-beam door sensor            | The multi-beam sensors installed at the edge of the door will kept doors open when the sensor path is obstructed.  | ●              |
| 46 | 2-In-1 Safety Edge                | This safety device integrates the multi-beam and safety edge into one piece, provide double door protection  | ○              |
| 47 | 3D Multi-beam                     | This device detects passenger getting on or off the elevator, keeping the door open as long as passenger are in the area of detection.   | ○              |
| 48 | Car door lock                     | With car door lock, the riding passengers cannot force to open the car door if car is not in landing area, prevent passenger from dropping into hoistway or any other injuries.  | ○              |
| 49 | Arrival Gong                      | An electronic chime located on car top sounds just before the arrival of the elevator.   | ●              |
| 50 | Voice Synthesizer                 | Present standard message information is announced to passengers through a voice synthesizer. (Available in multiple languages)   | ○              |
| 51 | BGM speaker                       | A speaker for background music and public announcements for building   | ○              |
| 52 | Hall lantern                      | Hall lanterns can be provided instead of hall indicators. (for group control, hall lanterns will be provided as basic feature)   | ◎ <sup>3</sup> |
| 53 | VFD indicator                     | Vacuum fluorescent display (VFD) indicator to show the elevator status with maximally visual satisfaction.   | ●              |
| 54 | Monochrome indicator              | Dual color LCD indicator to show elevator status and other information in graphics.  | ○              |
| 55 | Horizontal Indicator              | Indicator with face plate is separately and horizontally placed at the top of entrance or transom instead of incorporated into hall call or COP.   | ○              |
| 56 | LED information display           | High density dot matrix LED display to show elevator running information and other customer specified information.   | ○              |
| 57 | True color LCD multimedia display | True colored display elevator running information, date/time, whether, advertisements and other customer specified information in video, audio and other multimedia formats. Build in USB interface to update display contents conveniently.               | ○              |
| 58 | Handicap COP arrangement          | For handicap elevator, all the COP buttons are grooved with Braille points, every button should be located within the certain range (normally from 0.9~1.1m according to local handicap requirements) or sub COP with Braille buttons should be presented. | ○              |
| 59 | Sub COP                           | Additional floor selection and door open/close buttons are located on the car left hand panel or left entrance panel.  | ○              |
| 60 | Through type entrance             | There are two doors inside the car, make the landing at different direction.   | ○              |
| 61 | Compulsory stop floor             | When elevator moving by, it stops at the compulsory-stop-floor and open door even without call registered for this floor.  | ○              |
| 62 | Floor lock out operation          | Specific service floors can be locked out as non-stop floor through system configuration.  | ○              |
| 63 | Power supply converter            | Convert the 3 phase power supply to the system acceptable range (AC380V-415V/50Hz),  | ○              |
| 64 | Automatic voltage regulator       | Steadize the power supply voltage fluctuation if the local voltage fluctuation greater than required value.  | ○              |

| ID | Function   | Description   | Spec           |
|----|--|---|----------------|
| 65 | Scheduled non-serving floor                        | A floor can be accessed within pre-set time period; if other than the period, the floor cannot be selected from car neither made any hall call.   | ○              |
| 66 | Parking Operation                                  | The elevator can be parked at the designated floor with a key switch  | ●              |
| 67 | Dual parking switches                              | There are two parking switches at different floor, each switch can be used to excise parking operation  | ○              |
| 68 | Scheduled startup / shutdown service               | Elevator automatically starts up and shuts down on the preset scheduled time.   | ●              |
| 69 | Standby position scheme                            | For group control system, two standby position schemes can be set. Once activated, elevators will be dispatched to the landing specified in the standby scheme.   | ◎ <sup>3</sup> |
| 70 | Upward rush hour schedule operation                | While in the pre-designated up-direction rush hour, every individual elevator in a group system can enter schedule operation mode once there are more than 3 car calls registered, such elevators automatically return to home floor after call-responses to reduce the up direction waiting time | ◎ <sup>3</sup> |
| 71 | Downward rush hour schedule operation              | While in the pre-designated down direction rush hour, every individual elevator in a group system can enter schedule operation mode once full load, such elevators automatically return to the highest floor after all call-responses to reduce the down direction waiting time                   | ◎ <sup>3</sup> |
| 72 | Emergency operation for power failure by generator | In the event of building power failure, the elevator can be operated by building standby generator to move it to the designated floor.  | ○              |
| 73 | Automatic rescue device for power failure          | In the event of power failure, the system automatically changes over to battery power to bring the elevator to the nearest floor.   | ○              |
| 74 | Earthquake emergency operation                     | When an earthquake is detected, the elevator will stop at the nearest floor.  | ○              |
| 75 | CWT safety protection                              | The elevator equips with CWT overspeed protection components  | ○              |
| 76 | Cipher code operation                              | By activating cipher, using car operating panel floor buttons, only restricted passengers can gain access to certain floors.  | ○              |
| 77 | Smart card access system                           | Controlled access to certain floors by means of smart cards. (Card reader system is provided and installed by third party, interfacing shall be by means of dry contacts)   | ○              |
| 78 | Closed-circuit TV                                  | For monitoring of movement inside the car by the security personnel. (camera, recorder cabling by others)   | ○              |
| 79 | Supervisory Panel                                  | Various supervisory operations, communication, and status monitoring can be provided through either the conventional LED. (Cabling done by others)  | ○              |
| 80 | PC Monitoring System                               | Computer is used to monitor various supervisory operations, communication, and status information with comprehensive and handy operations. (Computer supplied by others; cabling done by others)  | ○              |
| 81 | Wireless Communication                             | Monitoring centre can collect all elevators' running information via wireless method, carry out real time healthy analysis and arrange the necessary service.   | ○              |
| 82 | Elevator air-con                                   | Air-conditioner can be equipped into car cage   | ○              |
| 83 | Air cleaning devices                               | The elevator is able to equip with UV anti-bacteria device, air purifier device and oxygen generator device to create a clean and pleased riding environment.   | ○              |



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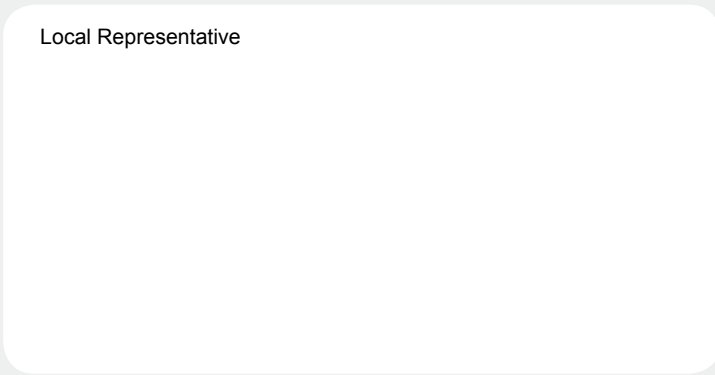
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Local Representative



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