OPERATING FEATURES
Full collective operation Registered car and hall calls are answered in the order in which the landings are reached.The direction of travel is established by the first registered car command or hall call.
Advanced Door Opening To improve performance time, the doors will begin opening as the car approaches a landing.
Firemens emergency operation in a group During a fire when the fireman 's switch is activated the car call of all cars and all calls are cancelled and the cars immediately returns to a pre determined floor. The designated fire lift then responds only to car calls which facilitates fire fighting and rescue operations.
Firemens emergency Return Upon activation of the fireman's switch or a key switch or the buildings smoke/fire sensors, all calls are cancelled, all cars return to a specified evacuation floor and the doors then open for the safe exit of the passengers. The activation of the Smoke/ fire alarm in any other floor shall bring the elevator to the Ground floor and the activation of Smoke/ Fire alarm in the ground floor shall bring all the elevators to another predetermined floor.
Safe landing operation If a car has stopped between floors due to some equipment malfunction, the controller checks the car and if its considered safe to move the car, the car will move to the nearest floor at a lower speed and the doors will open.
NO CORRECTION MODE : In the event of a power shut down, the elevator should resume normal operations without the car travelling to the bottom most floor which is called "correction mode".
Next landing operation If the Elevator do not open fully at destination floor, the doors close the car automatically moves to the next or nearest floor where the doors will open.
Top of Car Inspection The inspection operation switch and its push buttons and an emergency stopping device shall be placed on the car roof that they are readily accessible.
Emergency Brake release and manual Rescue operation In the event the elevator is stuck in between floors, a brake release device should be provided to open the brakes and allow the car to move in a controlled manner and bring it to level.

Hand operation In the event the elevator is stuck in between floors, a brake release device should be provided to open the brakes and allow the car to move in a controlled manner and bring it to level.
Drive Overheat Protection Self protection mode will be achieved if the temperature of the motor exceeds the preset value due to the heat made by motor itself or the high temperature in the environment. The car stops at the nearest floor, once the temperature falls down to normal, the car will recover.
Overload holding stop with indicator If the load exceeds the rated load, the sound signal will be given out by Speaker and 'OVERLOAD' will be displayed, the car door will not close, the elevator will not start. The overload condition is removed when the weight of the car falls below the rated load.
Over load Bypass When a car is loaded to a predetermined percentage of capacity, weight sensing devices are activated, causing the car to bypass further hall calls.
Door Hold Button Pressure on the Door Hold Button in the car operating panel opens the door, reverses the door and keeps the door open for a specified adjustable door hold time.
Door open/close button light Door open/close button will be highlighted if the buttons are pressed.
Separate Hall call & door times The time that an elevator door remains open after a stop defers between hall & carcalls. Generally more time is needed for a car to respond to hall calls.
Reopen with Hall Call Button operation Closing doors can be reopened by pressing the hall button corresponding to the travel direction of the car.
Door Load Detector When excessive door load has been detected while opening or closing, the doors immediately move in the reverse direction.
Repeated door -close Should an obstacle prevent the doors closing, the doors will repeatedly open and close until the object is removed.
Door Nudging If the doors are prevented from closing for a fixed period of time a buzzer sounds and the doors begin to close at slow speed.

Door time protection close If the car door does not close completely within an adjustable time after the door close command, the elevator will enter the mode: Remove itself from group operation, i.e. Extinguish hall or car direction lanterns. Hall calls will be assigned to other elevators in the group. open its doors and sound the buzzer in the car-operating panel. attempt to close the doors again after three unsuccessfull retries, the car will be shut down with its doors open and deenergized. Pending car calls will be cleared.
Automatic door speed control The system monitors the actual door load conditions at each floor and automatically adjust the door speed and torque accordingly.
Automatic door open time adjustment The time doors are open and will automatically be adjusted, depending on whether the stop was called from the hall or the car, to allow smooth boarding of passengers or loading of baggage.
Door sensor self diagnosis operation Failure of non-contact door sensors is checked automatically, and if a problem is diagnised, the door close timing is delayed and the closing speed is reduced to maintain elevator service and ensure passenger safety.
Car arrival chime On the top of the car, a bell ring will be given out when the car stops approaches at the destination floor.
Voice Guidance System Information on elevator service such as current floor or service direction will be heard by the passengers inside the car.
Car call erase Before the car starts the registration of a car or operation can be cancelled by double click of this button. After the car starts the registration cancelling will not be allowed.
False call cancelling If the number of registered car calls does not correspond to the car load, all calls are cancelled to avoid unnecessary stops.
Car Travel Time Evaluation Cars are allocated to hall calls by considering the number of car calls that will reduce passenger waiting time in each hall and the travel time of each car.
Automatic Hall call registration If one car cannot carry all waiting passengers because it is full, an other car will automatically be assigned for the remaining passengers.

Main Floor Parking An available car always parks on the main floor with the doors open to reduce the passenger waiting time.

Flashing Hall lanterns A Hall lantern which corresponds to a cars service direction Flashes to indicate that a car will soon arrive.

Immediate Prediction When a passenger has registered a hall call, the best car to respond to that call is immediately selected.

DCS elevators - The best possible lift is allocated and the same is displayed in DCS panel.

Continuity of service

A car experiencing trouble is automatically withdrawn from group operation to maintain an overall group performance.

Car Fan/Light shutoff- Automatic

If there are no calls for a specified period the car ventilation fan/lighting will automatically be turned off to conserve energy.

Terminal floor protection

When the lift arrives at the terminal floor, and the speed exceeds the imaginary speed line calculated from control system, the car would be forced to decelerate and stop at the terminal floor.

Regenerative Drive For energy conservation, power generated by a traction machine can be harnesed using regenerative drives and converted to electrical power to be used by other electrical systems in the building.

CCTV Cable

An additional FIBER OPTIC / Co-Axial / CAT-6E cable to be used for close circuit television monitoring. This system enables the security personnel to monitor the movement inside the elevator. this will be effective in preventing criminal and mischievous acts inside the elevator. CCTV System including external wiring will be by others.(Type of cable will depend on the end user requirement)

Automatic Rescue Device

This device is used for rescue operation in case of power shut down, it is powered by a rechargable battery when a sudden power cut happens, a sound signal will comfort the trapped passengers, then the car will move towards to the near floor, keep the door open, meanwhile trapped passengers can get out of the car.

Normal Operation after power resumption After power failure and ARD operation when the power supply is resumed, Elevator should continue to attend Car / Hall Calls without going to terminal floor for re setting the floor position reference.
Expert system and Fuzzy logic Artificial expert knowledge, which has been programmed using "expert system" and "fuzzy Logic" is applied to select the ideal operational rule which maximizes the efficiency of group control operations.
Psychological Waiting Time Evaluation Cars are allocated according to the predicted psychological waiting time for each hall call. The rules evaluating psychological waiting time are automatically changed in a timely manner in response to actual service conditions.
Distinction of Traffic Flow with Neural Networks Traffic flows in a building are constantly monitored using neural networks technology, and the optimum operational pattern, such as Morning up peak, Lunch time and evening down peak.
Dynamic Rule-Set Optimizer Traffic flows in a building are constantly predicted using neural networks technology, and an optimum rule-set for group control operations is selected through real-time simultations based on prediction results.
Peak Traffic Control A floor which temporarily has the heaviest traffic will be served with higher priority over other floors, but not to the extent that it interferes with the service to other floors.
Strategic Overall Spotting To reduce passenger waiting time, cars which have finished service are automatically directed to positions where they can respond to predicted hall calls as quickly as possible.
Energy saving operation (No. of Cars) To save energy , the number of service cars is automatically reduced to some extent but not so much that it adversely affects passenger waiting time.
Energy saving operation (Allocation control) When a call is registered, the system controls car assignment considering near - future traveling distance of all elevators to conserve the energy.

Potential free contacts for BMS interface The elevator is to be provided with a dry-contact interface. Customer can use it to monitor the elevator status and the signal to be indicated are :

a. Emergency stop switch in the cabin or any other elevator safety activated signal.
b. Operation of alarm bell signal.
c. Firemen's emergency operation signal.
d. Car position status.
e. Indications of faulty conditions.
f. Indications of equipment operation.
g. Run / Stop status

ACCESS CONTROL

Necessary dry contacts for shall be provided for interphase with access control system. The elevator vendor shall terminate these potential free contacts in the pit of every elevator. There shall be a over rider provided in the service cabinet of the specific elevator

EMERGENCY BATTERY OPERATED POWER SUPPLY FOR ALL LIFTS

A invertor based battery operated emergency power supply source should be provided on top of the cabin and connected to the emergency alarm, emergency light, and intercom. The required backup is for 1 hour

HIGH-DEFINITION LCD DISPLAY UNIT THAT HAS THE FOLLOWING FUNCTIONS :

a. Floor and travel directions of lift
b. User / time based messages
c. Lift status messages
d. Date / time
e. Time based pictures/videos
f. Floor directory messages
g. MPEG 1 and MPEG 4 play back
h. Portrait view
i.Remote configuration

THE MINIMUM VIEWING AREA SHOULD BE 228 MM W X 304 MM
H.CONTRAST RATIO OF 400:1 OPERATING ON 12 V DC THIS CAN BE USED AS A MEANS OF PROVIDING IN-HOUSE INFORMATION OR AS A MEANS OF PUBLIC RELATIONS THE COP TO INDICATE, SERVING FLOORS

Emergency Exit On car top An emergency trap door in the car roof to permit the rescue and evacuation of passengers. The exit should measure at least 0.50 M x 0.70 M

Bank Separation operation Hall buttons and the cars called by each button Can be divided into several groups for indipendent group control operation to serve special needs or different floors.
Artificial Intelligence Artificial expert knowledge which has been programmed using expert system and fuzzy logic is applied to select ideal operational rule which maximises the efficiency of group control operation.
Strategic Overall Assignment The system predicts near-future car positions and hall calls. Car assignment is performed considering not only current but also these predicted data.
Back-up operation for group control An operation by car controllers, which automatically starts to maintain elevator operation in the event that a micro processor or transmission line in the group controller has failed.
Earthquake Emergency Return In case of activation of primary and /or secondary wave scismic sensors, all cars stop at the nearsest floor and park there with doors open to feacilitate safe evacuation of passengers.. Earthquake sensors shall be supplied and installed by the elevator vendor.
Group indicator panel A panel installed inside the engineering room or anyother location inside the building helps to monitor each elevator status and operation status and operations using indicators. Scope includes wiring upto Chief Engineer's room.
VIP OPERATION A specified car is withdrawn from group control operation for vip service operation. When activated , the car responds only to the existing car calls, moves to the specified floor and parks there with the doors open. the car then respomds only to the car calls.