

SERNTA

since 1984

Elevator Modernization

Professional · Efficiency · Quality · Service ▶ ▶ ▶

Inherit from the German Technology of Hundred Years



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Enterprise Spirit

Safety

- Comprehensive Safety Protection Design
- Remote Monitoring System
- The Provision of the Reliable Lift Quality

User Friendly

Intelligence

- User Friendly Interface
- The Latest 32-bit Microprocessor
- Operation Record and Early Warning System

High Efficiency

Green

- VVVF Control System
- Highly Efficiency, Eco-Friendly Gearless Machine
- Energy Conservation

Safety

Green

Intelligence

Professional

Stability

Green

Intelligence

High Tech

Professional

Professional

- Over 30 years Industry Experience
- The Most Professional Evaluation and Suggestion



Malaysia JKKP MRL Certificate 15/127/682/6-55
Malaysia Professional Lift Manufacturer License 581894-K
TUV ISO 9001 Certificate since 1999
TUV ISO 14001 Certificate since 2010
Machine Roomless Lift with EN-81 standard Certificate No.11161024.SEEQU08

SERNTA

Inherit from the German Technology of Hundred Years

SERNTA Elevator Enterprise Co., Ltd. was established in 1984. For over 30 years, "Professional, Efficiency, Quality and Service" is always our management maxim. The company is devoted to the elevator Research & development, production, and marketing to both domestic and overseas markets. The implementation of ISO9001 and ISO14001 could help provide the customers the most safety, comfortable, convenient, and economical products and service.

The Company established the Malaysia Branch in 2002. Until now, SERNTA is still the only officially-registered Taiwan elevator brand in Malaysia. The company is in operation with new lift Installation, old lift modernization, and regular maintenance at the local market, ever acquiring Royal residential lift, government 20-stop apartment lifts, working lift for 102-meter-high Gantry crane, and anti-explosion freight lifts.

In 2009, the exporting department and Shanghai Branch were established, starting shipping the products to oversea markets including China, Korea, South-East Asia(Malaysia, Thailand, Cambodia, Singapore, Philippines, Vietnam, and Indonesia), South Asia(India, Sri Lanka), Mid-East Asia(Dubai, Abu Dhabi, Oman, Qatar, Egypt, Turkey, Kurwait, Iran), Eurpoe(Germany, Sweden, UK, Spain, France, Nederland, Republic of Macedonia, and Romania), Africa(Burkina Faso), Central and South America(Brazil, Argentina, Paraguay, Mexico, the Dominican Republic, Costa Rica, Ecuador, Peru, and Oceania(Australia).



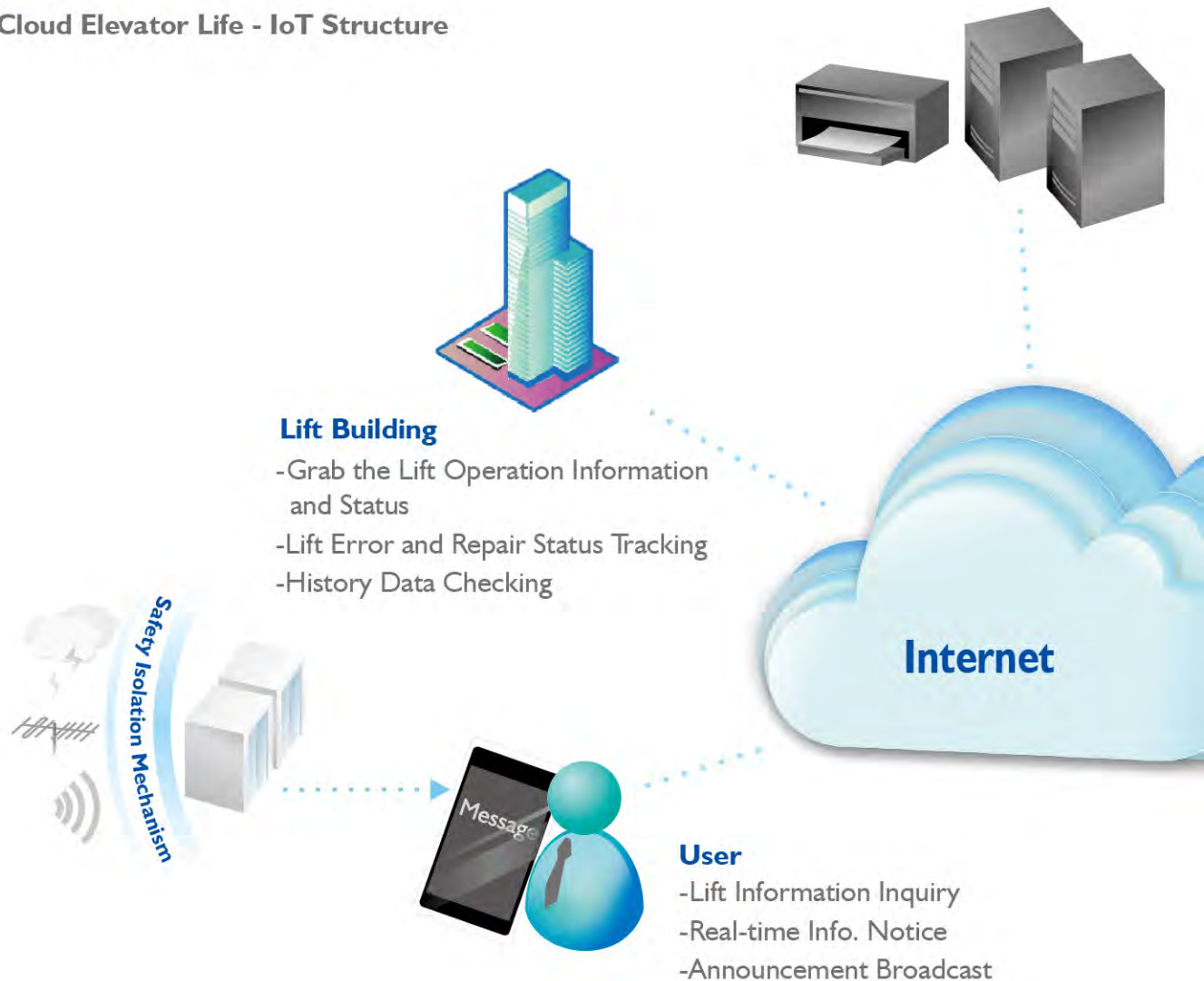
History

2019.10	Participated in the 6th-time Interlift Exhibition in Germany
2019.08	The subsidiary, named as SERNTA Elevator Philippines Inc., was found in Manila, Philippines
2019.07	Obtained the modernization project with 47-Stop-4-Grouping lifts in Taiwan
2019.07	10th anniversary for China Shanghai Subsidiary
2018.01	As the Top 15 elevator company in Taiwan
2017.05	Launched the lift product with the special gearless machine for narrow hoistway requirement
2017.01	Obtained the MRL Certificate from the Malaysia government
2016.10	Completed the lift construction for the Southeast Asia highest cranes in Malaysia
2016.03	Obtained the 3-ton anti-explosive lift construction project for Eternal Material chemical factory in Malaysia
2016.01	Certified with European Safety Certificate of EN-81 for Machine-Roomless Lift
2015.11	Technical Cooperation with Montanari, Italy
2015.08	Completed the new lift construction with 8 escalators and 9 lifts for one large restaurant
2015.04	Acquired the modernization project for the largest apartment complex in Southern Taiwan with 66 lifts
2014.07	30th anniversary of SERNTA Elevator Co., Ltd. in Taiwan
2013.09	Accomplished the Anti-Explosive lifts for Chi-Mei Plastic Factory
2012.12	SERNTA control system was qualified with the Korean functional and safety certificate
2012.06	10th anniversary for Malaysia company
2012.05	Cooperate with Germany Ziehl-Abegg for product implementation
2011.11	Gained the Europe CE EN-81 safety certificate for SERNTA control system
2010.10	Certified with TUV ISO 14001
2010.05	Obtained the new lift construction of the apartment complex with 20 floors in Malaysia
2009.10	1st time to participate in the international lift exhibition in Germany, China and other countries
2009.07	The subsidiary in Shanghai, China was founded
2009.02	Completed the new lift construction of the Sudan's royal house in Malaysia
2008.11	Acquired the renewal construction of the 34-floor high-speed lifts in Kuala Lumpur, Malaysia
2008.09	Obtained the new lift construction of Thai Oil company
2008.07	The company successfully registered as the professional lift manufacturer in Malaysia, which is the first Taiwan lift brand
2006.10	Qualified by the Taiwan biggest elevator company, Yungtay Engineering, as the official home lift subcontractor
2004.08	Launched the gearless MRL elevator product
2002.07	Certified with TUV ISO 9001
2002.06	The Subsidiary in Malaysia, SERNTA Elevator (M) Sdn. Bhd., was established.
1984.07	SERNTA Elevator Engineering Co., Ltd is established.



Smart Lift IoT

iLift Cloud Elevator Life - IoT Structure



The Purpose of iLift Elevator IoT

- ◎ The Integration of Network Communication Technique Platform to Enhance the Lift Safety, Convenience, and Service Quality for Users

iLift IoT Service Solution:

- ◎ Remote Real-Time Monitoring and Quality Statistics
- ◎ Improvement of Maintenance Service Management
- ◎ Complete Inspection, Record, and Tracking for Lift Operation Data
- ◎ Voice or Visual Communication with the Passenger inside the Lift Cabin
- ◎ Realization of the Lift Information Inquiry, Editing, and Data Management by Customers
- ◎ Statistics and Analysis of Lift Breakdown
- ◎ Reminding Notice and Schedule Arrangement of Regular Inspection Work
- ◎ Lift Breakdown Status Secure, Notice, and Tracking at the First Moment
- ◎ Active Broadcasting and Transmission of Announcement and Information

Server/Database Storage

- Collection of the Lift Operation Information
- Cloud Computing Analysis / Error Record Tracking
- Lift Operation Record
- Information Broadcast and Storage Center



Lift Company

- Statistics and Analysis of Lift Operation Data
- Statistics, Analysis, and Tracking of Error Message
- Lift Operation History
- Active Reaction in Lift Maintenance and Service



Building Management

- Security Control
- Lift Operation History
- Active Maintenance and Calling Repair
- Remote Update and Transmission of Announcement

Safety Requirement of Lift Operation Monitoring System

- ⊙ Collection of Lift Operation Data
- ⊙ Collection and Broadcast of Image or Visual Information
- ⊙ Direct Bi-directional Communication
- ⊙ History Information Record of Lift Breakdown

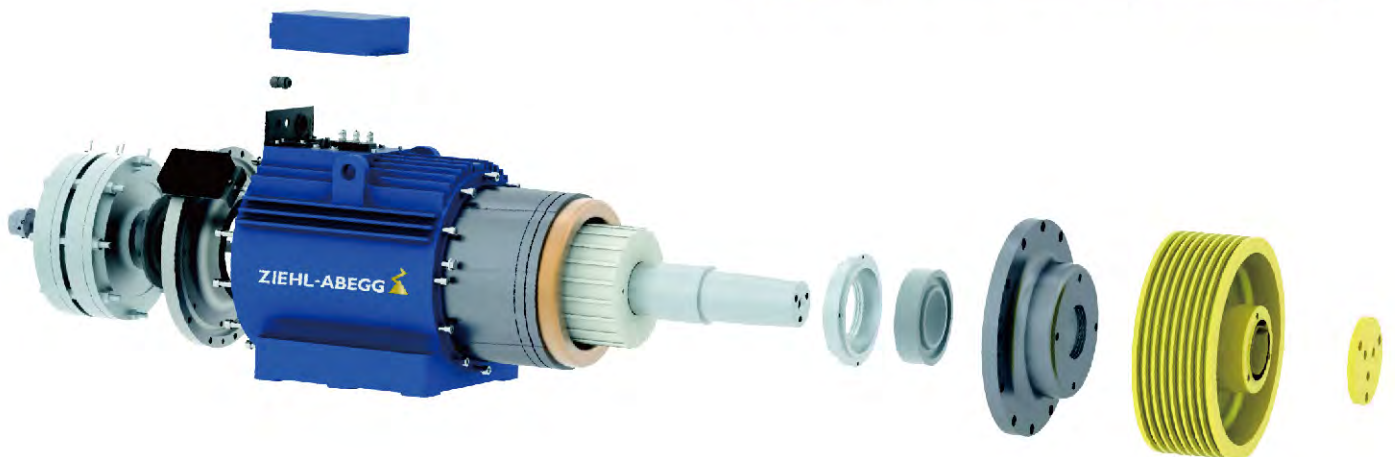
Lift Safety Operation Monitoring Center

- ⊙ Voice and Visual Communication while Lift Breakdown
- ⊙ Active Message Notice
- ⊙ Emergency Reaction while Lift Mantrap or Breakdown Notice

ZIEHL-ABEGG Germany Gearless Traction Machine

Higher Efficiency, Less Vibration, Less Noise, and Higher Eco-Friendly without Oil Pollution

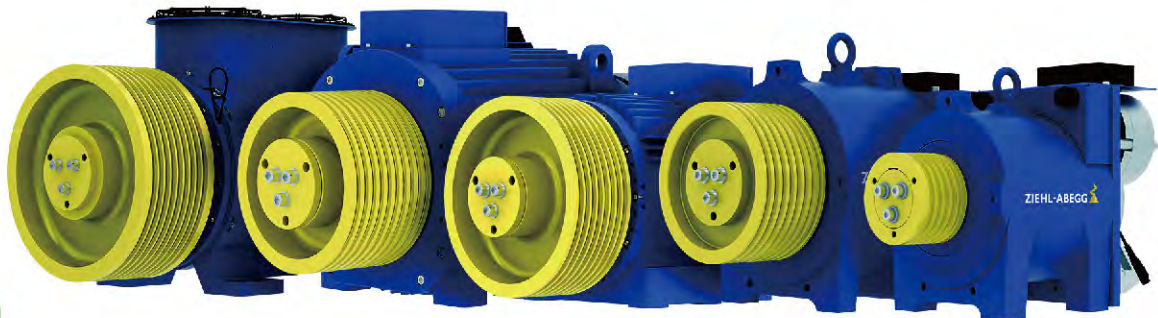
ZIEHL-ABEGG, founded in 1910 with over one-hundred-year history, is famed with its high quality products and as the leader in the areas of ventilation systems, control technology, drive technology, and automotive.





ZETATOP, ZAdisc, and ZAsyn are the different model names of gearless traction machine. It combines with all the advantages of gearless machine, including the simple installation, high energy efficiency, excellent control, extreme low noise, and compact design to be suited for use in elevators with or without a machine room.

The gearless machines could provide steady operation and outstanding comfortability.



With Mayr brake inside with TUV safety certificate, the type-tested brake can be used as a safety device to prevent uncontrolled upwards cabin movement and unintended cabin movement from the landing.



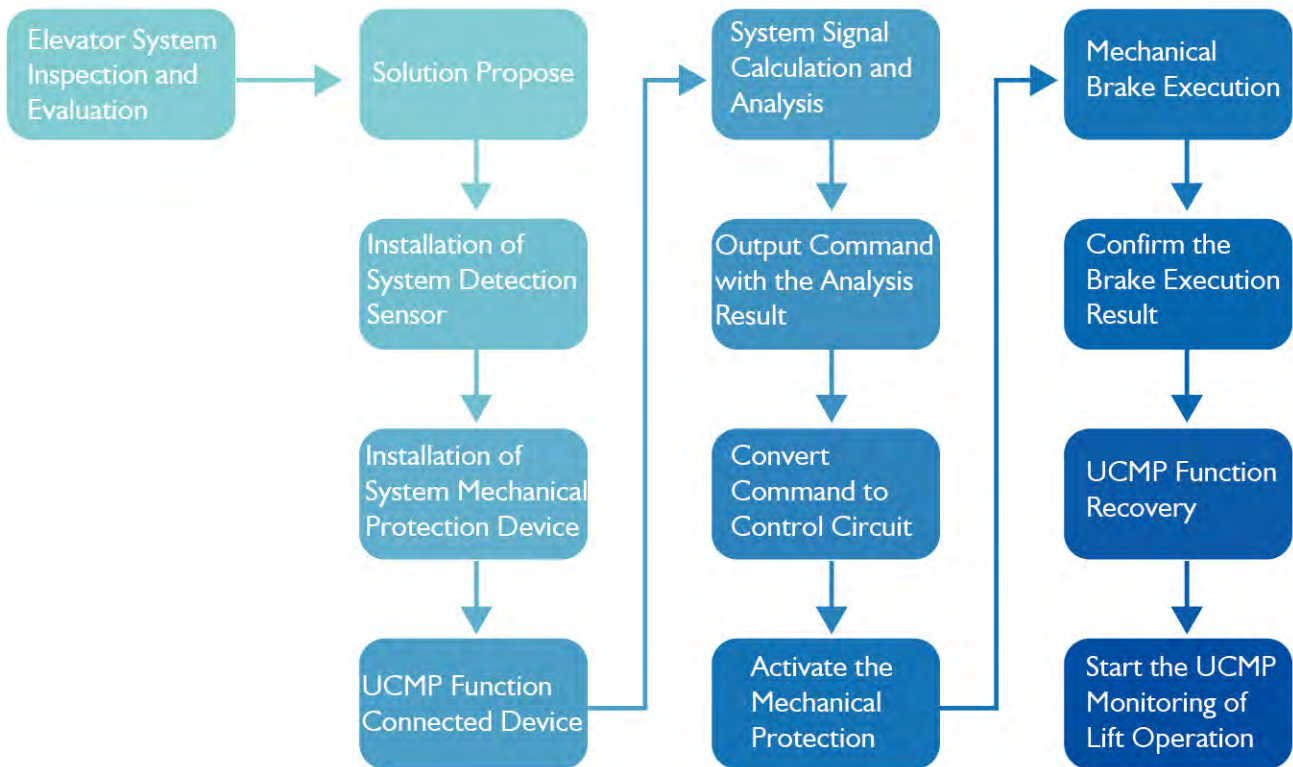
Ziehl-Abegg's research & development center in Germany master not only the technique of motor design and production but also the control technique of motor driving and energy. It announced the ZAdyn series inverter and ZAreC series power feedback unit to popularize the motor drive technology in the boost of the overall energy efficiency and continuity.



UCMP Safety Protection Function

UCMP (Unintended Car Movement Protection) means that while the cabin in unintended movement situation, the lift system would proceed the safety protection. It comes from the European lift standard EN81-1:1998. This function requirement is to enhance the lift safety protection. If the cabin is moving upward or downward while the car door is open, the UCMP safety system could activate the protection mechanism to stop the car in securing the passenger's safety.

UCMP Solution Plan



Control System

- ⊙ Elevator System Status Detection
- ⊙ Elevator Door Open Status Detection
- ⊙ Elevator Operation Position Detection
- ⊙ Elevator Real-time Operation Information Detection
- ⊙ Elevator Brake Status Detection
- ⊙ Elevator Operation Speed Detection

Protection Function

- ⊙ Protection Execution of the Traction Machine Brake System
- ⊙ Protection Execution of the Wire Rope Gripper
- ⊙ Protection Execution of Bi-Direction Safety Gear

Brake System

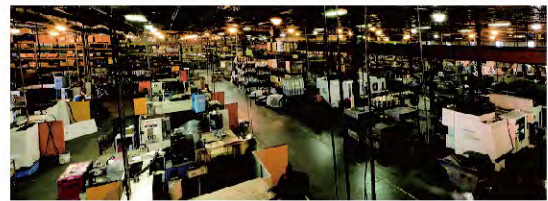
- ⊙ Electrical Brake Function
- ⊙ Motor Mechanical Brake Device
- ⊙ Wire Rope Gripper Device
- ⊙ Bi-Direction Safety Gear



Hollister-Whitney

ELEVATOR CORPORATION

Hollister-Whitney, founded in 1899 in Illinois of United States, is a major supplier of elevator equipment worldwide. The foundation for undeniable quality began at Hollister-Whitney nearly 120 years ago and continues to dictate the products and services today. The deep-rooted focus on durability, longevity and serviceability upholds H-W's reputation for providing the most reliable elevator equipment available.

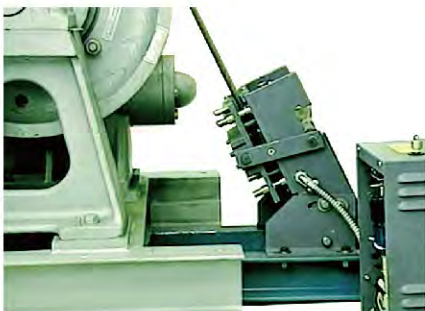


HW
UCMP

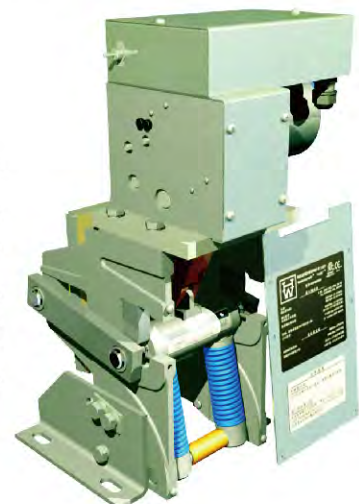
HW provides the extensive line of elevator hoist machines for gearless and geared applications. The product line also consists of elevator platforms, slings, safeties, guides, governors, buffers, equipment guarding, and the patented Rope Gripper systems.

Major Functions of HW Rope Gripper

- Prevention of the Elevator Cabin Over-Speed Upward or Downward Movement
- Prevention of Cabin Unintended Movement
- Prevention of the Sliding between the Main Sheave and Wire Ropes



"Hollister-Whitney Rope Gripper®" (U.S. Patent #5,228,540) is designed with the powerful grip force to grip the elevator wire ropes while the cabin is overspeeding or unintended moving while the door is open. It could be easily installed at each kind of platform. Even if the supply power is gone, the device protection would be still triggered in the prevention of the lift cabin unintended moving to provide the passengers a reliable safety protection.



Energy Regeneration Device:



Operating Principle of Energy Regeneration:

While the elevator is under operation, the traction machine would be under two different modes. One is the electrical motor consuming the energy and one is the generator generating the power. While under the generator mode, the inverter could convert the mechanical and kinetic energy to electrical power. Traditionally, the lift control system would install one set of resistor device to discharge the generated power to heat. Utilizing the latest technique, the control system could be installed with one energy regenerator device to convert the generated power of the motor as the AC power into the building power network to provide the electric energy to the use of other devices. It would reduce the energy consuming of the whole building.

The Benefit Analysis of Energy Saving

The energy saving effect of regeneration unit is related to the lift power, system design, and balanced system. Some circumstances below could cause in better energy saving effectiveness:

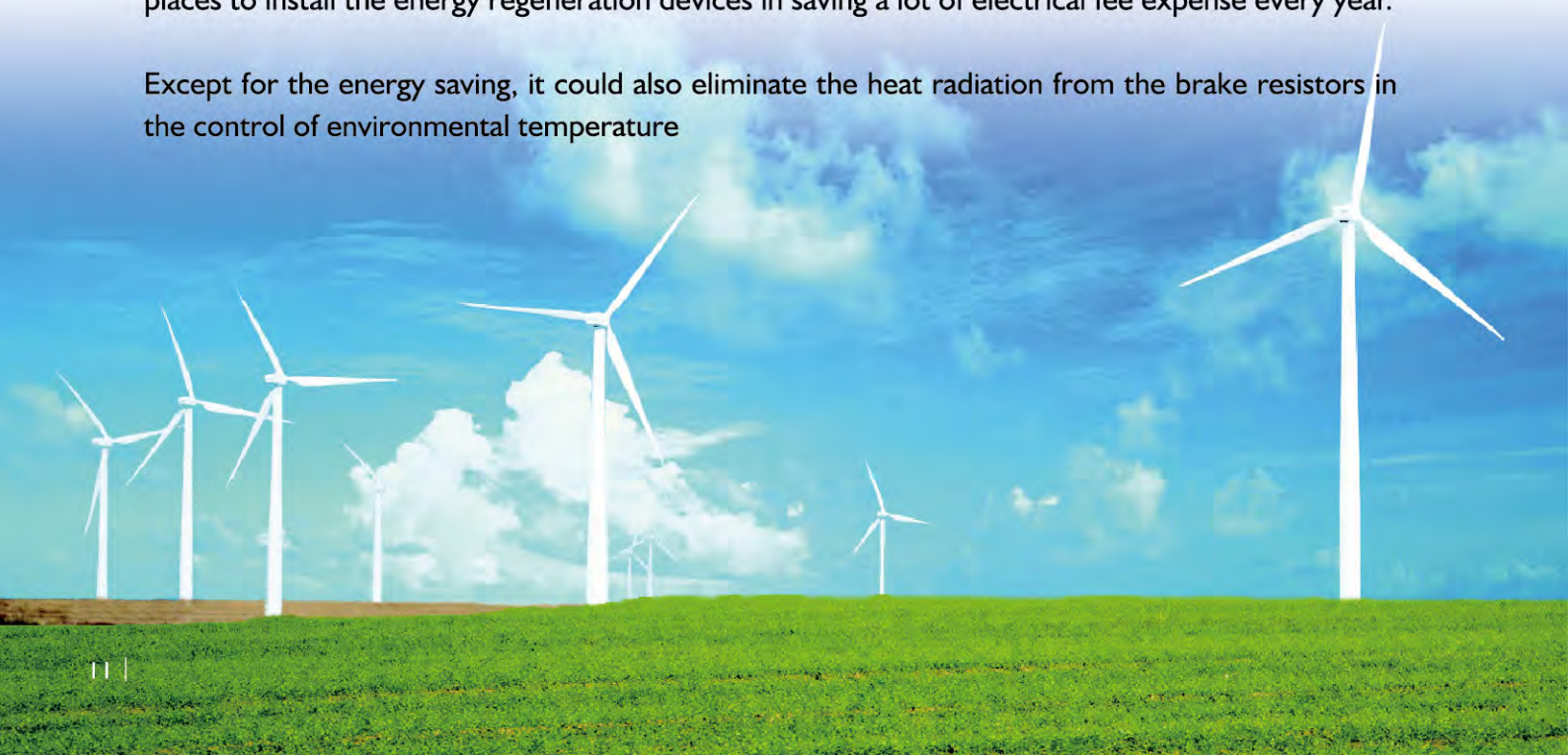
- a. The lifts with the higher travel distance, the more frequent usage, and the more mechanical potential energy generation
- b. The newly-installed lifts with higher mechanical inertia
- c. The higher-speed lifts with higher mechanical kinetic energy
- d. The higher-transportation-flow lifts with the higher usage frequency
- e. The higher-capacity lifts with the higher generation of mechanical kinetic energy



Environment Friendly and Expenditure Reduction

Therefore, hospitals, office buildings, and residential buildings would be the best appropriate places to install the energy regeneration devices in saving a lot of electrical fee expense every year.

Except for the energy saving, it could also eliminate the heat radiation from the brake resistors in the control of environmental temperature



SERNTA provide the optional selection for RST inverters made in Germany to provide the customers higher-quality and safer service.

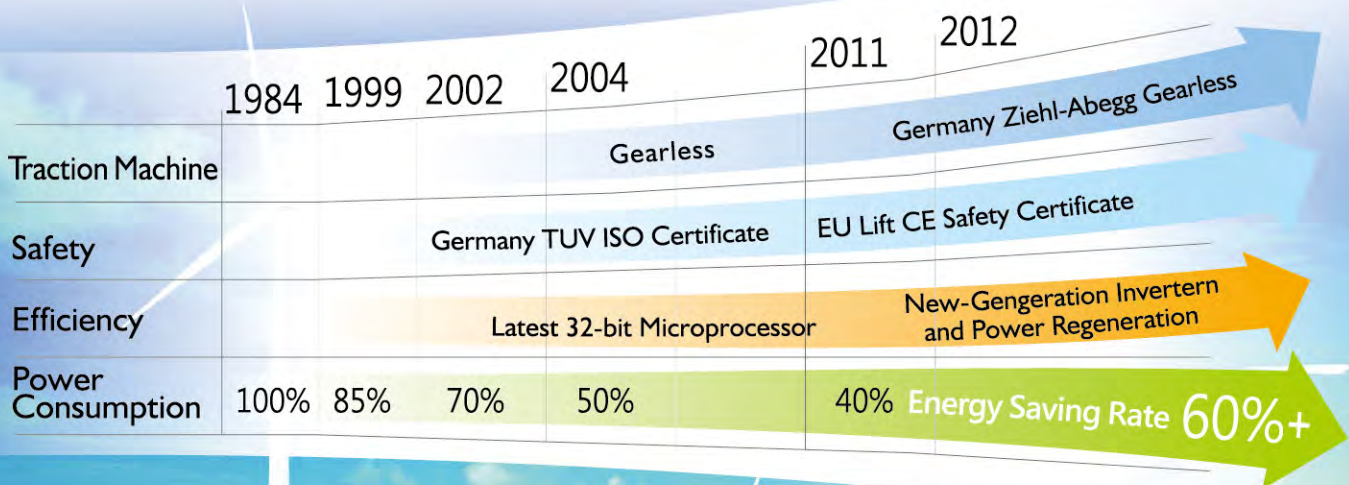
RST Elektronik GMBH is well reputed by the professionals with the provision of lift control system in the global market. The products, with CE certificate and more advanced technology, could fulfill the customization demand in the provision of higher quality.



The latest VVVF Inverter

The VVVF-inverter range meets all typical requirements of the elevator market. The intuitive operating concept and robust dimensioning impress at every level. In combination with the IMC-2 controller, the customer enjoy an optimally matched package with "Made in Germany" quality.

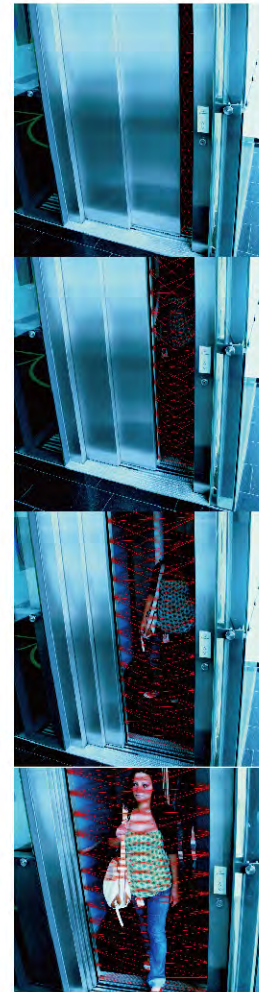
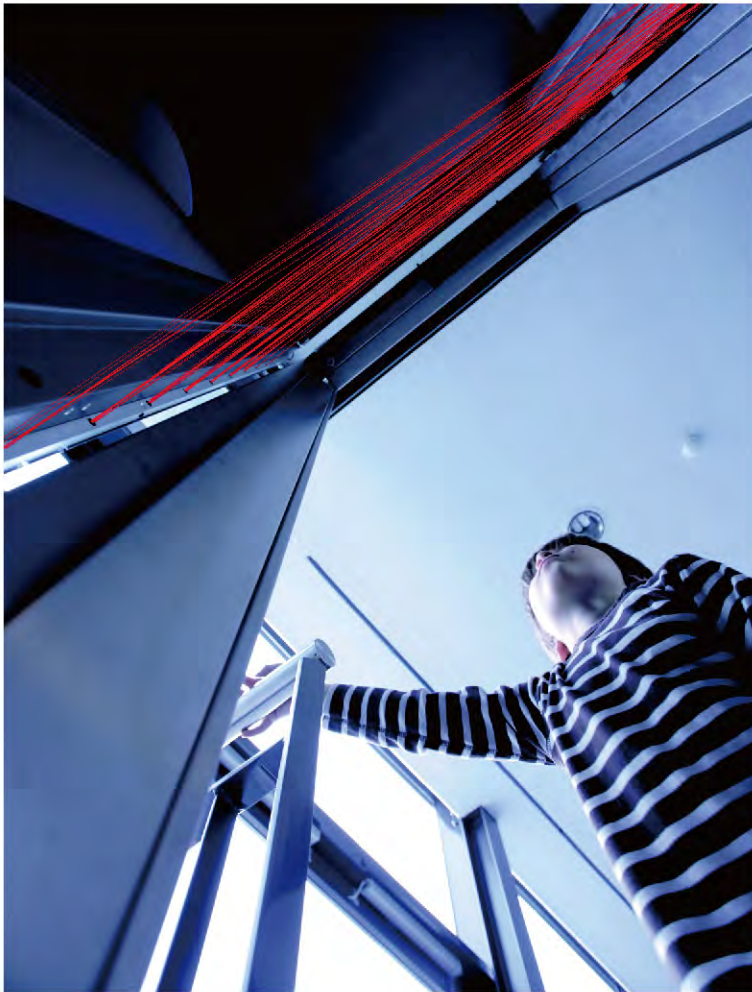
RST Inverter
Energy Regeneration Device



Found in 1986, CEDES develops intelligent, safe sensor solutions. The company combine pioneering spirit with Swiss quality to strengthen our customers' powers of innovation around the globe.

High-Performance Safety Light Curtain

The latest version of the light curtain meets every requirement under EN 81-20. Its criss-cross beams, which remain active up to complete elevator door closure, offer a major increase in elevator door safeguarding.



cegard/Mini-CC Technical data

Category	Parameter	Value	Category	Parameter	Value
General data	Order code	6001-100	Detection codes and detection conditions	Beam height	2.1 m
	Order code with cable	6001-100-001		Beam width	40 mm
	Order code with cable and mounting brackets	6001-100-002		Beam spacing	50 mm
Technical data	Beam diameter	3 mm	Light source	LED	Red, 635 nm
	Beam spacing	50 mm		Beam intensity	100 mW
	Beam length	2.1 m		Beam divergence	0.5°
Performance	Response time	10 ms	Safety features	Fail-safe	Yes
	Response time	10 ms		Fail-safe	Yes
	Response time	10 ms		Fail-safe	Yes
Safety	Response time	10 ms	Safety features	Fail-safe	Yes
	Response time	10 ms		Fail-safe	Yes
	Response time	10 ms		Fail-safe	Yes

- CEDES is an ISO 9001:2008 certified company.
- CEDES is a member of the Swiss Quality Institute (SQI) and the Swiss Quality Institute (SQI).
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Montanari Giulio & C.

ITALY



Since its establishment in 1970, the significant investment in the creation of innovative products and in optimizing the enterprise technology has made Montanari Giulio & C. a cutting edge company, with a well-recognized image but evolving, whose quality, service and reliability are recognized and appreciated in more than 80 countries.



Elevator Brake

Found in 1897 by Mr. Christian Mayr in Germany, mayr® power transmission provides optimum and tested quality: All products are rigorously tested on calibrated test stands and adjusted precisely to the requested values to provide the products with the best safety, reliability and innovation.



ROBA®-duplostop®



ROBA®-twinstop®



ROBA-stop®-silenzio®

Gearless, Elevator Brake
Wire Rope
Light Curtain

Wire Rope Safe Standard

The selection standard of the elevator wire rope need to comply with all the requirements below.

The Scrap standard of Wire Rope

The elevator wire rope would be eventually broken by the corrosion, wear or fatigue even if it is under good maintenance or used properly

According to the criteria of ISO4344 and DIN EN12385, the wire rope is needed to be discarded immediately with any mechanical damage and bending fatigue or while the rope diameter is less than 6% of original design.



Highly Abrasion Resistance

Highly Anti-fatigue

Less Extension

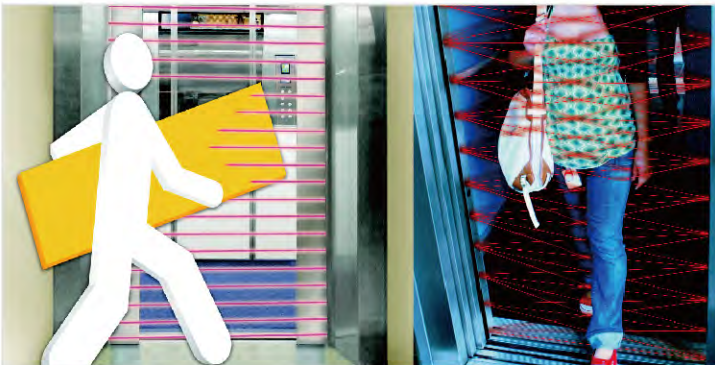


System Feature



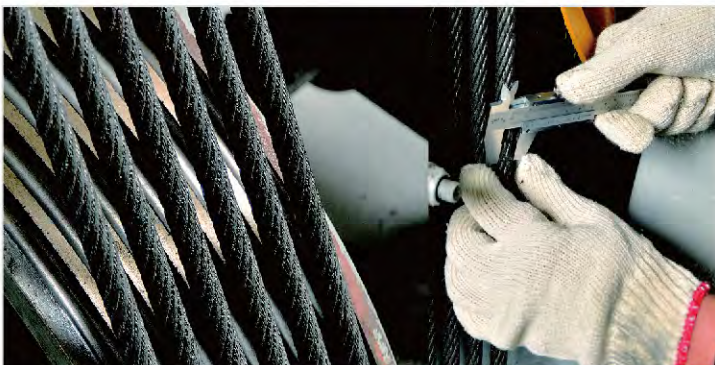
France Schneider No-Fuse Brake and Electrical Contactor

Schneider Electric components from France, and is authenticated by ECM. It is much safer than the others.



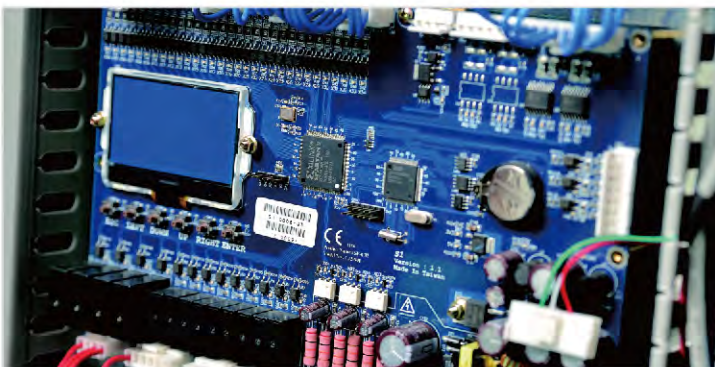
Swiss CEDES Safety Light Curtain

Incorporated with high-end safety light curtain design, Sernta always consider the users'safety as the first priority. The light curtain could continuously proceed the detection from different angles in protecting the people and the goods.



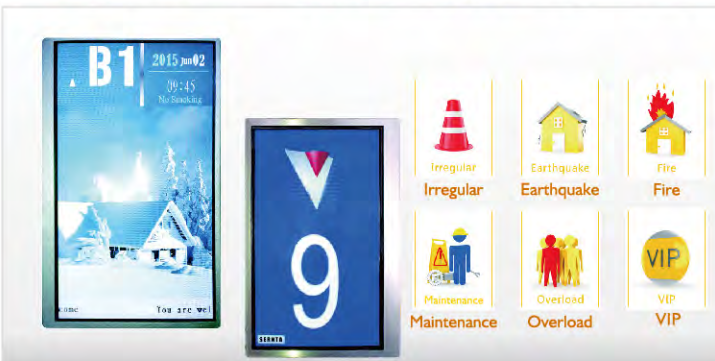
Germany/ Japanese Steel Wire Rope

- ▲ Toughness
- ▲ Extend the using time limit



Latest 32-bit Elevator Control System

The 32-bit control system is qualified by CE(EN-81) Safety Authentication.



Advanced True-Color TFT LCD Display

- ▲ Real-Time Elevator Status Display
- ▲ Button Input and registering output
- ▲ Landing lantern output
- ▲ Graph message design
- ▲ Able to be collocated with COP-A button Board

Comparison with other Manufacturer

Item	SERNTA	Traditional	SERNTA Advantage
1 Traction Machine	<ol style="list-style-type: none"> Germany Ziehl-Abegg Gearless Machine with Mayr Brake System Italy Montanari Gear or Gearless Machine 	<ol style="list-style-type: none"> Mostly Gear Machine 	<ol style="list-style-type: none"> High Efficiency for Power Consumption Up-Direction Over-Speed Protection Highly Reliability and Longer Life Cycle
2 Control System	<ol style="list-style-type: none"> Latest 32-Bit Microprocessor 	<ol style="list-style-type: none"> PLC Controller 8-Bit Microprocessor No Safety Certificate 	<ol style="list-style-type: none"> CE Safety Certificate 32-bit Microprocessor Control Unit High-Speed Serial Communication Interface
3 Electrical Component	France Schneider	Less Reliability Brand	<ol style="list-style-type: none"> CE Safety Certificate Schneider Electric is a leading company in the digital transformation of energy management and automation.
4 Safety Light Curtain	<ol style="list-style-type: none"> CE Safety Certificate Schneider Electric is a leading company in the digital transformation of energy management and automation. 	<ol style="list-style-type: none"> Optional Product Less Safety and Funtional 	<ol style="list-style-type: none"> Conformity with the standard of EN81-20 Detection from different angles to prevent from the accident CEDES is a global leader in optical sensors utilizing active infrared technology and image processing.
5 Wire Rope	Germany/Japanese Wire Rope	Unknown	<ol style="list-style-type: none"> With the characteristics of highly anti-fatigue, highly abrasion resistance and less Extension for longer life cycle
6 Floor Indicator	True-Color TFT LCD Display	LED Dot Matrix	<ol style="list-style-type: none"> Modern Design Animation and Graphics Demonstration
7 Lead Time	Controller: 1 months Whole Lift: 2 months	Controller: 6~8 months Whole Lift: 10~15 months	The most efficiency to Satisfy the Customer Urgent Demand
11 Warranty	36 months	12 months	The best warranty and after-sale service
12 IOT	iLift Cloud IOT	N/A	<ol style="list-style-type: none"> Remote Monitoring and Control Upgrading Maintenance Service Lift Break-Down Prevention, Analysis and Statistics

Timing and Benefits of Lift Modernization

Age over 15 years

No Spare Parts to Repair

Vibration while Starting and Landing

High Power Consumption

1. The lift cycle of elevator control system is about 15~20 years. It would be affected by the dust, Rusty, and Moisture to cause in malfunction, such as the mantrap or other safety concern.
2. The elevator components are old: Old-look device affect the building image and the real estate value.
3. Serious Vibration while Elevator Starting or Stopping: Uncomfortable Elevator Taking Experience with Scary
4. The Leveling Gap between the floor and the Cabin is too large. Passengers would be easy to be tripped.
5. Most Components are Discontinued. The elevators are difficult to maintain, frequently broken down, and need long time to repair.
6. Higher Power Consumption and Worse Operation Efficiency for older-version Elevator System.
7. Old Lift would has less function about safety and conformity design Duo to out-of-date technology

Safety & Conformity Upgrading

Lift Extension

Quality Improvement

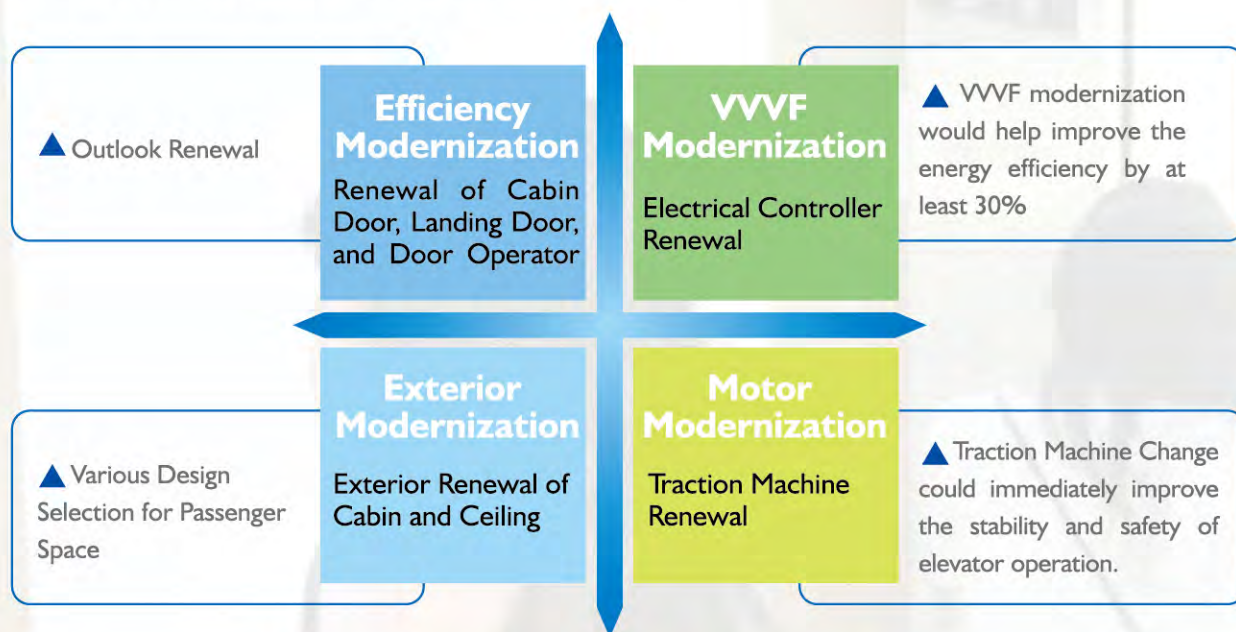


Benefits of Lift Modernization:

1. Modernization by stages and retention of the existing steel structure could help minimize the expense.
2. No need to destroy the decoration and floor with less dust generation.
3. The shortest construction period could have least impact on the daily operation of the building.
4. Less waste would be generated and low-noise construction would not disturb the residents' living
5. Elevator modernization would increase the building value, living convenience, and safety.

Selections of Elevator Modernization

- Renewal by stages according to the customer demand



Safety from Elevator Modernization Protection from Monthly Maintenance

Customer Benefit by Lift Modernization

1. Enhancement of the lift safety and conformity
2. Achievement of the Energy Saving and Noise Lowering Down
3. Life Extension and Quality Improvement of Elevator
4. More Economical Solution than the Replacement of a New Elevator
5. Refreshment for all the Passengers, Residents, Buildings after the Completion of the Elevator Modernization



Selections of Elevator Modernization

- Renewal of Electrical Control System - **VVVF Modernization**
It could improve the energy efficiency with at least 30% by the VVVF motor control and achieve the elevator taking experience with stability and conformity
- Renewal of Cabin Door, Landing Door, and Door Operator - **Efficiency Modernization**
It could provide the refreshing door outfit with smooth, fast, and quiet door opening and closing.
- Exterior Renewal of Cabin, Ceiling, and Interior Decoration - **Exterior Modernization**
With various exterior design, it would provide a cabin space with brightness and elegance
- Traction Machine Renewal - **Motor Modernization**
The change of the traction machine could enhance the stable elevator taking experience and get better performance of power consumption

The Construction of Elevator Modernization is to extend the elevator usage life cycle.

Renewal

Old to New with Modern Design/Power Savings/ Less Breakdown, More Safety, and More Comfortability

Before



Traction Machine



After



Machine Room



Carbin



Moder-nization

Control System Renewal → Improve the Elevator Safety Function and Performance



- ↑ Enhance Operation Performance
- ↑ Save Power Consumption and Lower the Noise
- ↑ Ensure Elevator Safety

Control System



Traction Machine

Lessen the Noise and Increase the Efficiency



Renew &
Modernization

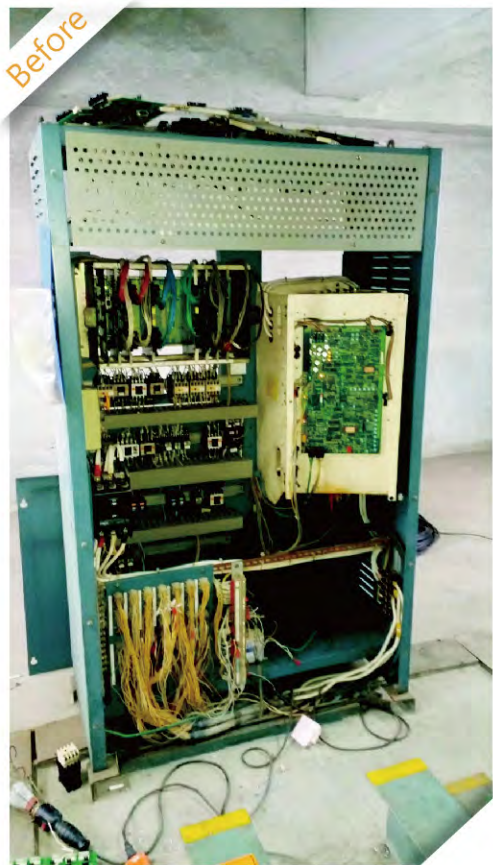
Car Top Area

Enhance the Inspection effectiveness with the Latest Circuit Design



Control Cabinet

High Performance VVVF Control System to Upgrade the Efficiency and Safety



Operation Panel

Upgraded User Interface enhance the Appearance of the Building

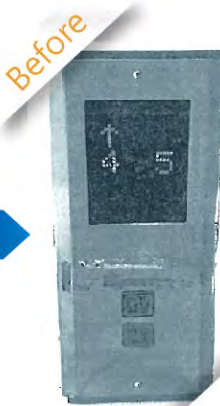
COP



Renew & Modernization

Operation Panel

HOP



WCOP



Cabin & Ceiling

Quick Installation and Economical, and Significantly Increase the Brightness and Modernization



Super-Wide LCD Display

Feature

- ⊙ The LCD display with special-dimension design could not only provide multimedia information but also eliminate the disadvantages of less information showed, minor font factor, and space imitation in building a more creative application space.

Function

- ⊙ Elevator Real-Time Indication
- ⊙ Broadcast High-Resolution Multimedia
- ⊙ Dynamic Slide Show of Pictures
- ⊙ Scrolling Text message
- ⊙ Display Screen Cutting Allocation
- ⊙ More Real-Time Information Update after the Internet Connection



Multi Touch



Media Player

Dynamic Pictures

Real-time Elevator Status Display



Scrolling Text Display

Color LCD Display

Feature

- ⊙ Real-Time Lift Status
- ⊙ Graphical Message Design
- ⊙ 3D Dynamic-Effect Display
- ⊙ Background Customization
- ⊙ Photo Slideshow with over 100 stored Pictures

Real-time Elevator Status Display



Date/Time/Temperature display

Over 100 Background Pictures

Company Logo

Scrolling Text Display

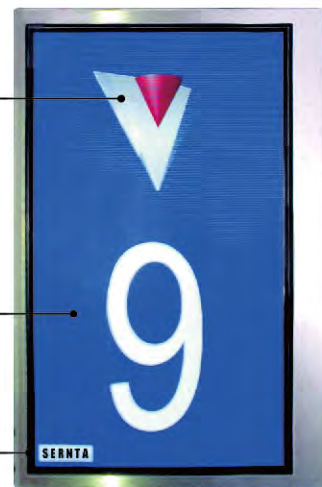
Graph Design



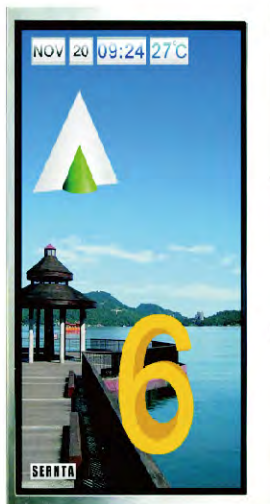
3D dynamic display

Real-Time Elevator Status Display

Company Logo



LCI-F-E1



LCI-F-E2



LCI-F-E2

LCD Display

Car Operation Panel



COP-F-11-C02

7" LCD Panel (Folded)



MLD-A-HI

Super-Wide 28" /38" LCD Display

Hall Indicator



HOP-E-05

7" LCD Display

Hall Operation Panel



HOP-F-03
4.3" LCD HOP
Handicapped



HOP-F-04
4.3" LCD HOP
Handicapped Union Control



HOP-C-06

Hall Lantern



HOP-B-06

Button Panel



HOP-C-02

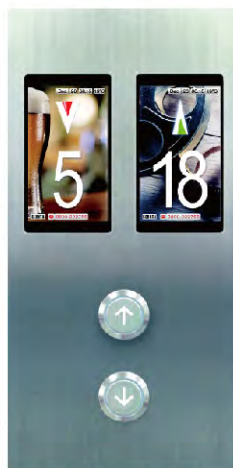
Operation Panel



HOP-F-11-C02
4.3" LCD HOP(Folded)



HOP-F-01-C02
4.3" LCD HOP



HOP-F-02-C02
4.3" LCD HOP
Union Control



COP-F-02
Handicapped 4.3" LCD HOP

Function Description of Lift Control System

Basic Operation Function

No	Function	Operation Description
1	Automatic Operation	<ul style="list-style-type: none"> ⊙ Door auto-open/close while landing ⊙ Door Open Extension ⊙ Manual door close in advance ⊙ Auto car call registered (Anti-Frolic) Registered call cancel) ⊙ Auto answering hall call of heading direction
2	Inspection Operation	<ul style="list-style-type: none"> ⊙ System maintenance in inspection mode ⊙ Able to drive the lift up/down by pressing the button ⊙ Lift could not be operated with high speed in inspection mode
3	Attendant Operation	<ul style="list-style-type: none"> ⊙ Door auto-open while landing ⊙ Door manually closed by attendant ⊙ Car call automatically registered ⊙ Auto answering hall calls of heading direction ⊙ The attendant could control the lift heading direction accordingly
4	VIP Operation	<ul style="list-style-type: none"> ⊙ To ignore and cancel all hall calls while switching to VIP in attendant mode
5	Fireman Recall Operation	<p>Fireman Recall Switch</p> <ul style="list-style-type: none"> ⊙ System cancels all registered calls ⊙ Lift returns to the base floor, open the door, and stop operation. ⊙ The lights and fans would auto turn off ⊙ If the lift is heading to the opposite direction, it will land at the nearest floor and then return to the base floor directly without door-opening
6	1 st Fireman Emergency Operation	<ul style="list-style-type: none"> ⊙ After registering the desired floor, the user should press the door-close button continuously till the door is completely closed, or the door would automatically re-open. ⊙ After landing the desired floor, the user should continuously press the door-open button till the door is completely open, or the door would automatically re-close.
7	2 nd Fireman Emergency Operation	<ul style="list-style-type: none"> ⊙ After registering the desired floor, the elevator would start to move. ⊙ The fire elevator could be operated even if the door safety is broken down.
8	Power-On Test Operation	<ul style="list-style-type: none"> ⊙ After the system power on, the elevator would execute the door open and close test once if it stops at the door-open zone.
9	Door Auto-Open while Landing	<ul style="list-style-type: none"> ⊙ While the elevator up / down stop at the door-open zone, the door would automatically open.
10	Open Door by Car Call	<ul style="list-style-type: none"> ⊙ While the elevator stop at the door-open zone of some floor, the door would automatically open if the user presses that floor or door-open button.
11	Open Door by Hall Call	<ul style="list-style-type: none"> ⊙ While the elevator is heading up / down, during the door close, the door would automatically re-open if the up/down button of the certain floor is pressed and hold if the button is pressed continuously. ⊙ While the elevator stand by and the door is closed, the door would open if the up or down button of the certain floor is pressed.
12	Door-open Time Setting	<ul style="list-style-type: none"> ⊙ The elevator door would automatically close after the set time(T1) ⊙ If handicapped calls are registered, the door would be closed after the set time(T2) ⊙ If both car and hall call buttons are registered, the door-open holding time would be (T1+2)
13	Door Close Ahead of Time	<ul style="list-style-type: none"> ⊙ The lift would close the door immediately if the users press the door-close button during door opening (except for the first open while landing) or door-open holding time
14	Door Open Extension	<ul style="list-style-type: none"> ⊙ While passengers press the car call button of hold , the door would open and hold for the setting time without pressing the door-open button
15	Registered Car Call Cancelled while Reversing	<ul style="list-style-type: none"> ⊙ All registered car calls would be cancelled while lift heading direction is changed

No	Function	Operation Description
16	Full-Load Bypass Function	⊙ While the lift is full-loaded, the indicators would show "Full Load" and the lift would only follow the car calls and bypass the hall calls
17	Elevator Dynamic Status Display	⊙ Car / Hall indicators could show the complete lift operation information, including current floor, heading direction, inspection status, error message, and etc
18	Door Safety Edge / photo-sensor / Light Curtain Protection	⊙ Door would re-open immediately to protect the safety of passengers or goods while the safety edge or sensor is triggered
19	Over-loaded Protection	⊙ The lift door would not close with buzzing sound and car/hall indicators would display "OVERLOAD" when the loading is over rated capacity
20	Power Saving function	⊙ The system would turn into sleep mode for power - saving by turning off the car light and fan automatically after the setting time period until any call is registered
21	Parking Service Function	<p>Parking mode is switched on</p> <p>⊙ Lift would turn into parking mode from normal operation. It would complete the registered all car calls and then directly return to the base or assigned floor without answering the coming car and hall calls</p> <p>⊙ After landing the base floor, the lift would automatically open the door and then turn off the light and fan after a setting time. At this time, the elevator would be out of service</p> <p>⊙ The car / hall indicators would show the message of " OUT OF SERVICE"</p> <p>⊙ Switching back to normal mode , the system would turn into auto operation</p>
22	Error Auto-Detection and Record	<p>⊙ System would auto-detect the lift operation error and record the error history for the repair reference data</p> <p>⊙ If the error could be automatically solved , the lift would operate continuously. If no, the system would turn into STOP mode and not serve till the error is solved</p>
23	Operation Record	⊙ The system would record the elevator operation history information, including operation times and mileage, and etc

Special Operation Function

No	Function	Operation Description
1	Lift Inspection	⊙ By on board LCD display or hand-held LCD device , the user could inspect and adjust lifts, including car/hall call registering, door open/close, parameter settings, operation history and etc
2	Floor Learning	<p>⊙ Floor-learning could only be executed in inspection mode</p> <p>⊙ Floor-learning procedure</p> <ol style="list-style-type: none"> The lift would drive down to trigger the down stop switch The lift would drive up with the set speed and record the data of each floor, up to trigger the up stop switch The LCD display would show the success of floor learning
3	Leveling Correction	⊙ The landing position could be adjusted by the users operating the parameter settings of the controller.
4	Service Floor Setting	⊙ The user could set up the floors as In Service or Not accordingly

No	Function	Operation Description
5	Floor Display Setting	⊙ Floor displays could be customized with the composition of English letters and numbers accordingly
6	Standby Floor Setting	⊙ The lift could return to the base/assigned floor automatically after certain standby time in auto operation mode
7	Anti-frolic Function	⊙ If the loader sensor detects that the lift is under empty capacity, the illogical registered calls, over 3, would be auto-cancelled
8	Arrival Gong	⊙ The system would remind passengers to leave the elevator by ringing arrival gong while landing
9	Vocal Broadcast Function	⊙ Voice Announcer would speech out the lift operation status, including the heading direction and landing floors
10	Two Entrances Support	⊙ Two-entrance operation function could be disposed according to the building design for each floors
11	Leveling Dynamic Auto-Correction	⊙ The system would real-time monitor and dynamically correct the leveling parameters to ensure the floor landing accuracy
12	Error Auto-Rescuing	⊙ If the lift stops at non-door-open zone due to unknown reason, the system would execute the error auto-rescuing function to drive the lift to the door-open zone and open the door to let the passengers leave safely
13	Next-Floor Landing	⊙ For passengers' safety concerned, the lift would move to the next floor while it could not open the door at the intended floor
14	Auto Re-leveling	⊙ The lift would automatically re-level while landing at the non-door-open area
15	Button Stuck-Proof Function	⊙ While the car/hall button stuck, the lift would execute closing the door after the certain time and continue the service
16	Door Open/Close Overload	⊙ The lift door would not close with buzzing sound and car/hall indicators would display "OVERLOAD"when the loading is over rated capacity
17	Elevator Parallel Control	⊙ For the safety concern, the lift door would run toward the opposite while the door operation is overloaded or stuck.
18	3~8 Elevator Group Control	⊙ By applying the group control algorithm and self-learning function, one group control device could dynamically adjust the real-time multi-lift dispatching
19	Power Down and Power On Rescuing	⊙ While the power down and on again suddenly, the system would re-level up/down to the nearest floor, execute the door open-close test, and turn back to auto operation
20	UPS Emergency Rescue	⊙ If the power system is suddenly off, according to the loading status, the system would drive the lift up/down to the nearest floor, open the door to let the passengers leave, and stop the service with emergency UPS power
21	Accessibility Function	⊙ If accessible car/hall calls are registered, the lift would extend the door-open time after landing the intended floor

Monitor and Control Function

No	Function	Operation Description
1	Local Monitor	⊙ The system supports local monitor and control function by extensive device
2	Card Reader Control	⊙ Peripheral card reader could help the administer control lifts for safety
3	Monitor Panel	⊙ The monitor panel in the administer could help monitor the lift operation status more easily
4	Remote Monitor Application	⊙ The system could remotely monitor the lift real-time operation status by network technology

Safety Operation Function

No	Function	Operation Description
1	Safety Circuit Protection	◎ Safety circuit serially connect each safety switch. If the circuit loop is broken, the system would immediately stop the lift operation
2	Over-speed Protection	◎ If the system detects the lift moving speed over the rated, the lift would be stop immediately for the safety concern
3	Re-Leveling Adjustment Protection	◎ While the speed deceleration is abnormal, the system would drive the lift slowly to the intended level position
4	Top/Bottom Floor Speed Control	◎ Speed limit switches installed could prevent from high-speed operation at the both terminal sides of the hoistway in ensuring the passenger safety
5	Inverter Error Inspection	◎ The system would detect the inverter status and auto-reset if it malfunctions. If the inverter still works abnormally after reset, lift will stop operating
6	Contactors Feedback Inspection	◎ The system would continuously inspect the contactor operation status to ensure the accurate working of the contactors and brake
7	Door-lock Device Protection	◎ The lift would stop operating if the door lock is broken off or in malfunction during moving
8	Emergency Stop Protection	◎ If the emergency stop switch is pushed, the lift would stop operating immediately
9	Terminal Stop Protection	◎ Safety circuit would be broken up if the terminal switch is activated and then the main contactor and inverter power would be turned off immediately

Successful Case



Successful Case
Function Description



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