

## 世界电梯领域的杰出专家

CANNY ELEVATOR  
An Expert in the Worldwide elevator Industry.

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**KONL® 康力电梯**  
CANNY ELEVATOR  
中国驰名商标



**KLB医用电梯**  
KLB Hospital Elevator

**KLBS小机房医用电梯**  
KLBS Small Machine Room Hospital Elevator



## 传承一脉品质 延续亲亲温情

Adhere to the superior quality  
Proceed with the sweet care

康力电梯系列医用电梯，首先从输送就医患者的角度出发，采用变频变压（VVVF）逆变器控制技术，使电梯启、制动平稳，有效降低意外故障发生的概率，让病人安全出入。

康力电梯系列医用电梯注重人性化的设计，创造与医院环境和谐统一的清洁、明亮空间。为医护人员提供更多的工作便利，最大程度地满足医院各种特殊使用需求，协助医务人员高效快捷完成神圣的使命。

CANNY serial hospital lift firstly goes from the angle of conveying the patients. It adopts variable voltage and variable frequency (VVVF) inverter control technology which result in the smooth lift start and brake. It effectively reduces the accidental trouble so that the patients can safely enter into and exit from the lifts.

CANNY serial hospital lift lays the great importance on the humane design. It creates a clean and bright space which harmoniously unites with the hospital environments. It provides the medical staff with more and more work convenience. It satisfies various special use requirements from the hospitals to the greatest extent. It coordinates with the hospital personnel to quickly and efficiently finish the solemn mission.





## ◎多重安全防线，安全可靠 It is fine and secure to the multiple safety lines of defense

康力电梯系列医用电梯，运用世界尖端的模块化电脑控制技术，形成了高集成度的VVVF串行通讯控制系统。安全触板、故障自诊断、VVVF门机、防扒门、防捣乱等多重安全保护措施和各种应急装置，确保乘客绝对的安全。您的安全，就是我们最重要的追求！

CANNY serial hospital lift utilizes the top modular computer control technology in the world. It forms the highly integrated VVVF serial communication control system. The multiple safety protection measures and various emergency devices such as the safety edge, trouble self-diagnosis, VVVF door machine, push-aside resistant door, anti-nuisance etc. ensure the absolute security of the passengers. Your safety is our most important pursuit!



### ◎尖端的门机系统

#### The top-grade door machine system

康力电梯将先进的VVVF变压变频控制技术运用到电梯门机系统，确保梯门流畅和宁静开关，提高梯门开关的灵敏度并自动调整每楼层最适合的开关速度，以确保安全可靠的运行。而且有自学习能力的门负载检测器更提高了梯门开关的灵敏度，监控每个楼层梯门负载的变化，当受到异常阻力时梯门会自动重新打开。

CANNY lift employs the advanced VVVF variable voltage and variable frequency control technology to the lift door machine system to ensure the smooth lift door and the quiet switch. It enhances the sensitivity of the lift door switch and automatically regulates the most appropriate switch speed in every floor to guarantee the good security and reliability. What is more, the self-tuning door load detector increases the sensitivity of the lift door switch. It monitors the lift door load variation in each floor. When it encounters the abnormal drag, it will re-open the lift door.



### ◎高效矢量VVVF变频器

#### Effective vector VVVF frequency converter

康力医用电梯采用矢量控制的数字闭环VVVF变频器，可根据轿厢的实际负载，上下行速度，通过对电流大小和相位的调整，实时精确控制主机转动力矩，平稳地加速或减速，运行舒适性近乎完美。

CANNY hospital lift adopts the vector-controlled digital closed loop VVVF frequency inverter. It can have an accurate real-time control to the dispatcher rotating torque through adjusting the current and phase according to the actual car load and up / down speed. It can smoothly accelerate or decelerate with the nearly perfect travel coziness.



### ◎故障自诊断系统

#### Trouble self-diagnosis system

当运行发生故障时，第一时间自动发现并在液晶显示屏上显示故障信息，便于维修人员及时维修。同时，在“故障报告”菜单中保存着最近10次故障发生的详细情况，可供维修人员查看，及时排除故障。

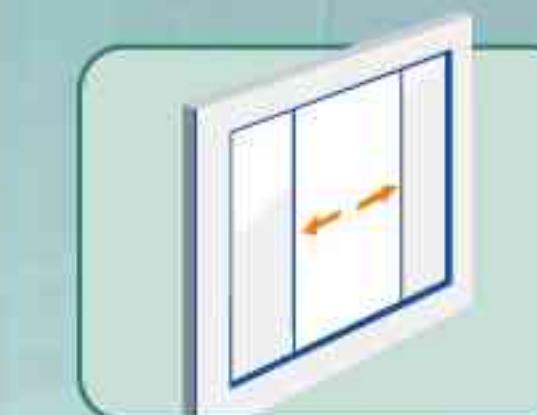
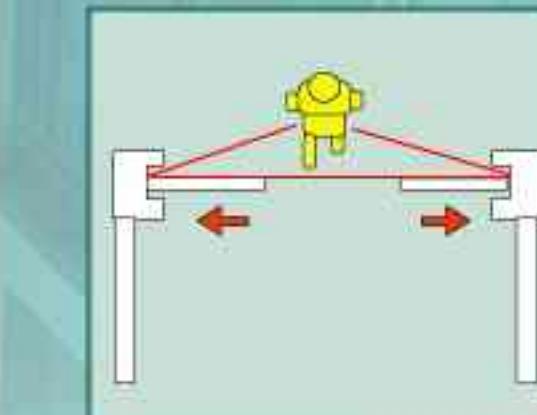
When there is something wrong with the lift travel, it will automatically and immediately find it and show the trouble information in the liquid crystal display screen so that the repairers can repair it in time. Meanwhile it keeps the detailed information of 10 latest troubles in "Trouble Report" Menu so that the repairers can check and remove them promptly.



### ◎光幕保护 Optical curtain protection

康力电梯系列医用电梯，利用反应可靠的机械式挡板和灵敏密集的红外光幕，在电梯门口形成光幕屏障，对于任何进入其探测平面的人或物体都能做出灵敏的反应，安全性能高，进出自如，不必担心传统门触板对病人或医务人员碰触，以免造成不必要的伤害。

CANNY serial hospital lift uses the reliably-reacted mechanical hood and the sensitive and concentrated infrared optical curtain. It shapes an optical curtain shield in the lift door to sensitively react to any person or object that enters into the probe plane with the high safety performance and free entry & exit. You don't have to worry about the contact between the traditional door edge and the patients or the medical staff. It will prevent from any unnecessary hurt.



### ◎延长延时关门 (可选)

#### It prolongs the time-delay door-shut (optional)

电梯轿门完全打开后，保持开门状态，经过延时后自动关门，以便医护人员特别是病人能够安全出入，如果特别需要还可延长延时关门时间。

After it completely opens the lift car door, it keeps the door-open condition and automatically shuts the door after the time-delay so that the medical staff and especially the patients can safely enter into or exit from the lifts. On special occasions, it can also prolong the time-delay door-shut time.

### ◎编码器评价

#### Coder assessment

对编码器脉冲信号进行了分析与评价，最大限度避免由编码器引起的电梯故障，直观地引导调试人员排除电梯抖动、不平层等故障，使病人或医务人员乘坐舒畅。

It analyzes and assesses the encoder pulse signal and avoids the lift trouble caused by the encoder to maximum extent. It visually guides the debugging staff to get rid of the lift tremble, un-leveling etc. so that the patients or the medical staff can have a smooth ride in the lift.

### ◎防扒门 (可选)

#### Push-aside resistant door (optional)

非轿厢所在层层门开启后，进入保护状态无法继续运行，需停电后复位。

After it opens the landing door not in the car-located floor, it enters into the protection condition and can not continue the running. It needs to be reset after the power interruption.

### ◎医用电梯技术规格表

#### Hospital lift technical specification table

| 产品型号<br>Product model                | KLB医用电梯<br>KLB Hospital elevator                     | KLBS小机房医用电梯<br>KLBS Small machine room hospital elevator |
|--------------------------------------|--|--|
| 控制系统 Control system                  | VVVF   | VVVF   |
| 曳引机 Traction machine                 | 永磁同步无齿轮<br>Permanent magnet synchronous and gearless | 永磁同步无齿轮<br>Permanent magnet synchronous and gearless     |
| 门机 Door machine                      | VVVF变频门机<br>VVVF variable frequency door machine     | VVVF变频门机<br>VVVF variable frequency door machine         |
| 轿厢高度 Car height                      | 2450mm   | 2450mm   |
| 额定载重(公斤) Rated load (kg)             | 1600   | 1600   |
| 额定速度(米/秒) speed (m/s)                | 1.0 / 1.5 / 1.6                                      | 1.0 / 1.5 / 1.6  |
| 最大提升高度(米) Max. lifting height (m)    | 60 / 80  | 60 / 80  |
| 最大群控台数 Max. group supervision number | 8  | 8  |



## ◎节能环保、和谐运载

### Energy-saving and environmental protection, harmonious transport

康力电梯系列医用电梯运用先进的VVVF永磁同步无齿轮曳引机作为驱动系统，大大地节省能源，全面满足医院楼宇需求，创造全新的节能环保空间。其自动照明设置、残疾人用梯功能、语音报站，体现人性化设计，自然和谐。

CANNY serial hospital lift uses the advanced VVVF permanent magnet synchronous & gearless traction machine as the drive system. It greatly saves the energy and comprehensively satisfies the hospital building needs. It creates a brand-new energy-saving and environmental protection space. It shows the humane design from the automatic lighting device, the handicapped lift use functions and the voice arrival. It is natural and harmonious.

#### ◎永磁同步无齿轮曳引机

##### Permanent magnet synchronous & gearless traction machine

选用稀土材料，将同轴传动技术、数字变频技术和群组电脑组合控制技术充分融合，高效节能，运行成本最小，热量散失低，工作效率极高，与一般传统技术相比，可节省能源40%之多。而且无齿轮曳引机无需更换油脂，无油渍污染，低噪音设计，为您营造宁静的乘坐空间。

It selects the rare earth material and fully merges the coaxial drive technology, the numeric variable frequency technology, the group-computer combined control technology into a whole with the minimum running cost and low heat dissipation. It is efficient and energy-saving. Compared with the common traditional techniques, it can save more than 40% of the energy. The gearless traction machine needs no grease renewal without any oil stain pollution. It offers a peaceful riding space for you.

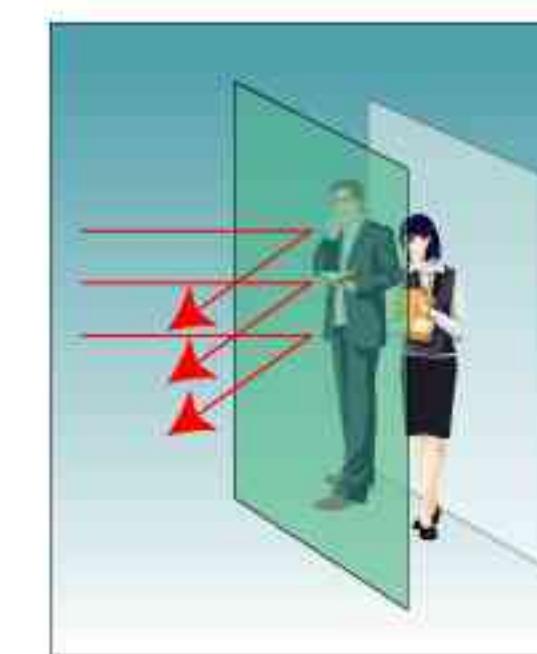


#### ◎电磁兼容性

##### Electro-magnetic compatibility

康力电梯系列医用电梯，控制系统充分遵循有关电磁兼容性标准，可有效避免医院内各种精密设备与电梯信号之间的电磁波干扰，消除电磁污染，满足现代医疗系统的需要。

The control system of CANNY serial hospital lift fully abides by the relevant electro-magnetic compatibility standard. It can effectively avoid the electro-magnetic wave interference between the lift signals and various precision equipments in the hospital. It gets rid of the electro-magnetic pollution and meets the demands from the modern medicare system.



#### ◎语音报站 (可选)

##### Voice arrival (optional)

电梯在每次平层过程中，语音报站器将报出即将到达的层楼，在每次关门前，报站器会预报电梯接下去运行的方向，运行和谐自然。

The voice announcer will report the approaching floor in every leveling process. Before the door open each time, the announcer will pre-announce the next lift running direction with very natural and harmonious running.



#### ◎照明自动

##### Automatic lighting

电梯在无人使用时，轿厢内照明自动熄灭，接到任何召唤命令后自动打开，充分节约电能。

When nobody uses the lift, it will automatically die out the illumination in the car and re-open the lighting at any calling command. It fully saves the electric energy.



## ◎人工智能，持之以恒

### The persistent human intelligence

智能化控制是康力先进电梯控制系统中不可分割的重要部分，针对医院的特殊需求，康力电梯系列医用电梯，连接更为针对性、更为细致的远程监控和群控派梯功能，为电梯持之以恒的运转提供强有力的保障。

The intellectual control is a key and indispensable constituent in the advanced CANNY lift control system. Aiming at the special requirements in the hospitals, CANNY serial hospital lift connects with the more delicate and purposeful long-distance monitor and group supervision dispatch functions. It furnishes the persistent lift travel with a vigorous support.



#### ◎电梯应急装置 (可选)

##### Lift emergency device (optional)

这是康力电梯系列医用电梯专门针对电梯由于停电或故障而导致中途突然停止运行时，自动进行应急救援的一种安全装置。该装置能及时接管电梯的控制权，开动电梯将轿厢运行至就近平层位置，打开轿门和厅门，让病人或医务人员安全离开以免困在电梯中，影响就医或医治时间。

When the lift suddenly stops in the mid way due to the power failure or trouble, CANNY serial hospital lift can automatically execute the emergency rescue. It can be timely in charge of the control rights of the lift. It starts the lift and travels the car to the nearly leveling position. It opens the car door and hoist-way door, safely rescue the patients or the medical staff so as not to influence the curing time.

#### ◎群控管理系统 (可选)

##### Group supervision system (optional)

即多台电梯的集中控制，系统用最佳算法计算出每时每刻哪台电梯响应召唤信号最迅速经济和合理，从而分配给最合适的电梯去响应，大大提高电梯的运输效率。

It is the concentrated control of the multiple lifts. Using the finest calculation, the system dispatches the most prompt, economical and reasonable lift to respond to the calling signal. As a result, it largely enhances the transport efficiency of the lifts.

#### ◎远程监控 (可选)

##### Long-distance monitor (optional)

通过有线或无线通讯模块，可实现防患于未然的远程监视系统，在远程监控中心对电梯运行状况和电梯内乘客情况进行实时监控，使故障在发生前就将故障排除，确保乘客安全。

- ① 电话网络接入方式。
- ② 宽带网络接入方式。
- ③ 无线网络接入方式。

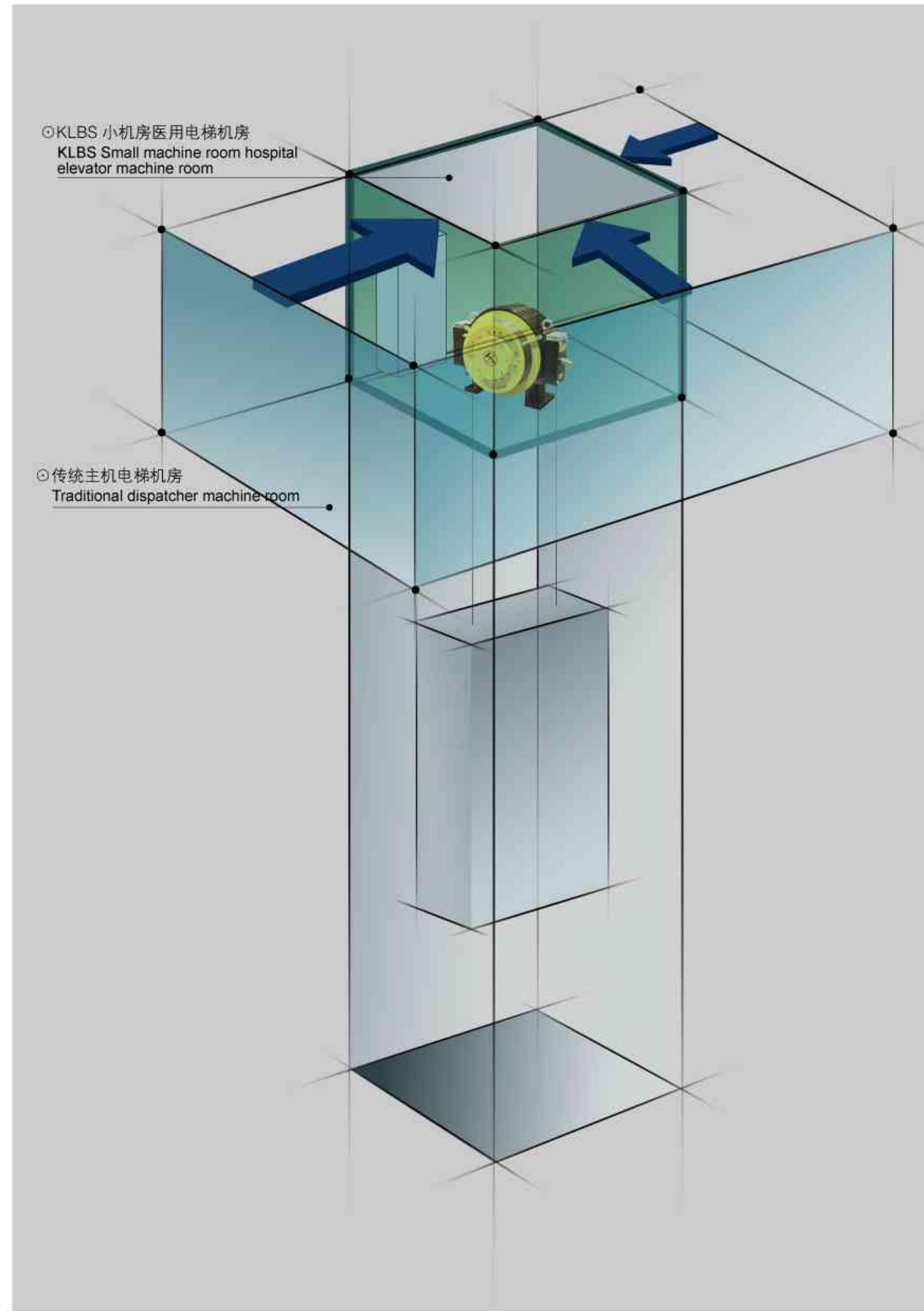


It can fulfill the preventative long-distance monitor system through the wired or wireless communication module. It carries out a real-time monitor to the lift travel condition and the passenger conditions in the elevator in the remote monitor center so that it can remove the trouble before it happens in order to ensure the passenger safety.

- 1) Telephone network access mode.
- 2) Broadband access mode.
- 3) Wireless network access mode.



KLBS Small Machine Room Hospital Elevator



创造与医院环境和谐统一的  
清洁、明亮空间

It creates a clean and bright space which is  
harmonious to the hospital environments.

◎集约空间，无微不至  
It is full of care in the concentrated space

康力小机房医用电梯的机房面积达到与井道面积完全相同，大大节约了建筑时间与成本，特殊设计的控制柜，使机房结构更为紧凑。与传统大机房相比，有效提高了建筑物的利用率，充分减少机房对建筑外观的影响，使建筑的设计与布置更自由；另外，先进的紧凑型永磁同步无齿轮驱动系统，将对环境的影响降到最低，特别适合各医疗卫生机构特殊环境下的电梯使用要求。给您无微不至的人性关怀！

康力小机房医用电梯，以节能、环保、安全、舒适、性能优良稳定等优势，充分体现了“以人为本”的设计思想，最大限度地为医患双方创造了一个充满温馨、舒适的电梯空间。

The machine room and well area are the same in CANNY small machine room hospital lift. It greatly saves the construction time and cost. The specially-designed control cabinet brings about the more compact machine room structure. Compared with the traditionally large machine room, it effectively increases the utility factor of the architectures. It fully reduces the bad influence from the machine room to the architectural outline. It results in the more free building design and layout. In addition, the advanced compact permanent magnet synchronous and gearless drive system lowers down the environmental influence to the minimum degree. It is especially fit for the lift use requirements in various special conditions of the medicare and hygiene institutions. It grants you with the humane and considerate care!

CANNY small machine room hospital lift takes the energy-saving, environmental protection, safe, cozy, stable and superior properties etc. as the advantages. It fully demonstrates the design thoughts of "the human-centeredness". It supplies a sweet and comfortable lift space for both the patients and the medical staff to the maximum extent.



◎高效低耗的节能战士  
The effective and low-loss energy-saving warrior

通过采用性能优异的永磁同步电机驱动，大大提高了系统的效率，将大幅降低电力消耗；运用无齿轮曳引技术，省却了传统的蜗轮蜗杆减速器，使机房噪音大大降低。康力小机房医梯环保与节能无处不在！(以1000kg~1.75m/s为例，日运行16小时，40%的工作状态，每台每年较传统电梯可节省电力9000千瓦/小时。)

It greatly enhances the system efficiency and largely reduces the power consumption through adopting the excellent performance permanent magnet synchronous motor drive. It utilizes the gearless traction technology to save the traditional worm geared decelerator. It vigorously cuts off the machine room noise. The environmental protection and energy-saving exit everywhere in CANNY small machine room hospital lift! (Take 1000kg~1.75m/s for example, it daily travels 16 hours with 40% of the work conditions, therefore it can save 9000kW/hour of electricity every year compared with that of the traditional lifts.)



之梯

Standard Allocated Car



◎轿厢装饰配置  
Car decoration allocation

| 项目 Item                  | 规格 Specification  |
|--------------------------|---|
| 轿顶 Car top               | 发纹不锈钢 Hairline stainless steel                              |
| 轿壁、轿门 Car wall, Car door | 发纹不锈钢 Hairline stainless steel                              |
| 扶手 Handrail              | 不锈钢扁扶手 Stainless steel flat handrail                        |
| 操纵箱面板 Operation panel    | 发纹不锈钢 Hairline stainless steel                              |
| 地板 Floor                 | PVC塑料地板 PVC plastic floor                                   |
| 地坎 Sill                  | 硬质铝 Hard aluminum<br>铸铁( $\geq 3T$ ) Cast iron( $\geq 3T$ ) |

Optional Car  
选配轿厢



◎轿厢装饰配置  
Car decoration allocation

| 项目 Item                  | 规格 Specification  |
|--------------------------|---|
| 轿顶 Car top               | 喷塑钢板 Steel plate plastic jet                                |
| 轿壁、轿门 Car wall, Car door | 喷塑钢板 Steel plate plastic jet                                |
| 扶手 Handrail              | 不锈钢扁扶手 Stainless steel flat handrail                        |
| 操纵箱面板 Operation panel    | 发纹不锈钢 Hairline stainless steel                              |
| 地板 Floor                 | PVC塑料地板 PVC plastic floor                                   |
| 地坎 Sill                  | 硬质铝 Hard aluminum<br>铸铁( $\geq 3T$ ) Cast iron( $\geq 3T$ ) |

医梯

厅门系列 Hoist-way Door Series



中分式  
Center opening type

◎出入口装饰  
Entry & exit decoration

| 项目 Item           | 规格 Specification   | 配置 Allocation |
|-------------------|--|---------------|
| 门套 Jamb           | 与厅门相配 It matches with the hoist-way door                       | S             |
| 墙套 Wide jamb      | 发纹不锈钢 Hairline stainless steel<br>喷塑钢板 Steel plate plastic jet | S<br>O        |
| 厅门 Hoist-way door | 发纹不锈钢 Hairline stainless steel<br>喷塑钢板 Steel plate plastic jet | S<br>S        |
| 地坎 Sill           | 硬质铝 Hard aluminum<br>铸铁( $\geq 3T$ ) Cast iron( $\geq 3T$ )    | S<br>O        |

S: 标准配置 S: Standard allocation O: 可选配置 O: Optional allocation



旁开式  
Side opening type



双折中分式  
Double-folded center opening type

◎多种开门方式

The multiple door open modes

为满足医院的不同进出要求，医用电梯有井道单侧开门，井道前后分别开门，以及前后贯通开门(可选)三种方式供选择，与医院建筑结构灵活匹配。

In order to meet different entry & exit requirements from the hospitals, the hospital lift has well single-side door open, well front-and-aft respective door-open, front & rear opposite door open (optional) for your choice. It flexibly matches with the hospital construction structures.

电梯

## 操纵箱 Operation Panel



KL-203 (标配)  
(Standard configuration)



外召唤(标配)  
Outer calling  
(Standard configuration)

外召唤(并联)  
Outer calling (parallel)

消防基站  
Fire-fighting home landing



KL-204 副操作箱 (可选)  
KL-204 Sub-operating panel (optional)

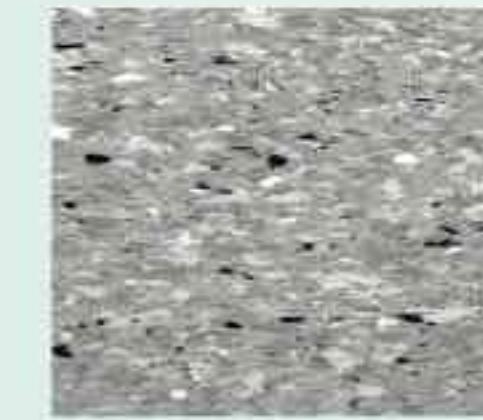
按照人体工程学设计的轿厢操纵箱，手感细腻，反应灵敏，操作方便自如；精致的层站显示器，清晰、迅捷地显示各种数码及符号。

The car operation panel designed according to the ergonomics principle has the fine and exquisite feel, sensitive reaction, convenient operation, delicate landing display which can clearly and promptly show various numbers and symbols.

## 地板 (可选) Floor (Optional)



KL-JD 003



KL-JD 004



KL-JD 005



KL-JD 006

## 扶手 (可选) Handrail (Optional)



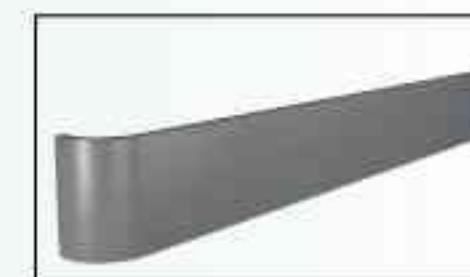
KL-FS 001



KL-FS 003

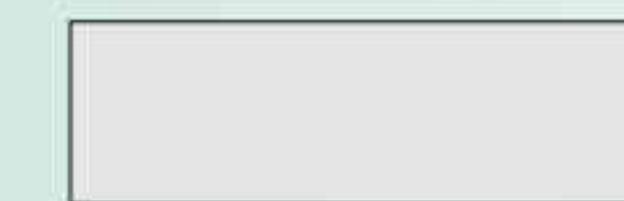


KL-FS 005

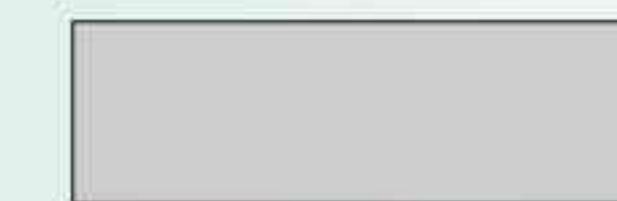


KL-FS 009

## 喷塑色标 (可选) Plastic Jet Color Standard (Optional)



KL-SK 001 冰灰  
Ice gray



KL-SK 002 飞机灰  
Plane gray



KL-SK 003 米黄  
Corny yellow

## ◎基本功能 Basic Functions

电梯

基本功能  
Basic Functions

| 名称 Name  | 电梯动作说明 Lift actuation description  |
|--|--|
| 自动运行<br>Automatic running                                      | 到站自动开门；自动延时关门；自动提前关门(门开未到延时关门时间时)；内选自动登记(防捣乱、误操作消除)；外召反向自动截车；外召自动最高(或最低)自动截车。<br>Arrival automatic door-open, automatic time-delay door open, dynamic pre-opening of door (when the door-open does not reach the time-delay door-shut time,) internally selective automatic register (anti-nuisance, accidental operation removal), outer calling clockwise automatic stop, outer calling reversal highest (or lowest) automatic stop. |
| 司机运行<br>Driver running   | 到站自动开门；手动关门；内选自动登记(防捣乱、误操作消除)；外召自动顺向截车。<br>Arrival automatic door-open, manual door-shut, internally selective automatic register (anti-nuisance, accidental operation removal), outer calling automatic clockwise stop.   |
| 检修运行<br>Inspection travel                                      | 将系统设置为检修状态后，按慢上或慢下按钮，电梯会以检修速度向上或向下运行，松开按钮后停止。<br>After it sets the system into the inspection condition, if you press "slow up" or "slow down" button, the lift will operate upwards or downwards by the inspection speed. When it loosens the button, it will stop the operation.   |
| 上电自动开门<br>Electrified automatic door-open                      | 正常情况下，每次电梯系统通电后，如果轿厢正在门区，则轿门自动打开。<br>Under the normal conditions, every time it electrifies the lift system, if the car is in the door zone at that time, then it will automatically open the car door.  |
| 自动关门延时<br>Automatic door-shut time-delay                       | 轿门完全打开后，保持开门状态，经过延时后自动关门。<br>After it completely opens the door, it will keep the door-open condition and automatically shut the door after time-delay.  |
| 本层外召开门<br>Local outer calling door-open                        | 电梯正在关门或已关门但未启动时，若本层外召，则重新开门。<br>When the lift is shutting the door or it has shut the door but not being started, if there is a local outer calling, it will re-open the door again.   |
| 安全触板、光幕保护<br>Optical curtain protection to the safety edge     | 安全触板或光幕被挡时，关门动作立即停止并自动开门。<br>If the safety edge or optical curtain has been warded off, it will immediately stop the door-shut actuation and automatically opens the door.   |
| 超载不关门<br>None door-shut in overload                            | 载时不关门、超载灯亮、蜂鸣器鸣响、轿厢内显示CZ、电梯不启动。<br>It does not shut the door in overload. It is bright to the overload lamp and rings the buzzer. It shows CZ in the car and does not start the lift.  |
| 满载直驶<br>Full-load bypass                                       | 达到额定载荷时，只响应内选，不响应外召。<br>When it reaches the rated load, it will only respond to the internal selection and not respond to any outer calling.   |
| 司机控制直驶<br>Driver control bypass                                | 有司机运行时，按下直驶按钮，电梯只响应内选，不响应外召。<br>When a driver operates the lift, press bypass button, the lift will only respond to the internal selection and will not respond to any outer callings.   |
| 运行状态显示<br>Running condition display                            | 通过控制柜内主控电脑板上的液晶显示器显示电梯运行的状态、方向、所处楼层、轿门状态、负载状况及故障信息等。<br>It shows the lift running condition, direction, floor, car door condition, load condition, trouble information etc. through the liquid crystal display in the main-control computer panel of the control cabinet.  |
| 照明自动开关<br>Automatic switch of lighting                         | 15分钟内电梯无人使用时，轿厢内照明将自动熄灭，接到任何召唤命令后自动打开。<br>If nobody uses the lift within 15 minutes, it will automatically die out the illumination in the car, whereas it will automatically open the lighting at receiving any calling command.  |
| 故障自动靠站<br>Automatic parking at trouble conditions              | 若快车运行时发生故障停止在非门区，则轿厢向中间楼层方向爬行至平层位置后开门。<br>If the lift runs at a quick speed, then gets into trouble and park in none door zone, the car will creep to the mid floor direction and open the door at the leveling position.  |
| 消防运行<br>Fire-fighting operation                                | 清除所有内选外召信号，返回消防基站，门常开输入消防联动信号。<br>After it gets rid of all the inner-selection and outer-calling signals, it will return to the fire-fighting base, keep normally-open of the door and output the fire-fighting linkage signal.  |
| 误操作消除<br>Accidental operation removal                          | 重复按一次内选按钮，即可撤消误选登记(内选灯灭)。<br>If repeatedly press inner-selection button, it can cancel the error register. (It dies out the inner selection lamp.)   |
| 防捣乱<br>Anti-nuisance   | 当电梯运行至最远端楼层换速时，清除所有的内选登记；电梯轻载时内选最多登记3个，多选无效。<br>When the lift runs to the furthest floor to change the speed, it will cancel all the inner selection registers. It can internally choose 3 registers to the greatest extent in the light load. It is ineffective for more selections.  |
| 外召按钮嵌入自诊断<br>Inlaid self-diagnosis of the outer calling button | 若某一外召按钮按下持续时间超过20秒，系统则认为该按钮嵌入(不能复位)，对该层外召不予登记，且该按钮对应的外召应答不断闪烁报警。<br>If certain outer calling button has been continuously pressed for more than 20 seconds, the system takes it as an inlaid button (can not be reset), it will then not register the outer calling of this floor and keep flickering & alarming to the corresponding outer calling of this button.  |
| 到站钟<br>Arrival gong  | 在电梯减速平层过程中会鸣响装在轿顶的到站钟，以提醒轿内乘客和厅外候梯乘客电梯正在平层。<br>It will ring the arrival gong at the car top in the lift decelerating & leveling process so as to remind the passengers in the car and out of the hoist-way door that the elevator is leveling now.   |

| 名称 Name  | 电梯动作说明 Lift actuation description  |
|--|--|
| 重复关门<br>Repeated door-shut                                   | 执行关门指令后，在规定的时间内门联锁回路没有接通时，重新开门后再关门。<br>After executing the door-shut command, if the door interlocking loop has been not connected within the stipulated time, it would reopen the door and then shut it off again.  |
| 故障诊断<br>Trouble diagnosis                                    | 当运行发生故障时，自动诊断出故障产生原因，并在液晶显示屏上显示故障信息；将最近10次故障发生的时间、类型及故障楼层等信息保存在“故障报告”菜单中，以供维修人员查看。<br>If the operation gets into trouble, it will automatically diagnose the cause(s) and display the trouble information in the liquid crystal display screen. It stores the time, category, troubled floor etc. of 10 latest troubles in the "trouble report" menu for the repairers to check.   |
| 驻停控制<br>Parking control                                      | 当设置在指定楼层的钥匙开关动作后，电梯将在应答完所有指令后返回指定楼层，同时将启用节能模式，切断轿内照明并点亮外停梯开关指示灯。<br>When it actuates the key switch in the designated floor, the lift will return to the designated floor after responding to all the commands, meanwhile it will start the energy-saving mode, cut off the illumination in the car and lighten the outer switch indicating lamp.  |
| 机房选层<br>Machine room floor selection                         | 通过控制柜内液晶显示器的按键操作，进行内选登记。<br>It carries out the internal selection and register through the press key operation to the liquid crystal display in the control cabinet.   |
| 机房开关门<br>Machine room door open / shut                       | 通过控制柜内液晶显示器的按键操作，进行开关门命令输入。<br>It inputs the door open / shut command through the press key operation of the liquid crystal display in the control cabinet.  |
| 不停层设置<br>None floor stop setting                             | 通过所设楼层时不停车。<br>It will not park at the set floor.  |
| 待梯层设定<br>Setting of the lift waiting floor                   | 在无司机状态、在一定时间内既无内选也无外召时，轿厢自动运行到待命层。<br>Under the no driver conditions, if it has no internal selection or outer calling in certain period of time, the car will automatically run to the waiting floor.   |
| 楼层显示字符的任意设定<br>Wanton setting of the floor display character | 通过控制柜内液晶显示器的按键操作任意设置各楼层的显示字符（英文字母或有符号的数字）。<br>It can wantonly set the display characters (English characters or numbers with symbols) of various floors through the press key operation of the liquid crystal display of the control cabinet.  |
| 定时自动开关梯<br>Timing of automatic start/stop                    | 系统按所设置开梯/关梯时间自动开梯/关梯(驻停)。<br>The system will automatically start / stop (or park) according to the set timing.   |
| 司机选择定向<br>Directional selection of the driver                | 行驶启动前按上、下方向按钮可优先确定运行方向。<br>It can give priority to the running direction in pressing up / down button before starting the drive.   |
| 专用运行<br>Special running                                      | 此状态下外召按钮无效，电梯运行完全由轿厢内司机控制，开关门方式同有司机状态。<br>It is ineffective to the outer calling button under such conditions. The driver inside the car completely controls the lift operation. The door open / shut modes are the same as that with the driver.  |
| 干扰评价<br>Interference assessment                              | 对现场控制柜接地(抑制干扰源)情况、井道线接地(可靠屏蔽)情况作出相应评价，指导调试人员排除隐患，为微机控制系统提供更加可靠安全的工作环境。<br>It makes the corresponding assessment to the site control cabinet grounding (restricting the interference source), well wire earthing (the reliable shield) conditions. It directs the adjustors to remove the hidden danger and provides the micro-computer control system with the more secure and reliable work environments.   |
| 编码器评价<br>Coder assessment                                    | 对编码器脉冲信号进行了分析与评价，最大限度避免由编码器引起的电梯故障，直观地引导调试人员排除电梯抖动、不平层等故障。<br>It analyzes and assesses the coder pulse signal and avoids the lift trouble caused by the coder to the greatest extent. It visually guides the adjustors to remove the lift tremble, un-leveling etc.  |
| 输入口干扰评价<br>Input port interference assessment                | 系统可对输入信号进行评价并通过控制柜内液晶显示器显示出来，指示作业人员对井道线及随行电缆合理布线、妥善接地，从根本上消除因某些随行电缆及井道线与主控电脑板并行连接对主控电脑板输入产生干扰而造成的电梯层显串号、不平层等故障。<br>The system assesses and displays the input signal through the liquid crystal display in the control cabinet so that it directs the operators to reasonably distribute the well wires and accompanying cables with the proper earthing. It fundamentally solves the troubles such as the floor skip, un-leveling etc. caused by the interference to the main control computer panel input due to the parallel connection between certain cables; well wires and the main control computer panel. |
| 紧急电动<br>Emergency electric start                             | 紧急电动是在安全回路出现故障，正常的动力电源可以正常供给的情况下采取的一种紧急措施(短接部分安全回路)，以便在最短的时间内释放被困在轿厢内的人员，恢复电梯的正常使用。<br>Emergency electric start is an emergency measure that can be adopted under the condition that it has the normal power supply when there is something wrong with the safety loop (the safety loop in jump out part) so that it can release the passengers who are stranded in the car within the shortest time possible and restore the normal use of the elevator.  |
| 井道自学习<br>Hoistway self-tuning                                | 检修状态下自下限位开关起向上运行至上限位开关止，测出各楼层的门区位置及井道开关位置的数据，并永久保存。<br>Under the inspection conditions, it runs upwards from the lower limit switch to the upper limit switch. It detects the door zone position of various floors and the data of the well switch position for the eternal storage.   |



## 可选功能 Optional Functions

The ideas that originate from the considerate care

## ◎基本功能 Basic Functions

| 名称 Name   | 电梯动作说明 Lift actuation description   |
|---|---|
| 逆向运行保护<br>Reverse running protection                            | 当系统检测到电梯连续3秒钟运行的方向与指令方向不一致时，就会立即紧急停车，故障报警，并在CPU复位前，禁止电梯一切动作。<br>When the system detects that the lift running direction does not coincide with the command direction in 3 continuous seconds, it will have an immediate emergency stop and make a trouble alarm. It is forbidden to have any actuations before CPU reset. |
| 防打滑保护<br>Anti-slippery protection                               | 系统检测到钢丝绳打滑将停止轿厢一切运行。并直到CPU复位才能恢复正常运行。<br>When the system detects the slippery wire rope, it will stop all the car operations until CPU reset which restores the normal running.   |
| 防溜车保护<br>Anti-skating protection                                | 系统检测到电梯停梯时，连续3秒钟有反馈脉冲产生，就判定电梯发生溜车，所以将停止轿厢一切运行，并在CPU复位前电梯始终不能动作。<br>When the system detects that the feedback pulse produces in 3 continuous seconds during the lift stop, it will judge the skating of the lift, stop all the car operation. It will always not actuate before CPU reset.                                 |
| 安全回路保护<br>Safety loop protection                                | 安全回路断开，电梯将立刻停止运行。<br>When it disconnects the safety loop, the lift will immediately stop the operation.   |
| 限位保护<br>Limit protection  | 系统检测到限位开关动作，将立刻停止电梯运行。<br>When the system detects the limit switch actuation, it will immediately stop the lift running.  |
| 极限保护<br>Ultimate protection                                     | 系统检测到极限开关动作，整个系统将立刻掉电。<br>When the system detects the ultimate switch actuation, the whole system will immediately be de-energized.   |
| 门联锁保护<br>Interlock protection                                   | 全部门联锁都闭合，电梯方能运行。如运行中门联锁断开或抖动，电梯将停止运行。<br>Until it closes all the interlocks, can the lift be operated then. If it disconnects or trembles the interlock in the operation, the lift will stop the running.   |
| 运行接触器保护<br>Running contactor protection                         | 系统可检测电机回路接触器动作是否可靠。如发现异常(未吸合或粘连)，将停止电梯运行。<br>The system can detect whether the motor loop contactor actuation is reliable or not. If any abnormal conditions (no pick-up or adhesion) occur, it will stop the lift running.   |
| 抱闸检测保护<br>Braking detection protection                          | 通过抱闸臂检测开关对抱闸的打开与闭合实时监测。当抱闸未按要求打开时，系统将禁止电梯启动。<br>It implements a real-time monitor to the brake open / shut through the braking arm detection switch. If the brake does not open upon the request, the system will prohibit the lift start.  |
| 端站换速及楼层号校正<br>Terminal speed change and floor number correction | 系统在运行中检测到端站开关后，电梯将强迫换速并自动校正楼层显示。<br>When the system detects the terminal switch in running, the lift will be forced to change the speed and automatically correct the floor display.  |
| 手动松闸救援<br>Manual brake release aid                              | 非平衡状态下，远程手动松闸，慢速溜车，进入门区后自动报警，手动开门救援。<br>Under the non-balancing conditions, it makes a remote manual brake release and slow skating. It automatically alarms after entering into the door zone with the manual door-open aid.   |

| 名称 Name   | 电梯动作说明 Lift actuation description  |
|---|--|
| 小区监控<br>Residential quarter monitor               | 通过总线，控制系统与装在监控室的PC机相连，再加上监控软件，就可以在PC上监控到电梯的楼层位置、运行方向、故障状态等情况。<br>The control system connects with PC in the monitor room through the bus. Plus the monitor software, it can use PC to monitor the lift floor position, running direction, trouble condition etc.   |
| 语音报站<br>Voice arrival                             | 系统在配有语音报站功能时，电梯在每次平层过程中，语音报站器将报出即将到达的层楼，在每次关门后，报站器会预报电梯接下去运行的方向，等等。<br>When the system is allocated with the voice arrival function, the voice announcer will report the arriving floor in every leveling process. Before the door shut each time, the announcer will pre-report the next lift running direction etc.  |
| 并联运行<br>Parallel running                          | 并联控制就是两台电梯通过CAN串行通讯总线进行数据传送以实现两台电梯协调响应层站召唤的功能，从而提高电梯的运行效率。<br>The parallel control aims at fulfilling two lifts' coordinated responding to the landing call through the data transmission from CAN serial communication bus so that it can enhance the lift running efficiency.  |
| 群控运行<br>Group supervision running                 | 群控，即多台电梯的集中控制，系统最多可做到八台电梯群控。在群控系统使用中，使梯群能自动选择最合适的服务，避免电梯重复停梯，缩短乘客候梯时间，提高运行效率，节约电能。<br>The group supervision means the concentrated control of the multiple lifts. The system can have a group supervision of maximum 8 lifts. In using the group supervision system, the lift group can automatically choose the most appropriate response so as to avoid the repeated lift stop, reduce the passengers' waiting period and increase the running efficiency, save the electric energy. |
| 后备运行<br>Spare running                             | 当群控时有此选配功能。<br>It is optional in the group supervision.  |
| 连续运行<br>Continuous running                        | 当群控时有此选配功能。<br>It is optional in the group supervision.  |
| 上班高峰服务<br>On-duty peak service                    | 当群控时有此选配功能。<br>It is optional in the group supervision.  |
| 分散待梯<br>Distribution waiting                      | 当群控时有此选配功能。<br>It is optional in the group supervision.  |
| 身份识别<br>ID identification                         | 对电梯的使用加以控制，只有配有ID/IC卡才能用此电梯。<br>It controls the lift use. Only ID/IC card can use the lift.  |
| BAS功能<br>BAS function                             | 对整个电梯的运行状况进行监视。<br>It monitors the whole lift running conditions.  |
| 液晶显示<br>Liquid crystal display                    | 液晶显示分轿内液晶显示跟外召液晶显示。<br>The liquid crystal display is divided into car liquid crystal display and outer calling liquid crystal display.   |
| 电梯应急装置<br>Lift emergency device                   | 电梯应急装置是针对电梯由于停电或故障而导致中途突然停止运行时，该装置会迅速动作，驱动电梯低速运行至平层位置，平层后，同时开门疏散乘客。<br>If the lift suddenly stops the running in the mid way due to some trouble or power failure, this device will actuate rapidly to slowly drive the lift to the leveling position. After the leveling, it opens the door to evacuate the passengers at the same time.  |
| 贯通门<br>Opposite door                              | 控制贯通门在相应楼层的正确开、关动作。<br>It controls the opposite door for the correct open / shut in the corresponding floor.   |
| 提前开门功能<br>The function of door-open ahead of time | 电梯正常减速运行到目的层门区后，满足提前开门条件，电梯将提前开门。<br>When the lift normally decelerates to the destination landing door zone, if it satisfies the function of opening the door ahead of time, it will do so.   |
| 再平层功能<br>Re-leveling function                     | 电梯停在当前层，当过多乘客进入电梯或离开电梯时，由于钢丝绳的伸长或缩短，轿厢脱离平层区域(门区感应器有一个脱离)；电梯将在开门的情况下启动低速运行至平层点。<br>After the lift parks at the current floor, as too much passengers enter into or leave the lift, it results in the expansion or shrink of the steel rope, the car will be separated from the leveling zone. (There is a separation in the door zone inducer.) Under the door open conditions, the lift will start the low speed running to the leveling point.  |
| 防扒门<br>Push-aside resistant door                  | 非轿厢所在层层门开启后，进入保护状态无法继续运行。需停电后复位。<br>If the door opens not at the located floor, it will enter into the protection condition, so it can not continue the running. It needs to be reset after the power failure.   |
| 延长关门延时<br>It prolongs the door shut time delay.   | 轿门开启至自动关门前，按下此按钮，则本次自动开门保持时间为所设置延长时间。<br>From the car door open to the automatic shut, press this button, the automatic door-open time can be prolonged to the set time.   |

## ◎可选功能 Optional Functions

| 名称 Name  | 电梯动作说明 Lift actuation description   |
|--|---|
| 残疾人用梯功能<br>The functions of the lift for the handicapped | 通过参数设置启用残疾人用梯功能，残疾人操纵盘、外呼：设残疾人内选指令、开关门输入按钮；使用通用外呼板，通过地址区分是残疾人外呼还是普通外呼；平层时，如本层有残疾人内指令或外呼，本次开门保持时间加长(开门延长时间可设)，如按下残疾人操纵盘开门按钮，本次开门保持时间加长(开门延长时间可设)。<br>It uses the parameters to set and adopt the functions of the lift for the handicapped, the operation panel and outer calling for the handicapped, the inner selection commands for the handicapped, door open / shut input button, the general-purpose outer calling panel. It divides the ordinary outer calling from the outer calling for the handicapped by distinguishing the address. In the leveling, if there is any inner command or outer calling from the handicapped, it will lengthen the door open time. (It can set to prolong the door open time.) If you press the handicapped operation panel door open button, it will prolong the door open period this time. (It can set to prolong the door open time.) |
| 远程监控<br>Long-distance monitor                            | 通过有线或无线通讯模块，可以在远程监控中心对电梯运行状态进行实时监控。<br>It can implement the real-time monitor to the lift running condition in the remote monitor center through the wired or wireless communication module.  |

| 名称 Name                          | 电梯动作说明 Lift actuation description   |
|----------------------------------|---|
| 再平层功能<br>Re-leveling function    | 电梯停在当前层，当过多乘客进入电梯或离开电梯时，由于钢丝绳的伸长或缩短，轿厢脱离平层区域(门区感应器有一个脱离)；电梯将在开门的情况下启动低速运行至平层点。<br>After the lift parks at the current floor, as too much passengers enter into or leave the lift, it results in the expansion or shrink of the steel rope, the car will be separated from the leveling zone. (There is a separation in the door zone inducer.) Under the door open conditions, the lift will start the low speed running to the leveling point. |
| 防扒门<br>Push-aside resistant door | 非轿厢所在层层门开启后，进入保护状态无法继续运行。需停电后复位。<br>If the door opens not at the located floor, it will enter into the protection condition, so it can not continue the running. It needs to be reset after the power failure.  |

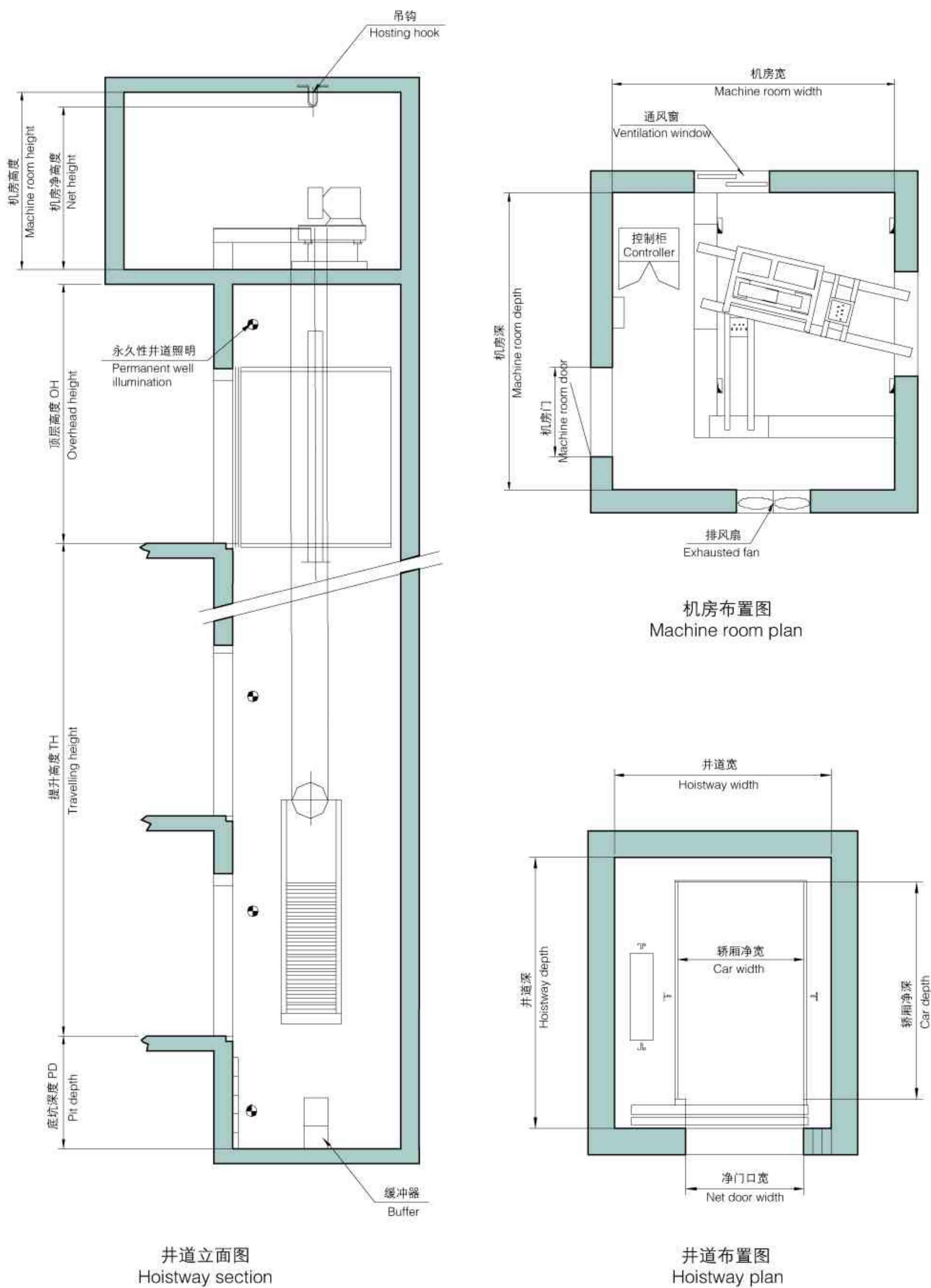
源于关爱的构想



# KLB Hospital Elevator

The ideas that originate from the considerate care

## ◎ KLB 土建图 KLB Construction Sketch



## ◎ 用户应完成的工作 User's tasks

- 1、本图按有关电梯技术标准要求绘制，需方复核后作为电梯安装依据。  
It makes the drawing according to the relevant lift technical standard. It needs to be checked and confirmed by the user before it becomes the lift installation proof.
- 2、机房内通向井道的所有孔洞四周应筑一高50mm以上，宽度适当的台阶。  
It shall have one above 50mm step with the proper width around the holes that lead to the well inside the machine room.
- 3、曳引机承重梁如需埋入墙内，则支承长度应超过墙中心20mm，且不应小于75mm。  
It shall be embedded in the wall for the machine supporting beam of the traction machine. Then the supporting length shall be 20mm more than the wall center. It shall not be less than 75mm.
- 4、安装完成后，地面装饰应与厅门地坎上表面有一高度适当的台阶，以防止水或其它杂质进入井道。  
After the installation completion, the ground decoration shall have a proper height step in the sill surface to prevent water or other impurity from entering into the well.
- 5、安装时浇灌的物体应能满足相关图示要求。  
The casting object in the installation shall satisfy the relevant drawing requirements.
- 6、缓冲器底座制作时应在安装人员的指导下施工。  
The buffer base shall be made under the directions of the installers.

## ◎ KLB 参数表 KLB Parameter Table

| 主参数 Main specifications       | 载重量(Kg)<br>Loading capacity        | 1600 |      |      |
|-------------------------------|------------------------------------|------|------|------|
|                               | 额定速度(m/s)<br>Rated speed           | 1.0  | 1.5  | 1.6  |
| 轿厢尺寸(mm)<br>Car size          | 开门尺寸(mm)<br>Door opening size      | 1300 |      |      |
|                               | 宽 Width                            | 1400 | 1400 | 1400 |
|                               | 深 Depth                            | 2400 | 2400 | 2400 |
| 井道尺寸(mm)<br>Hoistway size     | 高 Height                           | 2450 | 2450 | 2450 |
|                               | 宽 Width                            | 2400 | 2400 | 2400 |
|                               | 深 Depth                            | 3000 | 3000 | 3000 |
| 机房尺寸(mm)<br>Machine room size | 宽 Width                            | 3800 | 3800 | 3800 |
|                               | 深 Depth                            | 4000 | 4000 | 4000 |
|                               | 高 Height                           | 2500 | 2500 | 2500 |
| 其他<br>Others                  | 顶层高度(mm)<br>Top floor height       | 4800 | 4800 | 4800 |
|                               | 底坑深度(mm)<br>Pit depth              | 1500 | 1700 | 1700 |
|                               | 最大提升高度(m)<br>Max.travelling height | 60   | 80   | 80   |

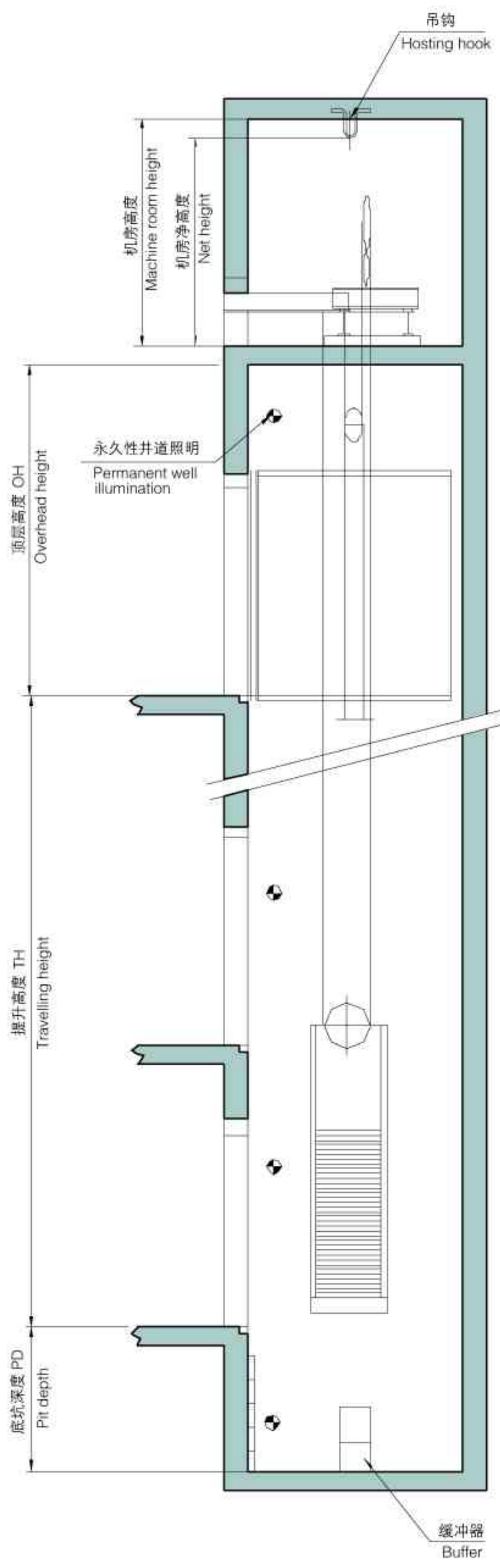


# KLBS Small Machine Room Hospital Elevator

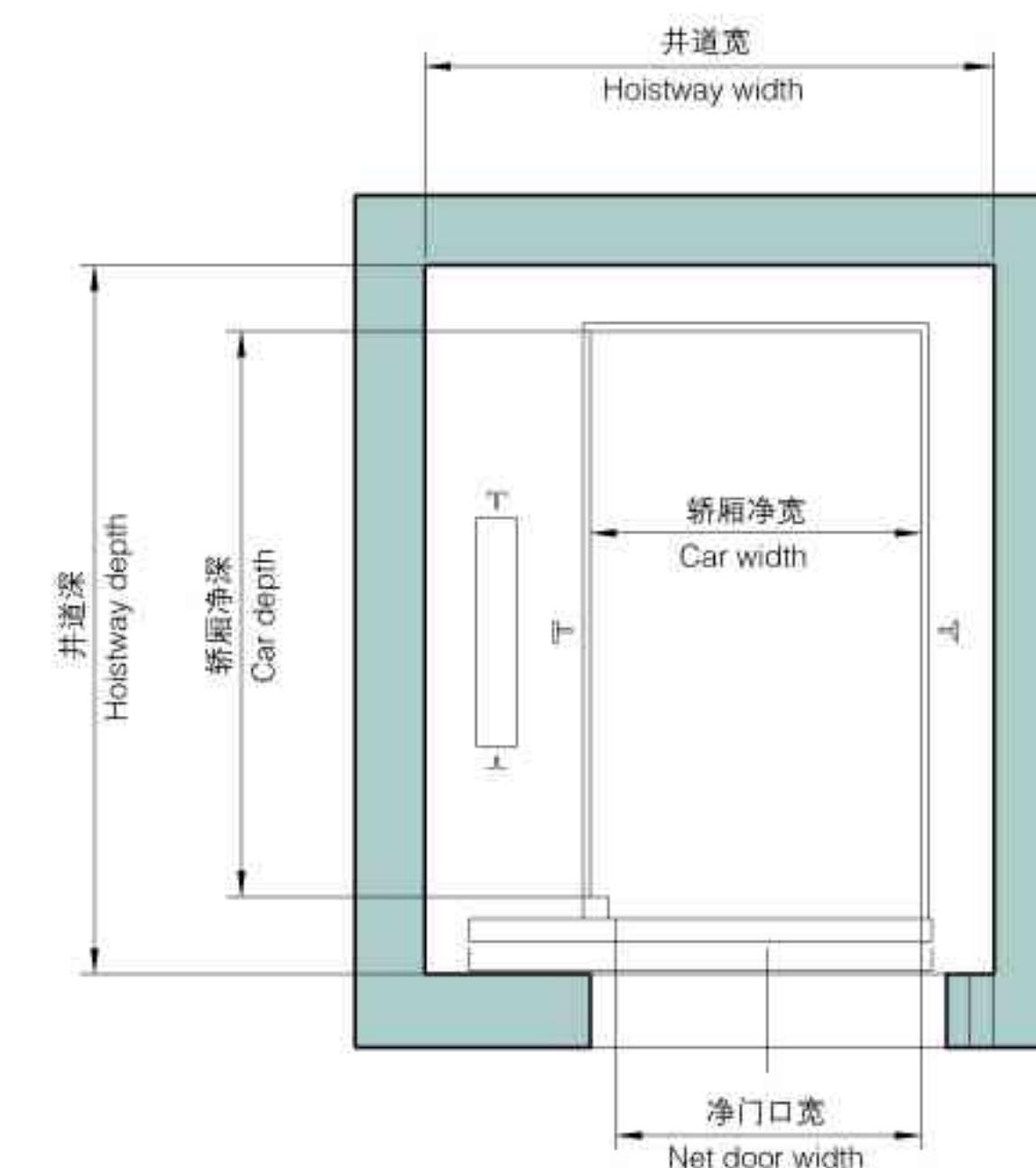
The ideas that originate from the considerate care

源于关爱的构想

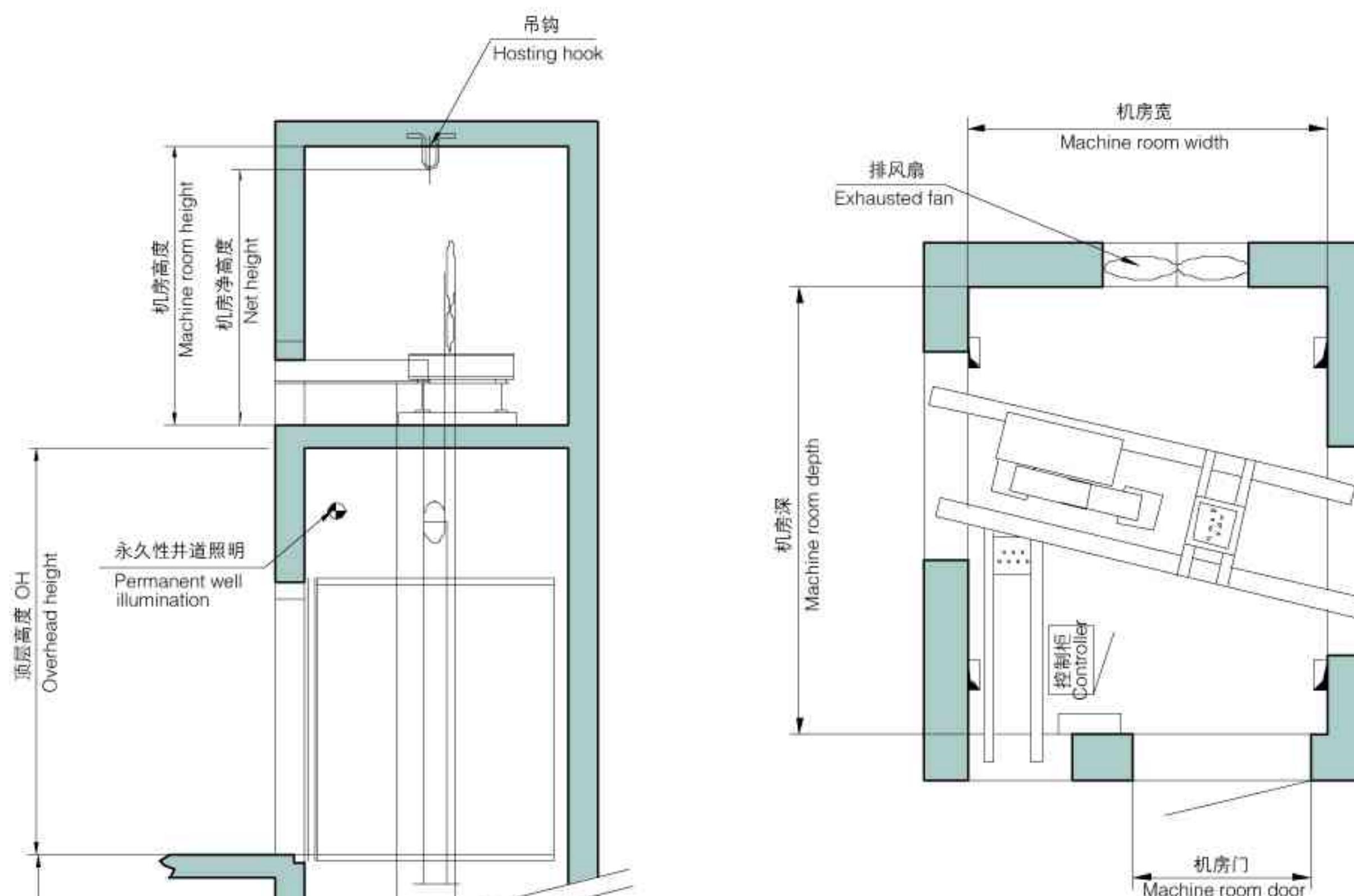
## ◎ KLBS 土建图 KLBS Construction Sketch



井道立面图  
Hoistway section



井道布置图  
Hoistway plan



机房布置图  
Machine room plan

## ◎ 用户应完成的工作 User's tasks

- 1、本图按有关电梯技术标准要求绘制，需方复核后作为电梯安装依据。  
It makes the drawing according to the relevant lift technical standard. It needs to be checked and confirmed by the user before it becomes the lift installation proof.
- 2、机房内通向井道的所有孔洞四周应筑一高50mm以上，宽度适当的台阶。  
It shall have one above 50mm step with the proper width around the holes that lead to the well inside the machine room.
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The buffer base shall be made under the directions of the installers.

## ◎ KLBS 参数表 KLBS Parameter Table

| 主参数 Main specifications            | 载重量(Kg)<br>Loading capacity                            |                      |                      |
|------------------------------------|--|----------------------|----------------------|
|                                    | 1.0  | 1.5                  | 1.6                  |
| 额定速度(m/s)<br>Rated speed           |  |                      |                      |
| 开门尺寸(mm)<br>Door opening size      | 1300   | 1300                 | 1300                 |
| 轿厢尺寸(mm)<br>Car size               | 宽 Width<br>1400<br>深 Depth<br>2400<br>高 Height<br>2450 | 1400<br>2400<br>2450 | 1400<br>2400<br>2450 |
| 井道尺寸(mm)<br>Hoistway size          | 宽 Width<br>2400<br>深 Depth<br>3000                     | 2400<br>3000         | 2400<br>3000         |
| 机房尺寸(mm)<br>Machine room size      | 宽 Width<br>2400<br>深 Depth<br>3000<br>高 Height<br>2500 | 2400<br>3000<br>2500 | 2400<br>3000<br>2500 |
| 顶层高度(mm)<br>Top floor height       | 4800   | 4800                 | 4800                 |
| 底坑深度(mm)<br>Pit depth              | 1500   | 1700                 | 1700                 |
| 最大提升高度(m)<br>Max.travelling height | 60   | 80                   | 80                   |