



# MACHINE-ROOM-LESS FREIGHT AND SERVICE ELEVATOR

# TO MOVE FREIGHT, YOU NEED AN ELEVATOR THAT'S BUILT FOR FREIGHT

To move freight, you need an elevator that is designed specifically for moving freight. That means a powerful hoisting machine. Durability to cope with rough treatment. A smooth ride to handle fragile loads. Leveling accuracy for easy loading and unloading. Wide doors that maximize the usage of space in the car.

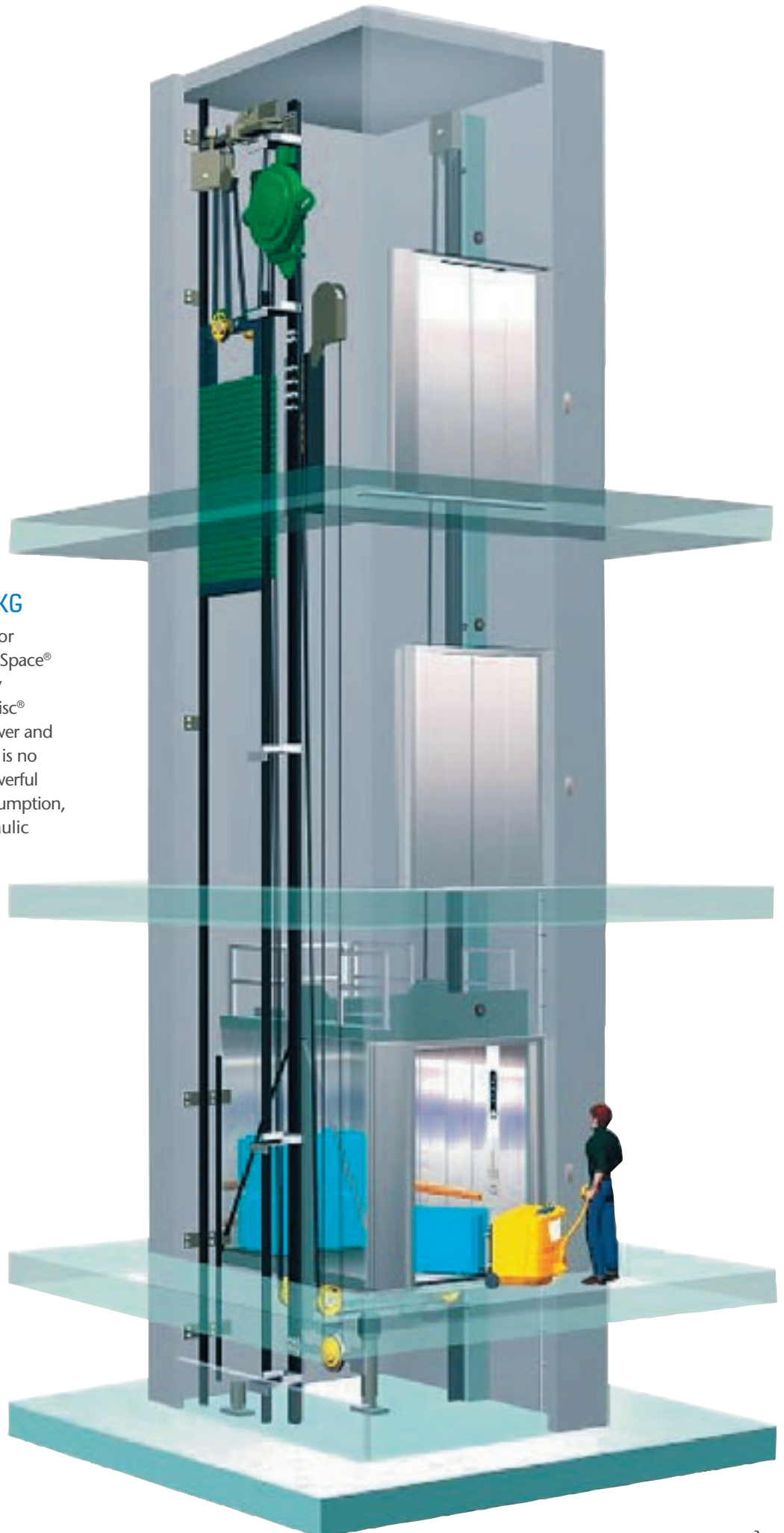
The powerful and high-performance KONE TranSys™ freight elevator solution is ideal for a multitude of demanding vertical freight transportation tasks in a variety of buildings: supermarkets, shopping malls, airports, warehouses, hospitals, hotels, industrial plants and offices.

The new KONE TranSys™ freight elevator brings all of the advantages of machine-room-less elevator technology to the higher range of freight elevators.



## THE POWER TO LIFT 4000 KG

The KONE TranSys™ freight elevator solution is based on the KONE MonoSpace® platform. It incorporates the highly reliable and eco-efficient KONE EcoDisc® hoisting machine for exceptional power and performance. Moving up to 4000 kg is no problem for this workhorse. This powerful machine also reduces electricity consumption, compared with a conventional hydraulic drive.



# OUTSTANDING POWER AND PERFORMANCE

## EXCEPTIONALLY SPACE-EFFICIENT

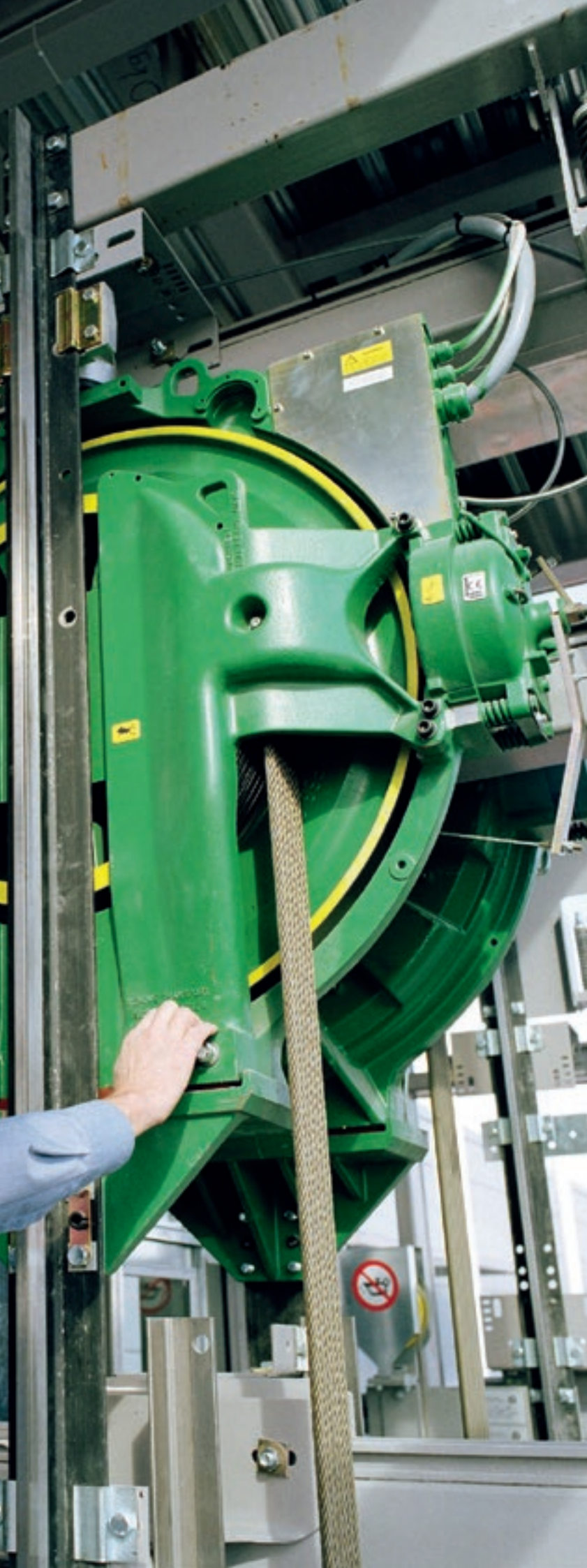
The KONE TranSys™ freight elevator needs no machine-room at all. This means:

- Easier positioning of the elevator in the building
- Reduced building construction time and costs
- More efficient, safer elevator installation processes
- Up to 30m<sup>3</sup> extra building space that can be used more profitably.

## RELIABLE, HIGH PERFORMANCE

The KONE TranSys freight elevator solution provides reliable operation, outstanding traffic performance and a smooth ride. The ride quality is the result of the motor's low rotational speeds. The V<sup>3</sup>F variable frequency drive prevents current peaks and ensures excellent stopping accuracy, making it easier and safer to load and unload.





### **NO OIL AND LOW ENERGY USAGE**

The low friction, gearless construction of the KONE EcoDisc® hoist reduces wear, so it increases the reliability and durability of the machine. KONE EcoDisc is also compact and eco-efficient – it consumes half as much electricity as a conventional hydraulic machine. And no oil is required, reducing fire risk and environmental impact.

### **EASY LOADING AND UNLOADING**

Powered by the gearless KONE EcoDisc machine, the KONE TranSys freight elevator solution features quiet operation, smooth running to protect fragile loads and  $\pm 5\text{mm}$  leveling accuracy to make loading and unloading easier.

### **WIDE LOAD RANGE**

The KONE TranSys freight elevator solution is available in different car sizes to transport freight of various sizes and loads. With a maximum load capacity of 4000 kg, it can meet virtually every freight transportation requirement in a variety of building types.

# SPECIAL DESIGN

The KONE TranSys™ cars and doors are built for the job. The car is finished in stainless or powder-painted steel, protected by buffer rails, and equipped with direct, fluorescent lighting. A second car operating panel is optional and combined with a 400 mm minimum floor-to-floor distance to suit the through-car application.



## MAIN SPECIFICATIONS

Load capacity (kg)	1600, 2000, 2500, 3000, 3500, 4000
Speed (m/s)	Up to 1.0
Max. travel (m)	Up to 40
No. of floors	Up to 12
Control	Down or full collective
Group size	Simplex or duplex
Hoisting machine	Gearless KONE EcoDisc®
Doors	Automatic center opening
Car door height (cm)	2100, 2200, 2300, 2400
Code compliance	EN81-20, EN81-1:1998, EN81-70 and GB7588-2003

# EXTRA-WIDE DOORS

The KONE TranSys™ elevator is equipped with full-width, center opening doors, which retract fully for the easy movement of passengers and goods. Further door area protection includes a curtain of light. The strong double skin door panels are finished in stainless, powder-painted steel or zinc coated steel.



## SUPERIOR PERFORMANCE, COMPARED WITH CONVENTIONAL HYDRAULIC DRIVE

Case example, Load 2000 kg/0.5 m/s	Conventional hydraulic	Gearless KONE TranSys™
Speed (m/s)	0.6	0.5
Motor power (kW)	28	6
Starting current (AMP)	112 S/D	18
Main fuse size (AMP)	63	16
Power consumption (kWh) > 100,000 starts/year	10.400	5800
Thermal losses (kW)	5.8	1.9
Oil requirements (L)	240	0
Noise (dBA)*	Typically 70	Less than 55
Machine room (m <sup>2</sup> )	6	0

\* Measured 1 m from machine.

# A WIDE CHOICE OF DURABLE INTERIOR MATERIALS

## CAR OPERATING PANEL (COP)



Full height COP  
Brushed stainless steel faceplate



## HALL INDICATOR (HI)



KDS 50

## HALL LANTERN (HL)



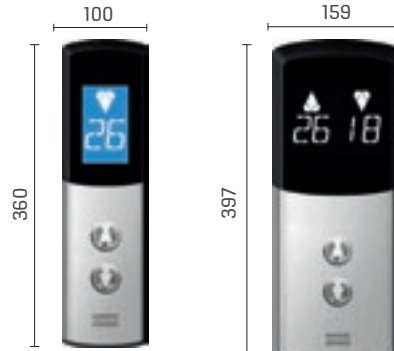
KDS 50

## LANDING CALL STATION (LCS)



KDS 50

## LANDING CALL STATION WITH INDICATOR (LCI)



KDS 50  
Simplex

KDS 50  
Duplex

Note:  
For full landing  
signalization  
offering please  
see detailed  
signalization  
marketing  
brochures or  
contact our  
sales person.

## CEILING



Type: **LF1**  
Finishing: PP10 White painted RAL 9010  
Lighting: T5 fluorescent tubes



Type: **CL88**  
Finishing: Silver brushed stainless steel (ST4)  
Silver brushed stainless steel (ST43)  
Lighting: LED spot



Type: **CL91**  
Finishing: Silver brushed stainless steel (ST4)  
Silver brushed stainless steel (ST43)  
PP10 White painted RAL 9010  
Lighting: T5 fluorescent tubes

## CAR BUFFER RAILS



**BR1**  
Steel



**BR1**  
Wood

## HANDRAIL



**HR61**  
Round silver brushed



**HR64**  
Bended silver brushed  
▪ EN81-70 compliant  
▪ AS1735.12 compliant  
▪ G compliant

## WALL MATERIALS

### Painted steel



**PP18**  
Linen Brown



**PP20**  
Wool Gray

Available for Car door  
and Landing door

### Brushed stainless steel



**ST4**  
Silver



**ST43**  
Silver

### Textured steel



**TS2**  
Flemish Linen

## FLOOR MATERIALS

### Rubber



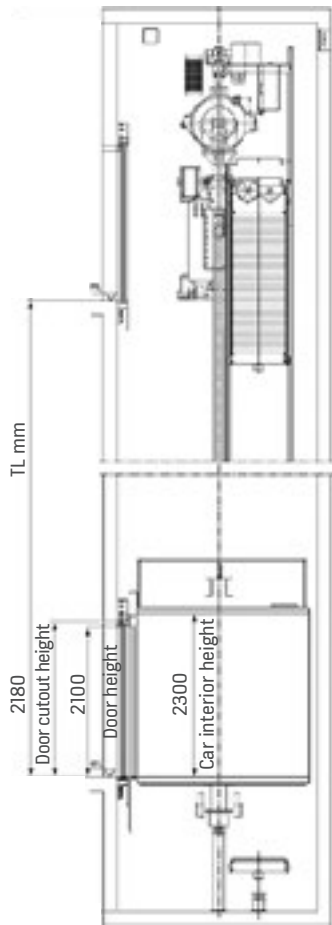
**RC7**  
Black Coin Pattern

### Zinc coated steel

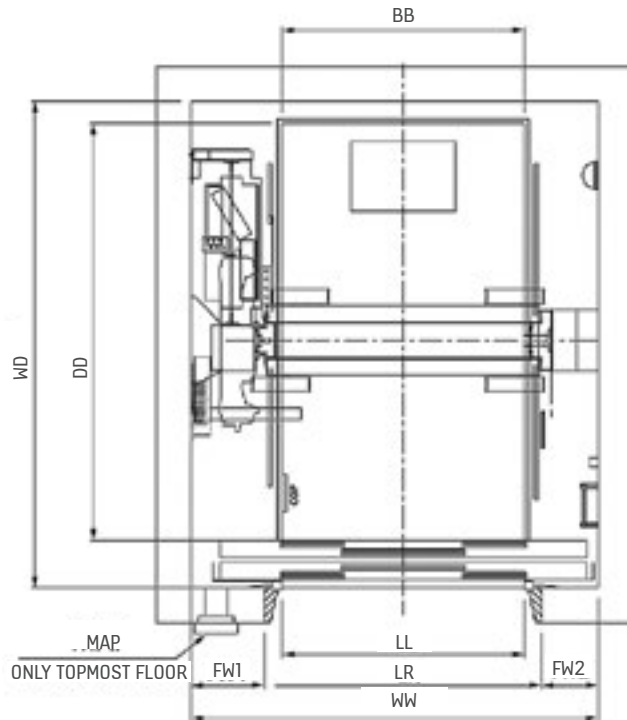


**FE-1**  
Tear Plate

# PLANNING GUIDE



Shaft dimensions



Shaft plan

## DIMENSIONS IN HORIZONTAL SECTION WITHOUT FRONT WALL\*

Max. load (kg)	Car size (mm)	Car type	Shaft width (mm)	Shaft depth, nominal (mm)	Door width, nominal (mm)
1600	1400 x 2400	SEC	2350	2800	1400
1600	1400 x 2400	TTC	2350	2950	1400
2000	1500 x 2700	SEC	2500	3100	1500
2000	1500 x 2700	TTC	2500	3250	1500
2500	1800 x 2700	SEC	2900	3080	1800
2500	1800 x 2700	TTC	2900	3250	1800
3000	2000 x 2750	SEC	3285	3130	2000
3000	2000 x 2750	TTC	3285	3300	2000
3500	2100 x 3000	SEC	3360	3290	2100
3500	2100 x 3000	TTC	3360	3370	2100
4000	2100 x 3400	SEC	3360	3690	2100
4000	2100 x 3400	TTC	3360	3770	2100

## DIMENSIONS IN VERTICAL SECTION

Max. load (kg)	Car interior height (CH)	Pit depth (PH) nominal (mm)	Overhead (SH) nominal (mm)
1600/2000	2200	1450	3900
1600/2000	2300	1450	3900
1600/2000	2400	1450	3900
2500/3000	2200	1600	4100
2500/3000	2300	1600	4200
2500/3000	2400	1600	4300
3500/4000	2200	1800	4200
3500/4000	2300	1800	4200
3500/4000	2400	1750	4300

\* Car with front wall is also available as standard. Correspondent dimensions are available in technical documentation for sales documents.

### Car types:

TTC = Through Type Car (front and rear opening)

SEC = Single Entrance Car

# CONTROL SYSTEM FEATURES

## 1. SAFETY FEATURES

### Rescue and failure detection

COD	Correction drive feature
MOP TC	Motor Protection
PDD N	Phase failure detection
RDF RC	Recall drive, drive buttons up and down, extra run button to enable
EEC C	Emergency exit contact in car
DTS	Drive time supervision
LOA M	Locking of automatic car door, mechanical lock
DZI N	Door zone indication, no buzzer

### Precautions for special emergencies

FID AO	Fire detection, whole building, alternative return floor, doors open
FID BO	Fire detection, whole building, doors open
FID SO	Fire detection, manual switch, doors open
FRD	Fireman's drive

### Operation during stand-by power and recovery from power break

EBD A	Emergency battery drive, automatic
LPS TN	Elevator position synchronising, terminal floor, nominal speed
CEL S	Car emergency light, separate light
EBS S	Emergency battery supply with supervision
EPD MCF	Emergency power drive, to main floor, doors closed, full service

### Means of emergency communication

ABE C	Alarm bell under/top of car
ABE M	Alarm bell at main floor
ISE F	Five-way intercom system
ISE N	Net intercom system

### Other safety features and maintenance

BOF	Buttons to operate car doors for service purposes
CCM A	Car calls from machine room, all floors, also landing calls
CDC	Car door contact
CDL O	Car door limit switches, separate open limit
DOP	Door opening prevention switch in Maintenance Access Panel
EMH O	Emergency stop switch in well, one switch
EMR	Emergency stop switch on car roof
OSG C	Overspeed governor
OST T	Overspeed governor test
SED WSR	Service Drive, without limitations, car roof buttons with extra run buttons
SGE	Safety gear contact
TWS C	Tension weight switch of overspeed governor, car
LCD	Landing calls disconnect

## 2. PASSENGER COMFORT FEATURES

### Entering and exiting

ACL B	Accurate Relevelling, Doors Open
NUD S	Nudging Service, shortened time by counting stops
DCB	Door close button
DCB I	Door close button with indicator
DOB O	Door open button, normally open
DOB OI	Door open button with indicator
QCC	Quick close from new car call
SRC RNC	Curtain of light
REO O	Reopen by landing call

### Protection against inconvenience caused by misuse

FCC	False Car Call Cancelling
LCC	Landing Call Cross Coupling
SPB BP	Stuck push button supervision
CCB	Car Calls Backwards

### Traveling comfort, including ventilation and light

OCL A	Operation of car light
OCV A	Operation of car ventilation, automatic
OCV AF	Operation of car ventilation, automatic, switch to turn off
LWD	Load Weighing Device
CLS O	Car Light Supervision

## 3. SECURITY FEATURES

### Anti-burglary

LOC E	Locking of car calls, reopen devices inoperative in closed doors, mechanically
LOC O	Locking of car calls, reopen devices operate normally
LOL E	Locking of landing calls, reopen devices inoperative in closed doors, mechanically
LOL O	Locking of landing calls, reopen devices operate normally
FRE	Fast recall

## 4. CONTROL FEATURES

### Adaptation to building

BMV R	Braking method of V <sup>3</sup> F-drive
CLF C	Car light fuse and car light main switch
MAF C	Main fuses control panel
MAS C	Main switch in control panel
FCS L	Failure current switch, one phase for lighting
TTC CTS	Through type car

### Priority services and service modes for special use

DOE B	Door open with extended time
OSS COI	Out of service switch in car, doors open, lights on, indication
OSS LC	Out of service switch at landing, doors closed, lights off
PRC K	Priority operation
PRL LA/LO	Priority at landings, low priority, all car calls/ one car call
ATS C	Attendant service, using car call buttons as indicators

### Parking of free cars

PAD C	Parking at pre-defined floor, doors closed
PAM C	Parking at main floor, doors closed
PAS C	Parking at secondary floor, doors closed

### Real-time adaptation to prevailing traffic

IDP	Intensive down peak
ITP	Intensive two way peak
IUP	Intensive up peak
BLF	Bypass load function

## 5. INFORMATION FEATURES

### Information to passengers at landing

CPI EO/LO	Car position indicator at entrance floor/landings, dot matrix
GOL ETD	Acoustic device for arrival, at landing
LCL	Landing call registered light
LAL DB	Lanterns at landing, at deceleration points, switch on if no DIR

### Information to passengers in car

ACU F	Interface, loudspeaker with interface for announcement device
CCL	Car call registered light
CPI CO	Car position indicator in car, dot matrix
CRB C	Car call registered buzzer
DIA C	Direction arrows in car
OLF C	Car overload function

### Information in Maintenance Access Panel

CPI PS	Car position indicator in maintenance access panel
SCN N	Start counter, number of starts, not loosing data in power failure
DAL GP	Disturbance alarm
TSD ES	Traffic supervision display, with LEDs, in supervision room
LIL AM	Lift link, alarm, mode signals
LIL AMB	Lift link, alarm, position binary
KONE E-LINK™	Elevator Monitoring and command system
CRM D/DV	KONE China Remote Monitoring, data transmission and voice alarm service

Black font: Standard built in features

Blue font: Optional features

KONE provides innovative and eco-efficient solutions for elevators, escalators, automatic building doors and the systems that integrate them with today's intelligent buildings.

We support our customers every step of the way; from design, manufacturing and installation to maintenance and modernization. KONE is a global leader in helping our customers manage the smooth flow of people and goods throughout their buildings.

Our commitment to customers is present in all KONE solutions. This makes us a reliable partner throughout the life cycle of the building. We challenge the conventional wisdom of the industry. We are fast, flexible, and we have a well-deserved reputation as a technology leader, with such innovations as KONE MonoSpace®, KONE NanoSpace™ and KONE UltraRope®.

KONE employs close to 52,000 dedicated experts to serve you globally and locally.

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