



ELEVATOR DOORS
AUTOMATIC ELEVATOR DOOR
MARATHON 200

DOOR SERIES MARATHON 200

DOORS PROTECTED AGAINST
VANDALISM ACC. EN81-71

INDUSTRIAL DESIGN

CABIN DOOR GENERATION 2

HIGH PERFORMANCE DOORS

DOOR DRIVE UNITS LDO AC 4.0
AND LDO AC 4.5

POSSIBLE SOLUTIONS FOR
MODERNISATION PROJECTS

ETG ELEVATOR
TRADING

German manufacturer

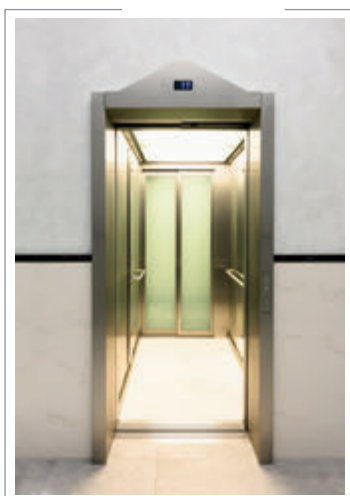
Quality for sure – elevator doors Marathon 200

Elevator doors of type “**Marathon**” – a long lasting approved, solid door type, which attains quality and stability through its above-average of raw of materials and also offers customer-orientated solutions through its various installing possibilities and product variety:

- assembly at the shaft wall - Portal System 30 (120mm installation depth, using in shaft towers or in a concrete shaft)
- assembly in a niche – with advanced portal frame, portal System 55 (100mm installation depth, using in concrete shaft or glass elevators)
- modernisation package
- variety of standardized and individual solutions of portal frames in steel and/or glass
- mounting of the cabin door at still existing revolving doors
- combination of standard door with modernisation door possible

Product diversity in detail:

- different special designs (on request): e.g. extension of portal frames also available as glass portal, coverings of the mechanics, frames and door panels at the shaft side
- reinforced aluminum and canted stainless steel sills for charges up to 1000 kg as well as heavy load sills zinced or stainless steel up to 5000 kg wheel load
- stainless steel sill with a hidden door panel guidance
- cabin door generation 2 (KTG2) with maximum height of brace unit above clear door height with LDO AC 4.0 of 373mm and with LDO AC 4.5 408mm (6PCO 488mm)
- landing door with reduced cross bar height (230mm at 2PSO) for low floor distances or mounting in a niche
- apron zinced or stainless steel
- supervision of emergency interlock



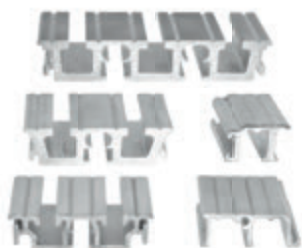
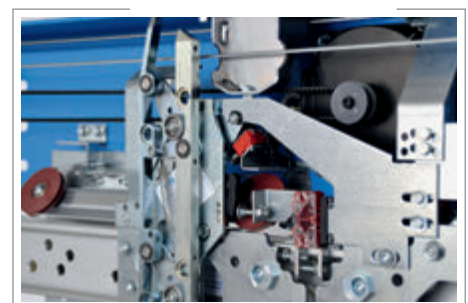
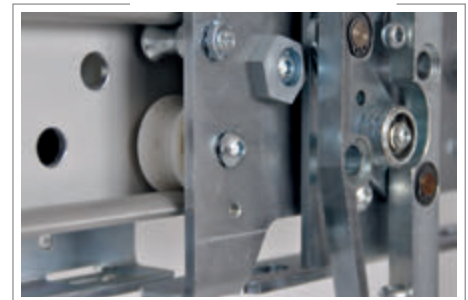
TYPE APPROVAL TESTED



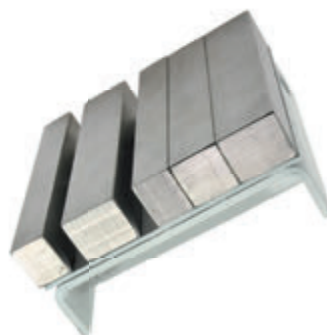
- sill heating
- mechanical cabin door lock
- design of shaft door in IP54
- stainless steel door panels covered or in solid matter
- light grid with adapter kit
- standard slide block, comfort slide block and heavy load guides
- special design according to specific requirements of customer
- logo and labeling of glass doors optionally possible: sandblasted with anti-fingermark, painted on glass, glued with foil at the rear side of glass
- colored glass or colored foil between the glass panels
- cabin doors with mechanical unlock device of folding door
- modernisation door 2PSO/2PCO/4PCO
- slim cabin door 2PSO (65mm sill incl. cabin entry)

The Marathon 200 doors are characterized by the following quality features:

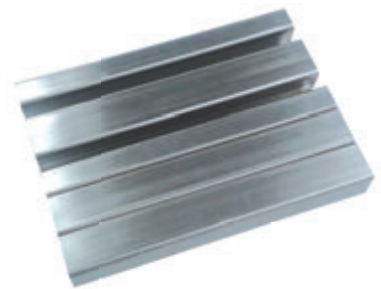
- solid design, robust construction of the cross bar
- only 1 door drive will be needed also at very high and heavy doors
- long service-life because of high-quality material
- low attrition
- door systems for passenger and freight elevator
- different fields of application possible
- quiet running because of tooth belt drive
- solid aluminum slide rail profile and high definition pulleys
- easy to assemble and initial operation through factory-setting pre-adjustment
- design of Marathon doors according to the Directives EN81-20/50, EN81-71, EN81-72, DIN18091, EN81-58 E120 and E160 (steel plate doors), EN81-58 E90 with portal extensions, TÜV controlled and supervised
- type-examination tested, CE-marking, EG declaration of conformity



Design of aluminum sills
with additional profile 30/55mm



Heavy load sill
with additional sill



Stainless steel sill
with additional sill

Door types in different designs and surface designs

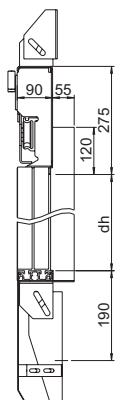
- steel doors primed, powder coated or rather painted in different RAL colors, stainless steel designs in different designs
- glass doors with circular frame or glass door panels held above/below
- door panels with glass inserts or bull's-eye

Door types in various door widths and heights

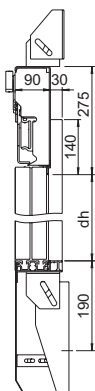
- one side opening 2 or 3 panels (2PSO, 3PSO) telescopic doors
- central opening 2, 4 or 6 panels (2PCO, 4PCO, 6PCO) doors



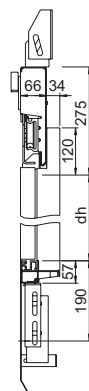
Landing doors Marathon 200



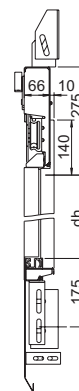
landing door
portal system 55
2PSO, 2PCO, 4PCO



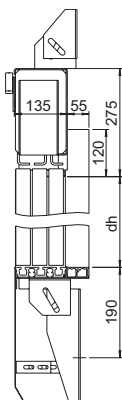
landing door
portal system 30
2PSO, 2PCO, 4PCO



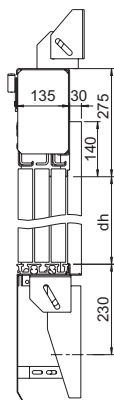
landing door
portal system 55
2PCO slim



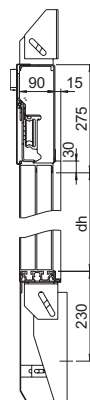
landing door
portal system 30
2PCO slim



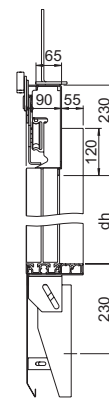
landing door
portal system 55
3PSO, 6PCO



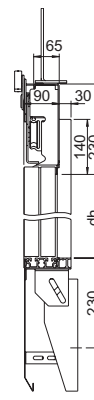
landing door
portal system 30
3PSO, 6PCO



landing door
modernisation
2PSO, 2PCO, 4PCO



landing door
portal system 55 with
reduced cross bar
height 2PSO



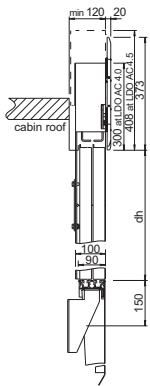
landing door
portal system 30 with
reduced cross bar
height 2PSO

design	type	Marathon 200	fire protection certification / available sizes	available door widths in mm		available door heights in mm	
				min.	max.	min.	max.
door panels primed or stainless steel	2PSO U/r		- DIN 18091 acc. directive - EN81-58 E120 (EI60: on demand): dw700-1400mm - dh2000-2500mm	700	1400	2000	2500*
	3PSO U/r		- DIN 18091 acc. directive - EN81-58 E120 and EI60: dw600 - dh2000-2300mm, dw700-1400mm - dh2000-2600mm	600	2100	2000	2600*
	2PCO/ 2PCO slim		- DIN 18091 acc. directive - EN81-58 E120 (EI60: on demand): dw700mm - dw1400mm dw2000mm - dh2500mm	700	1400	2000	2500*
	4PCO		- DIN 18091 acc. directive - EN81-58 E120 (EI60: on demand): dw800-1300mm - dh2000-2100mm, dw1400-1500mm - dh2000-2300mm, dw1600-2800mm - dh2000-3100mm	800	2600*2	2000	3100*
	6PCO		- DIN 18091 acc. directive - EN81-58 E120 (EI60: on demand): dw1200-1300mm - dh2000-2300mm, dw1400-2300mm - dh2000-2500mm, dw2400-2600mm - dh2000-2900mm, dw2700-3100mm - dh2000-3100mm	1200	3500*2	2000	3100*
modernisation door steel plate door panel primed or stainless steel	2PSO U/r		DIN 18091 acc. directive	700	1400	2000	2300*
	2PCO		DIN 18091 acc. directive	700	1400	2000	2300*
	4PCO		DIN 18091 acc. directive	800	1600	2000	2300*

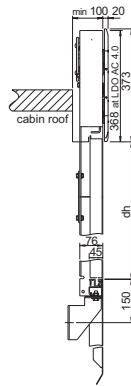
* door height depending on door width, dw = door width, dh = door height, *2 further door widths and heights on demand

The cabin and landing doors are compatible with each other.

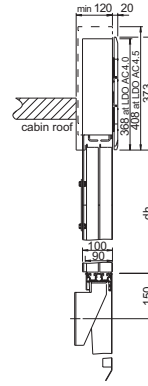
Cabin doors with interlock Marathon 200



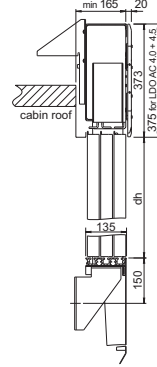
cabin door
2PS0/2PCO



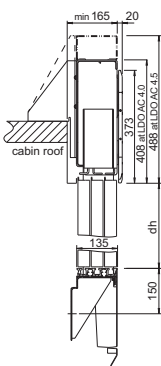
cabin door
2PCO slim



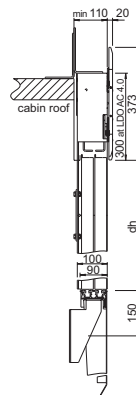
cabin door
4PCO



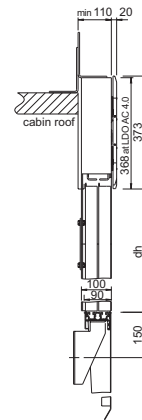
cabin door
3PS0



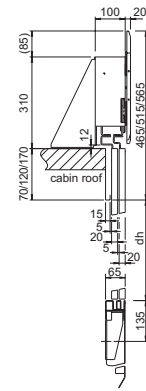
cabin door
6PCO



cabin door
MOD
2PS0/2PCO



cabin door
MOD
4PCO



slim cabin door
2PS0

design	type	Marathon 200	available door widths in mm		available door heights in mm	
			min.	max.	min.	max.
glass door panels all side framed	2PS0 l/r		700	1400	2000	2500*
	2PCO/ 2PCO slim		700 700	1400 1100	2000	2500*
	3PS0 l/r		800	1600*2	2000	2500*
	4PCO		900	2600*2	2000	2500*
	6PCO		1500	3000*2	2000	2500*
glass door panels held above and below	2PS0 l/r		700	1400	2000	2300*
	3PS0 l/r		1100	1400*2	2000	2300*
	2PCO/ 2PCO slim		700 700	1400 900	2000	2300*
	4PCO		1400	2400*2	2000	2300*
	6PCO		2100	3000	2000	2300*

Glass doors have no fire-proof certification!, * door heights depending on door width, *2 further door widths and heights on demand

Elevator doors according to EN 81-71 safety precautions against vandalism

According to the lift standard EN81-71 for protection against vandalism, buildings and elevators will be divided into 3 categories based on their usage and the expected wanton destruction:

0 = rare and slight damage like it is possible in every building

(office, hotel, mall)

1 = betimes and measured vandalism

(hotels in critical districts, office with many visitors)

2 = heavy vandalism / robust accomplishment is claimed

(every public building in critical districts, event halls)

As a long lasting experienced door expert, the **ETG Elevator Trading GmbH** reacted on these accomplishments and can provide the certified door type Marathon in all categories.

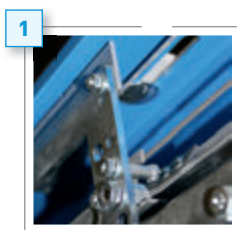
Categories 0 and 1

Landing door

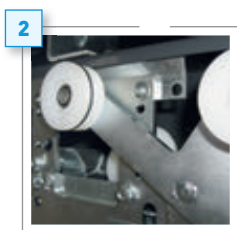
- adapted retaining device in case of breakdown of the upper guiding
- reinforced sliding carriage, massive upper door panel fastening and reinforced lower door panel guide
- changed door panel construction to abolish the impact energy
- door panel size 1,5mm with additional stiffening
- doors fulfil fire protection demand according to EN81-58

Cabin door

- reinforced sliding carriage, massive upper door panel fastening and reinforced lower door panel guide
- door panel size 1,5mm with additional stiffening
- special door panel construction to abolish the impact energy



1
reinforced sliding carriages with adapted retaining device at the safety rail



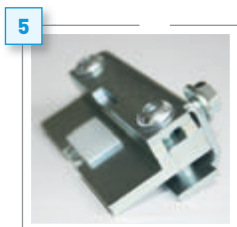
2
adapted retaining device at the sliding carriage to the cross bar in case of breakdown of the upper guide



3
massive door panel fastening above



4
reinforced door panel guide below (in categories 0, 1 and 2)



5
SLS guide

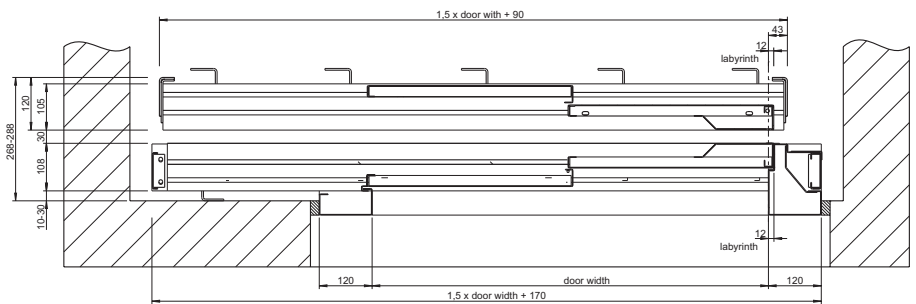
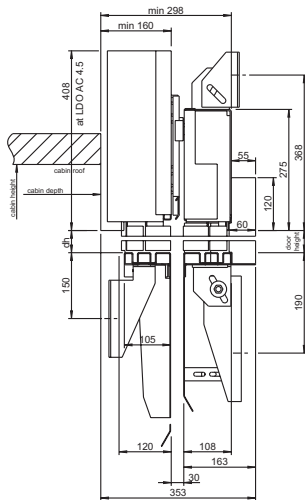


6
reinforced door panel stiffening and reinforced door panel guide (category 2)



Elevator doors according to DIN EN 81-71 › 2 panel one side opening landing and cabin door

Landing and cabin door 2PS0 EN81-71 Category 2



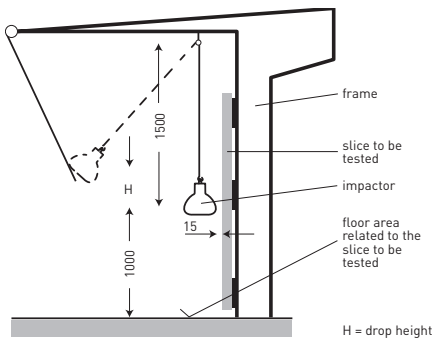
Category 2

Landing door

- same basic construction as categories 0 and 1
- covering of cross to protect the mechanic
- electrical protection of the emergency device
- door panel size 2,0mm with edging for grip protection
- closing edge with labyrinth
- door frames, door panels and sills out of stainless steel 1.4301 (AISI 304)
- doors fulfil fire protection demand according to EN 81-58

Cabin door

- same basic construction as categories 0 and 1
- covering of cross bar to protect the mechanic
- door panel size 2,0mm with edging for grip protection
- closing edge with labyrinth
- door panels and sills out of stainless steel 1.4301
- frame at closing edge as a part of the cabin door
- with cabin door interlock



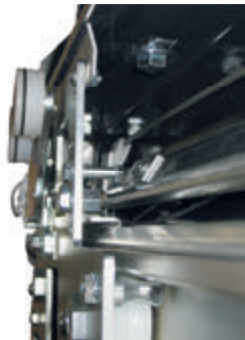
pendulum impact test requirements completely fulfilled

available door widths according to EN 81 - 71 in categories 0, 1 and 2 incl. EN81-58

type	door width (mm)																
2PS0 (2-panel side opening)	700	800	900	1000													
3PS0 (3-panel side opening)	700	800	900	1000	1100	1200	1300	1400	1500								
2PCO (2-panel central opening)	700	800	900	1000													
4PCO (4-panel central opening)	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000						
6PCO (6-panel central opening)	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000

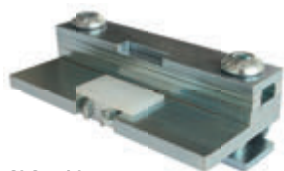
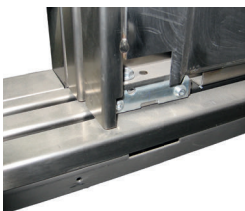
door height 2000mm and 2100mm (further doors widths and heights on demand with manufacturer's declaration)

Doors for industrial use › Landing and cabin doors



reinforced sliding carriage
with adapted retaining
device at the safety rail

heavy load guidance
for industrial use



SLS guide
for industrial use



door for industrial use (sample)



door for industrial use
(sample)



hanging device of door panel,
sample of door for industrial use



heavy load sill
with additional sill

Following characteristics can be chosen separately depending on customers demand:

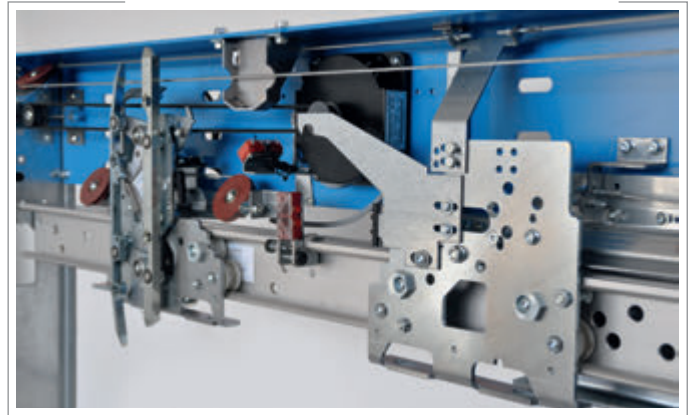
- reinforced standard door panels with additional stiffenings or special door panels in 1,5mm or 2mm sheet plate thickness
- door frame with 2mm sheet plate thickness
- heavy load sill guidances below
- reinforced sliding carriages + slide rail
- additional continuous fastening angle below
- reinforced lateral pieces
- heavy load sill in solid material for wheel load up to 2,5 to (5 to) in galvanised material or stainless steel
- solid material stainless steel door panels, also in reinforced design
- 3rd door panel fixation above and 3rd door panel guidance below (depending on door width)
- higher quantity of idle pulleys (depending on door width)

Cabin door Generation 2

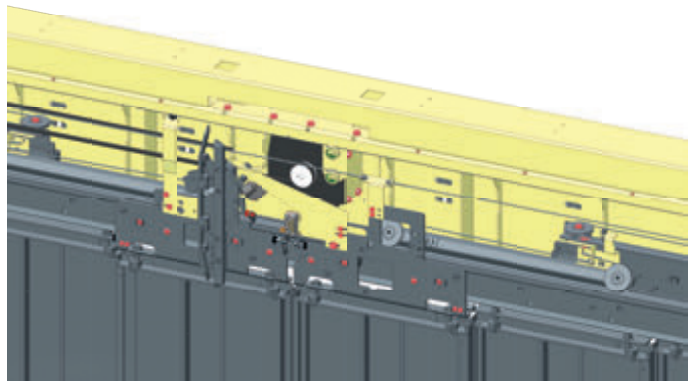
- mechanic with gearless door drive unit, composing of brushless synchronous motor and frequency-controlled door control unit
- in cross bar integrated motor
- incl. mechanical cabin door interlock

Customer advantages:

- significant reduce of mechanical components
- eased assembly, bringing into service, maintenance and service
- reduce of tooth belt length to its minimum
- always 180° belt enlacement
- prevention of pollution and damage
- cost reduction



KTG2 with LDO AC 4.0



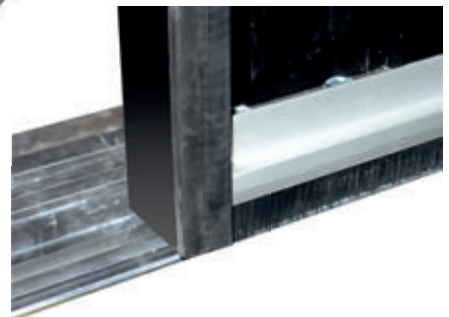
KTG2 with LDO AC 4.5

Elevator doors Marathon 200 - High Performance design for superior and high frequented elevator installations

optional design „High performance“ > separately choosable

Landing and cabin door Marathon 200

- special idle and supporting pulleys with special ball-bearing with inner pulley diameter = 57mm
- reinforced door panels, also in stainless steel
- up to 4 pcs. below door panel guidances per each door panel
- rubber profile at closing edge
- reinforced aluminium sill
- continuous fastening angle below
- closing weight
- door panel with below brushes in sill area



Door drives LDO AC 4.0 and LDO AC 4.5

Features and advantages of LDO AC 4.0 and LDO AC 4.5

- **gearless drive unit**, consisting of **brushless synchronous motor** with a special adapted, frequency-controlled control system, ensuring extremely efficient operation
- door control systems uses automatically an optimised motion profile depending on door width determination, thanks to an automatic door panel mass determination unit
- readiness indication by LED
- automatic door width determination
- automatic identification of rotating direction of coder and motor
- LDO AC 4.0 up to 200kg moved masses / LDO AC 4.5 up to 450kg

Specifics

- start-up and control are possible without additional parts
- smart obstacle memory protects mechanical elements during repeated door closing
- error indications using 2 blinking LEDs
- the door drive may be controlled directly or using a lift control relay
- professional optimisation of the motion profile via a WLAN interface, a mobile phone, a tablet PC or a laptop

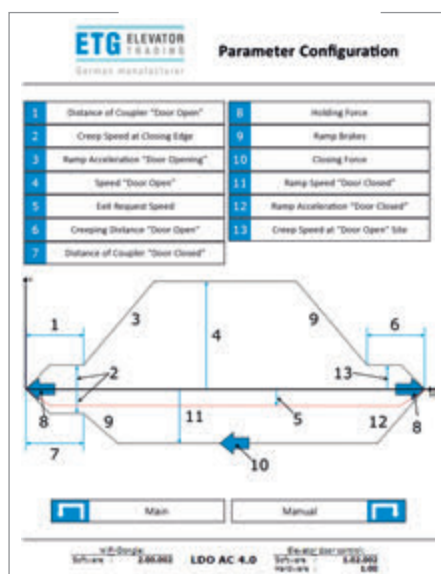


LDO AC 4.5 motor



LDO AC 4.0 motor

- **CANopen interface**
 - for signal input of door drive unit
 - for signal output of status message
 - for process monitoring and evaluation

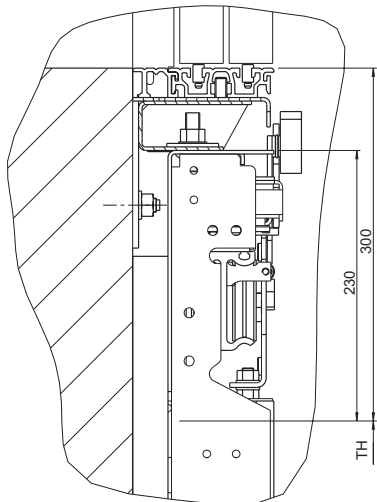
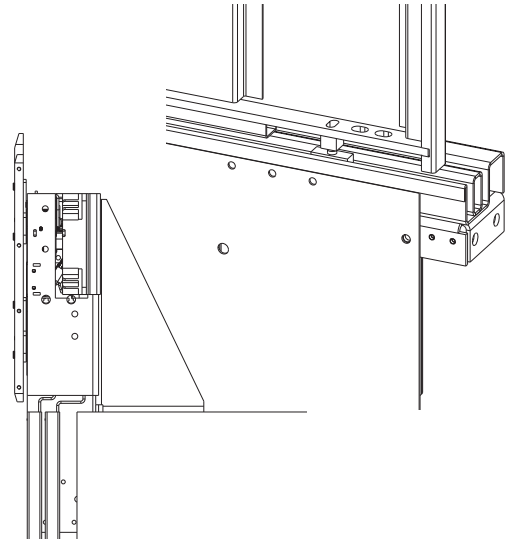


Further information see brochure of door drive units.

Possible solutions for modernisation projects

Small cabin door incl. mechanical cabin door interlock acc. to EN81-20

- door width from 700 to 1400mm at 2PSO doors, door height 2000 and 2100mm
- 65mm stainless steel sill 1.4301 (AISI304) standard incl. cabin entry
- slim door panels of 20mm thickness
- door mechanic will be installed on top of cabin roof or will be integrated in cabin roof (upon agreement)
- installation at reduced shaft depth, where every millimetre counts
- your choice for conversion and modernisation projects

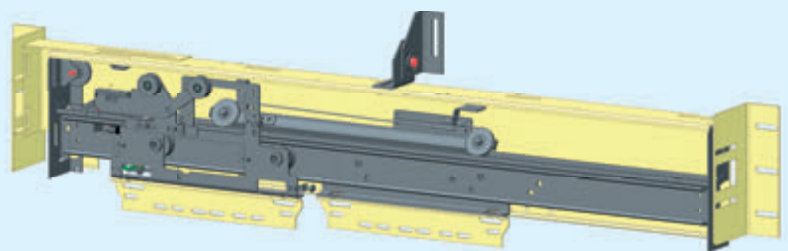


Installation of landing door with reduced floor distance

- possible reduction of floor distance up to 300mm
- use of door mechanic with cross bar height 230mm at 2PSO doors (=2panel side opening)
- charge of sills 300kg (higher charge on demand)
- application e.g. at basement doors (no more differences in height to the other landing doors)
- solid-built fastening angle, mounted over total door width

Conversion kit „mechanic mod kit“

- modernisation of existing landing doors combined with new cabin door Marathon 200
- door width 800 and 900mm 2PSO doors (=2 panel side opening), further door width and door types on demand)
- only replacement of landing door mechanic, no more construction works necessary
- sills, door panels and frames will be remained from existing landing door
- incl. adapter for door panel fixation
- incl. solid wall brackets for fixation of door mechanic
- connection to the existing triangular-unlocking possible with 3 different options
- optional with additional cabin door interlock





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