

## 1. Description of the lift

The MERT ASANSÖR is a machine room concept. The machine is installed in a separate machine room above of the well. The machine room contains the electric drive, the control panel and the maintenance panel.

The suspension is of the topslung type with a reefing factor 1:1. The machine is mounted on a base with brackets which is fixed on concrete.

The main characteristics of the layout are given in figure 1 and on the next pages. For more details we refer to the technical file.

The main characteristics concerning the model description are listed on the next pages.

## 2. General Description

General data									
Rated loads		400kg	450kg	630kg	800kg	1000kg	1150kg	1250kg	
Max. number of persons		5	6	8	10	13	15	16	
Rated speeds[m/s]		1.0							
Max. Travel Height [m]	1.0m/s	50							
Max. Number of floors	1.0m/s	16							
Max. Interfloor Distance		11m							
Min. Interlfloor distance		2,7m							
Max. Lifts in Group		2							
Control Panel, maintenance panel and drive		Inside the machine room above of the well							
Roping factor		1:1							
Well									
OH[m] min	1.0m/s	4,15				4,6			
PH[m]min	1.0m/s	1,4				1,6			
Structure of the well		Reinforced concrete and other forms of construction are possible (e.g. steel structure or steel with glass), partial enclosed well							
Door dimensions	DW	700mm–1100mm							
	DH	2100mm							
Landing Door type		Two panel central opening							
Landing door panel manufacturer		Same as the installer							
Door safety device		Curtain of light							

Ropes type		8 x 19S+FC									
Ropes Core		Fibre (FC)									
Number of ropes	1.0m/s	4			5			7			
Diameter of ropes		Φ8		Φ10							
Min. Braking Load [KN]		28.1		44.0							
Calculated Weight [kg/m]		0.222		0.347							
Max Total Car Weight [kg]	1.0m/s	617	780	1120	180	1159	1390	1570			
Car guide rails	1.0m/s	T75-3/B	T75-3/B		T82-3/B		T89/B, T90/B				
Max. bracketing distance car guide rails [mm]		2000									
CW guide rails	1.0m/s	TK3	TK3		TK5A						
Max. bracketing distance CW guide rails [mm]		2000									
Guide rails description		Hollow type: TK3:75x55x10 mm TK5A:78x60x16.4 mm Massif type: T75-3B:75x62x10mm T82-3/B:82.5x68x15.88mm T82/B:89.5x68.25x9 T89/B:89x62x15.88mm, T90/B:90x75x16mm T114/B:114x89x16mm									
Compensation means		Compensation chain shall be provided									
Car											
Car sling type		Drawings No.: TPN 01 / TPN 02 / TPN 03 / TPN 04 / TPN 05									
Manufacturer		Same as the installer									
Car guiding		Guide shoes or rollers									
Car Height [mm]		2550									
DBG[ mm]		1240		1540		1740	1960	2110			
Max Car Area [m²]		1.164	1.274	1.585	1.895	2.312	2.585	2.765	3.005		
Diverting pulley on Top		Φ400 / Φ440 / Φ520 / Φ540									
Door car panel manufacturer		Same as the installer									
Door car type		Two panel central opening with mechanical lock									
Ends of Ropes on Car Side		Metal self-tightening wedge type sockets									
Entrance		Single									
Car operating panel		One									
Car finishing of floor		Steel									

Performance of the wall	Stainless steel										
Load control device	Inductive sensor between car and car frame										
Safety gear	Bottom of sling										
Counterweight											
CW sling type	Drawings No.: TPN 01 / TPN 02 / TPN 03 / TPN 04 / TPN 05										
Manufacturer	Same as the installer										
CW guiding	Guide shoes or rollers										
Location of CWT	Side of car travel (left or right)										
Ends of Ropes on CW Side	Metal self-tightening wedge type sockets										
DBG[mm]	1000			1200		1400					
Net weight (frame + pulley )	60 – 120 kg										
Diverting pulley on top	Φ400 / Φ440 / Φ520 / Φ540										
Balancing factor	50% for 400kg & 450kg / 48% for other models										
Safety gear	Not possible										
Drive System											
Machine type	AKIŞ AK SERIES,AKIŞ VOLPİ SERIES,AKIŞ MÜGEN SERIES EKER QUIET 2,3,4,STRONG SERIES,MONTANARI M,PENTA SERIES CSAG T-FLAT,E240,DE,MV,K,M,W E,D SERIES KİNİTEK WJC,K2,K5,ALBERTO SASSI LEO,MODY,MF SERIES										
Machine base	Drawing No.: TPN 01 / TPN 02 / TPN 03 / TPN 04 / TPN 05 / base fixed on concrete										
Motor temperature control	P.T.C Protection										
Traction pulley type	V with undercut										
Traction Pulley diameter	Φ320		Φ400 / Φ410 / Φ450, / Φ500, / Φ520								
Wrap angle (min)	1.0m/s	160°	160°	169°	160°	160°	163°	165°	163°		
Undercut angle	90° / 95°										
Brake	Drum, double acting										
Leveling accuracy	Typical ±5mm										
Rescue operation	Manual release of brake										
Electrical equipment											
Control	See PCB										
Electrical Drive	VVVF (Variable Voltage Variable Frequency)										
Wiring in the well	Wires and cables in trucks, properly bundled and supported at fixed distance										
Inspection control	Permanently connected control station on car roof and inside the pit										
Light power supply	230VAC										
Safety chain supply	220 VAC (FUSE F3 / glass max. 3A)										
Alarm device	Two-way voice communication device										

### 3. Safety Components

	<i>Type, Notified Body, EU-Type Examination Certificate of the Safety component and applicable range</i>
Overspeed governors	<p>SELKAS SLK,SLK,SLKA,SLKM / MIRTEC - 0437 / LF/KSA/A-C-0025/17 nominal speed range <math>\leq</math> 1.0m/s</p> <p>PUKKALIFT PUK/ SZUTEST - 2195 / 2195-LD-2210801 nominal speed range <math>\leq</math>1.0m/s</p> <p>KALKAN MKL-CH, MKL-A3,MKL-MD / D Kare - 2528 / LDsq08-0724-0035-20 nominal speed range <math>\leq</math>2.50m/s</p> <p>ERKANLIFT EL-R/RA3/R2K / D Kare - 2528 / LDsq08-0127-0002-20 nominal speed range <math>\leq</math> 2.50m/s</p> <p>CAN-LIFT CL08-200 / LIFTINSTITUUT - 0400 / NL17-400-1002-034-12 nominal speed range <math>\leq</math> 1,6m/s</p> <p>CAN-LIFT CL08-250 / LIFTINSTITUUT - 0400 / NL16-400-1002-034-10 nominal speed range <math>\leq</math> 1,6m/s</p> <p>REGERLIFT RGR/ SZUTEST- 2195/ 2195-LD-2123702 nominal speed range <math>\leq</math>1,6m/s</p> <p>ÖNERSAN ONRG / D Kare- 2528/ LDsq08-0705-0077-21 nominal speed range <math>\leq</math>2,50m/s</p>
Safety gears	<p>ASPAR ALY02 / SZUTEST – 2195 / <b>2195-LD-2310905</b> total mass max. 2800kg-3145kg, min-max nom. Speed 0.5-2.0m/s</p> <p>ASPAR ALY05 / LIFT CERTIFICATE TU-SOFIA – 2201 / <b>1957/TE/12.08.2024</b> total mass max. 13658kg-15539kg, min-max nom. Speed 0.2-0.63m/s</p> <p>ASPAR ALY06 / LIFT CERTIFICATE TU-SOFIA – 2201 / <b>1958/TE/19.02.2024</b> total mass max. 3450kg-4441kg, min-max nom. Speed 0.2-0.63m/s</p> <p>ELKO EFR 01, EFR 02, EFR01T, EFR02T/ D Kare– 2528 / <b>LDsq08-0526-0201-23</b> total mass max. 2700, max nom. Speed 1.5m/s</p> <p>ELKO EFR 5, EFR 6, EFR7/ D Kare– 2528 / <b>LDsq08-0117-0191-23</b> total mass max. 2700, max nom. Speed 1.5m/s</p> <p>ERKANLIFT EL-5/ D Kare – 2528 / <b>LDsq08-0228-0112-22</b> total mass max. 2400kg, max trip. Speed 1.5m/s</p> <p>ERKANLIFT EL-6/ D Kare – 2528 / <b>LDsq08-0228-0111-22</b> total mass max. 2400kg, max trip. Speed 1.5m/s</p> <p>ERKANLIFT EL-7, EL-8 / D Kare– 2528 / <b>LDsq08-0228-0113-22</b> total mass max. 2400kg, max trip. Speed 1.5m/s</p> <p>METROPLAST PRO 2000 / D Kare – 2528 / <b>LDsq08-0608-0135-22</b> total mass max.-kg, max nom. Speed - m/s</p> <p>METROPLAST PRO 2000S / D Kare – 2528 / <b>LDsq08-0608-0136-22</b> total mass max.-kg, max nom. Speed - m/s</p> <p>ZORLU ZA&amp;ET F01 / GCNTR – 2729 / <b>LS-B-0136/21</b> total mass max. 3000kg, max nom. Speed 1.50m/s</p> <p>ZORLU Z-03Y-2,5 / MIRTEC – 0437 / <b>LF/KSA/A-C-0038/17</b> total mass max. 3200kg, max nom. Speed 2.50m/s</p> <p>ZORLU Z-07-1100, Z-07-1500-9, Z-07-1500-16, Z-07-2000-9, Z-07-2000-16 / MIRTEC – 0437 / <b>LF/KSA/A-C-0118/17</b> total mass max. 1100-2000kg, max nom. Speed 1.60m/s</p> <p>ZORLU Z08 / GCNTR – 2729 / <b>LS-B-0141/22</b> total mass max. -kg, max nom. Speed -m/s</p> <p>ZORLU Z-09 / MIRTEC – 0437 / <b>LF/KSA/A-C-0118/17</b> total mass max. 4767KG, max nom. Speed 0.63m/s</p>
Car & CW Buffers (hydraulic)	<p>LASTEK LAS&amp;KA LK-01 / SZUTEST– 2195 / <b>2195-LD-2218101</b> max mass 1750kg – , max nom. Speed 1.0m/s,Stroke 98mm</p> <p>ELİTPRO ELİTPROHT / D Kare– 2528 / <b>LDsq08-0308-0061-21</b> max mass 2500kg,3750kg – , max nom. Speed 1.0m/s,Stroke 80mm-425mm</p> <p>ELİTPRO CORTREXHT / D Kare – 2528 / <b>LDsq08-0906-0162-22</b> max mass -kg 2500kg,3750kg– , max nom. Speed 1.0m/s, Stroke 80mm-425mm</p>

	<p>BOZKA KAUÇUK BZ / D Kare – 2528 / <b>LDsq08-0305-0007-20</b> max mass 1750kg , max nom. Speed 1.0m/s, Stroke 98mm</p> <p>MENEVİŞLER MP 3/4 / MIRTEC – 0437 / <b>LF/KSA/A-C-0017/17</b> total mass max. 2500kg-3500kg, max nom. Speed 1,0m/s,Stroke 280mm</p> <p>MENEVİŞLER MP 5/6 / MIRTEC – 0437 / <b>LF/KSA/A-C-00170/17</b> total mass max.1700kg-2000kg, max nom. Speed 1,0m/s,Stroke 935mm</p> <p>ÖNERSAN ONPT-01 / MIRTEC – 0437 / <b>LF/KSA/A-C-00115/17</b> total mass max.1700kg-2000kg, max nom. Speed 1,0m/s,Stroke 935mm</p> <p>ÖNERSAN ONPT-02 / MIRTEC – 0437 / <b>LF/KSA/A-C-00116/17</b> total mass max.1700kg-2000kg, max nom. Speed 1,0m/s,Stroke 935mm</p> <p>SELKAS SLK-B-1 / GCNTR – 2729 / <b>LS-B-1-108/19Rev.01</b> total mass max. 2500kg, max nom. Speed 1,0m/s,Stroke -mm</p> <p>SELKAS SLK-B-2 / GCNTR – 2729 / <b>LS-B-1-109/19</b> total mass max. 2500kg, max nom. Speed 1,0m/s,Stroke -mm</p>
*Ascending car overspeed protection & Unintended car movement protection	<p>SELKAS SLK,SLK,SLKA,SLKM / MIRTEC - 0437 / <b>LF/KSA/A-C-0025/17</b> nominal speed range <math>\leq</math> 1.0m/</p> <p>PUKKALIFT PUK/ SZUTEST - 2195 / 2195-LD-2210801 nominal speed range <math>\leq</math>1.0m/s</p> <p>KALKAN MKL-CH, MKL-A3,MKL-MD / D Kare - 2528 / <b>LDsq08-0724-0035-20</b> nominal speed range <math>\leq</math>2.50m/s</p> <p>ERKANLIFT EL-R/RA3/R2K / D Kare - 2528 / <b>LDsq08-0127-0002-20</b> nominal speed range <math>\leq</math> 2.50m/s</p> <p>CAN-LIFT CL08-200 / LIFTINSTITUUT - 0400 / <b>NL17-400-1002-034-12</b> nominal speed range <math>\leq</math> 1,6m/s</p> <p>CAN-LIFT CL08-250 / LIFTINSTITUUT - 0400 / <b>NL16-400-1002-034-10</b> nominal speed range <math>\leq</math> 1,6m/s</p> <p>REGERLIFT RGR/ SZUTEST- 2195/ 2195-LD-2123702 nominal speed range <math>\leq</math>1,6m/s</p> <p>ÖNERSAN ONRG / D Kare- 2528/ <b>LDsq08-0705-0077-21</b> nominal speed range <math>\leq</math>2,50m/s</p> <p>ARKEK ARCODE / LIFTINSTITUUT - 0400 / <b>NL 13-400-1002-048-11</b></p> <p>ARKEK ARCUBE / LIFTINSTITUUT - 0400 / <b>NL 19-400-1002-048-19</b></p> <p>KONEL REVO-LC / D Kare– 2528 / <b>LDsq08-0305-0006-20</b></p> <p>HEDEFSAN HD-BE / LIFTINSTITUUT - 0400 / <b>NL 18-400-1002-244-01</b></p> <p>HEDEFSAN HDONXS/ LIFTINSTITUUT - 0400 / <b>LF/KSA/A-C-0136-/17</b></p> <p>MİKROLIFT ML40P / LIFTINSTITUUT - 0400 / <b>NL 16-400-1002-064-09</b></p> <p>HIZTEC HIZTEC EAGLE/ GCNTR - 2729 / <b>LDsq08-0909-0163-22</b></p> <p>EMS HIZTEC / STROJIRENSKY - 1015/ <b>I-61-22890/117/ZZ</b></p> <p>MİK-EL CP U-STO,CP SX ULTRA/LIFTINSTITUUT- 0400/ <b>NL17-400-1002-039-16</b></p> <p>MİK-EL MD-STO/LIFTINSTITUUT- 0400/ <b>NL15-400-1002-039-15</b></p> <p>MİK-EL U-STO/LIFTINSTITUUT- 0400/ <b>NL19-400-1002-039-18</b></p> <p>HEAVER HEAVER/D Kare-2528/ <b>LDsq09-0915-0325-23</b></p>
<b>*for more information and applicable range refer to the EU-Type Examination Certificate and see Annex B of this report</b>	
**Landing door locking devices	<p>ASPDOOR PSA LCK 38 /D Kare -2528 / <b>LDsq08-1217-0100-21</b></p> <p>ONAYLIFT ONY /D Kare -2528 / <b>LDsq08-0415-0126-22</b></p> <p>ATERYA KT/ D Kare– 2528 / <b>LDsq08-0605-0028-20</b></p>

	MAM Asansör KT.TM.MAM.234.KLT.2/3 / D Kare– 2528 / <b>LDsq08-0208-0055-21</b> ALYANS ALYO / D Kare– 2528 / <b>LDsq08-0910-0037-20</b> DEMAs OKKK-02/ D Kare– 2528 / <b>LDsq08-0601-0026-20</b> MERİH KLT 003/LIFTINSTITUUT- 400 / <b>NL09-400-1002-061-04</b> MERİH KLT 004/LIFTINSTITUUT- 400 / <b>NL12-400-1002-061-10</b>
<b>**for more information and applicable range refer to the Certificate</b>	
***Car door locking device	PSA ASANSÖR PSA KB 38 /D Kare -2528 / <b>LDsqV02-0730-0017-21</b> ONAY ASANSÖR ONY-KD /D Kare -2528 / <b>LDsq01-0103-0078-23</b> KMT ASANSÖR ATERYA/ SZUTEST– 2195 / <b>AS-2444501</b> MAM Asansör KN.TM.MAM.234.KSK.2 / D Kare– 2528 / <b>LDsqV02-0110-0071-25</b> DEMAs OKKK-02/ D Kare– 2528 / <b>LDsq08-0601-0026-20</b>
<b>***Car door locking device are not classified as safety components according to the directive 2014/33/EU</b>	
Printed Circuit boards	ARKEl ARCODE / LIFTINSTITUUT - 0400 / <b>NL 13-400-1002-048-11</b> ARKEl ARCUBE / LIFTINSTITUUT - 0400 / <b>NL 19-400-1002-048-19</b> KONEL REVO-LC / D Kare– 2528 / <b>LDsq08-0305-0006-20</b> HEDEFSAN HD-BE / LIFTINSTITUUT - 0400 / <b>NL 18-400-1002-244-01</b> HEDEFSAN HDONEXS/ LIFTINSTITUUT - 0400 / <b>LF/KSA/A-C-0136-/17</b> MİKROLIFT ML40P / LIFTINSTITUUT - 0400 / <b>NL 16-400-1002-064-09</b> HIZTEC HIZTEC EAGLE/ GCNTR - 2729 / <b>LDsq08-0909-0163-22</b> EMS HIZTEC / STROJIRENSKY - 1015/ <b>I-61-22890/117/ZZ</b> MİK-EL CP U-STO,CP SX ULTRA/LIFTINSTITUUT- 0400/ <b>NL17-400-1002-039-16</b> MİK-EL MD-STO/LIFTINSTITUUT- 0400/ <b>NL15-400-1002-039-15</b> MİK-EL U-STO/LIFTINSTITUUT- 0400/ <b>NL19-400-1002-039-18</b> HEAVER HEAVER/D Kare-2528/ <b>LDsq09-0915-0325-23</b>

## 4. Calculations, measurements and risk assessment

### Calculations

Calculations are made according to EN81-50:2020. Additional car strength calculations, machine fixing points calculations, guide rail calculations, guide rail bracket calculations and rope fixing points calculations were made. Also, calculations for the car slings and counterweight slings are performed.

The calculations were checked and found in order. There has been given special attention to the fact that it should be possible to conduct final inspections without the need of calculations. This means that, were possible, system limits are given.

The guide rail calculations are made according to EN81-50:2020. The maximum allowable bracketing distance is laid out in the model description. This enables final inspections without the need of a calculation check.

Calculations of the supports for the fixing of the terminals of the suspension ropes (on both car and counterweight sides) are made.

Also, calculations for the machinery bed plate were made.

Calculations were checked and found in order.

## **Measurements**

Current measurements were made to check the machine and balancing factor. According to the measurements the balancing factor seemed to be 48 – 50%

Current meter used: AMPROBE (s/n: 09120568)

Nominal speed measurement was also performed.

Tests of the isolation resistance of the wiring were performed for the supply of the machine, for the supply of the lighting and for the safety circuit. All values were higher than the values required in paragraph 5.10.1.3 of EN81-20:2020.

Isolation resistance meter used: EXTECH Digital Megohmmeter 380260 (s/n: 08095714)

Lighting intensity in the car was measured. The lighting value was sufficient compared to the values required by the standard.

The alarm devices in the car, in the pit and on car roof top were checked and found in order. No outgoing telephone line was installed in the test lift. The two-way voice communication was checked between these 3 points of alarm devices and found operating normally.

Because the EN81-28:2022 is fully harmonized, the entire alarm system in lifts must fulfill the requirements of that standard.

Other measurements and checks required by the standard EN81-20:2020 -paragraph 6- were executed at the examination for the certification, like tests of the overspeed governor, of the safety gear, of the brake of the machine, the traction test (with measurements of the rope slipping), slipping of the traction sheave (or not raising the car) when the counterweight rests on its fully compressed buffer, activation of the limit switches, check on balance of the car and counterweight, check of the load weight device etc. All checks resulted in satisfying the requirements of the standard.

## **5. Examinations and tests**

The examinations are meant to check whether compliance with the Lifts Directive is met. The models are examined based on the Standards EN81-20:2020 & EN81-50:2020.

The examinations include:

- Examination of the technical file consisting of (i) All relevant information on the models

(ii) Calculations

(iii) Installation and maintenance manuals

- Examination of the representative model in order to establish conformity with the technical file
- Tests and inspections to check compliance with the essential demands of the Lifts Directive

Compliance with the Directive EMC is not examined by TUV CYPRUS (TUV NORD) LTD and therefore is excluded from this EC type examination.

### **Control Panel**

The control panel is located inside the machine room above the well. The control panel can be used to move the car for maintenance conditions or at emergency situations.

### **Accessibility to the machinery**

Mostly only inspection activities have to be carried out. Replacement of the machinery and/or the ropes can only be performed in a safe way with the use of proper hoisting equipment.

### **Control**

Short-circuiting of the safety circuit during a travel at rated speed was performed. The glass fuse F1 of the control melted and the car executed an emergency stop.

### **Motor run time limiter**

The run time is monitored by the drive.

### **Minimum height of the headroom**

The minimum free vertical space in the headroom is in accordance with the requirements of the standard EN 81-20:2020.

It has to be taken in account that the presence of permanently installed hoisting equipment in the headroom is allowed only outside the free vertical dimensions above the car roof and above the balustrade on the car roof, as well as outside the dimensions of the block for salvage.

### **Minimum pit depth**

The minimum free vertical space underneath the travel of the car is according to the requirements of the standard EN 81-20:2020.

## **6. Conditions**



In this section the required conditions are stated. The required conditions shall be checked at final inspections on installed lifts of the type **MERT ASANSÖR.**

## **Control panel**

- The control panel is located inside the machine room.
- The control panel shall be located in an area which is suitably protected against the weather conditions such as rain and temperatures below +5°C including the working area (min. 2100(h)x700(d)x700(w)mm) in front of control panel

## **Machine room**

- Machine room lighting intensity shall be at least 200Lux at floor level
- Dimensions of the machine room must fulfill the requirements of EN81-20:2014.
- Access door shall have a minimum width of 0,60 m and a minimum height of 2,0 m
- The access door shall not open towards the inside of the machine room
- At least one socket outlet must be provided
- The brake adjusting procedure shall be clearly stated in the instruction manual
- It shall be clearly stated in the instruction manual how to act in case of machinery and / or rope replacement and of checking the traction

## **Torque**

- The traction sheave will slip in respect of the stationary suspension ropes in case the counterweight is resting on its buffers and the machine is rotating in the “up” direction
- The traction sheave will slip in respect of the stationary suspension ropes in case the overloaded car (125%) is engaged by the safety gear and the machine is rotating in the “down” direction
- Engagement of the safety gear during the load test (125%) shall take place with the car roof at landing door level; if the torque is insufficient to disengage the safety gear, the car can be unloaded partially and a special lifting tool can be used

## **Motor run time limiter**

- In order to verify compliance with EN81-20:2014 the motor run time limiter shall have to be checked either:
  1. By verification; the manufacturer shall be able to show that the device is present and be able to show at which value the run time limiter is set, or
  2. By testing

## Well

- In the top of the well one lifting hooks shall be permanently available above the car. On the construction drawings the position of the hook and load capacity shall be clearly stated

## Lighting of the well

- The well shall be provided with permanently installed electric lighting, giving the intensity of illumination as required 5.2.1.4.1 from the paragraph of EN81-20:2014. The lighting elements shall be protected against mechanical damage.

## Headroom of the well

- For the minimum required heights of the headroom (clearances and free vertical distances according the requirements of the standard EN81-20:2014) at the different speeds and at minimum conditions for the dimensions of the car, the buffers, the balustrade and the over-travel, see the description of the model above.
- A relevant pictogram for the type of the refuge space shall be provided according to EN81-20:2020 paragraph 5.2.5.7.1

## Overspeed Governor

- One of the following measures has to be taken, being able to reset the safety contact of the overspeed governor after over speed of the car did appear or after restoring of the safety gear activated:
  - \* Reset of the contact must be executed from the topmost landing floor (maintenance access panel or control panel) by remote control or
  - \* Two maintenance persons need to be available at the site to execute the reset action by emergency operation

## Car

- If applied, an emergency trap door shall have dimensions (free passage) of at least 0.40mx0.50m
- In case the inspection station is installed on the back side of the car roof out of the reach of 1.0m from the landing, a second stopping device is required on the front side of the car
- Balustrade with height of 1,1m and toe board with height of 0,10m shall be provided on the car roof

## Balance

- The balancing factor is important in relation to the applicable torque and the correct functioning of the dynamic brake: the balancing factor shall be 50% for rated loads 400Kg and 450Kg and 48% for all other models with a tolerance of -0% + 2%

## **Limit Switches**

- The devices (bars) for positive activation of the limit switches must have sufficient length to hold the switches activated in case the car is put to its ultimate positions in the well

## **Pit**

- The clearances and free vertical distances in the pit must be in accordance with the requirements of the standard EN81-20:2020. A relevant pictogram for the type of the refuge space shall be provided according to EN81-20:2020 paragraph 5.2.5.8.1.
- For the minimum required depth of the pit at different speeds at minimum conditions for car flooring, floor construction and the over-travel see the description of the model above.
- The buffers for the counterweight will be installed directly on the floor of the pit mostly. The buffers of the car will be installed on the floor by intermediate support that will be provided by the installer according to the loads.
- If the horizontal distance between the apron of the car and the front wall of the pit is smaller than 0.15m, the free vertical distance between the floor of the pit and the apron of the car must be 0.10m at least
- If the horizontal distance between the apron of the car and the front wall of the pit exceeds 0.15m, the free vertical distance between the floor of the pit and the apron of the car must be 0.50m at least or the vertical surface below the sill of the bottom landing floor must be continuous closed down to at least 0.10m above the floor of the pit or the horizontal distance between the apron of the car and the front wall of the well must be decreased until a dimension smaller than or equal to 0.15m by a continuous closed vertical surface down to the floor of the pit, starting at the bottom of the apron of the bottom landing door. The continuous closed vertical surfaces must be composed of smooth and solid material and match the same requirements as the aprons of other landing doors.
- Return to normal operation of the lift from pit inspection station shall only be made after the electrical reset device (in conjunction with the emergency unlocking means) is operated. Additionally the others requirements of the standards shall fulfill.

## **Rescue Operations**

- A document with rescue instruction must be permanently provided inside the machine room. The tools shall be available to persons performing special rescue operations without undue delay
- It shall be clearly stated in the instruction manual how to act in case special rescue operations are necessary

## Fire Protection

- Compliance with the essential requirements of the Lifts Directive, Annex I, chapters 4.2, 4.4 and 4.10 shall have to be checked at final inspection. These demands can be fulfilled by matching with the requirements of the standards EN81-58, EN81-72 and EN81-73.

TUV Cyprus LTD has not checked compliance of the model lift with these standards and no fire rating certificates for the landing doors have been provided.

## Common

- The unlocking key for the landing doors will be equipped with a warning pasted on the outside. To avoid damaging of this notice, it must be protected with a thin transparent coating or be engraved.
- Procedures to perform tests and checks must be available in the register to keep at the lift.

## **7. Conclusions**

Based upon the results of the EU-type examination TUV Cyprus LTD issues an EU-Type Examination Certificate.

The EU-Type-Examination Certificate is only valid for products which are in conformity with the same specifications as the type certified product. Products deviating of these specifications need additional examination by TUV Cyprus LTD in order to determine whether a new EU-Type Examination Certificate is necessary.

Additional examination shall be requested by the Certificate holder.

## **8. CE Marking and EU Declaration of Conformity**

To placing the product on the EU market the installer shall ensure the conformity to type designation MERT ASANSÖR following one of the assessment procedures stated in Annex V, Annex X and Annex XII - according to Article 16-1(a)(i), 16-1(a)(ii), 16-1(a)(iii)- of the European Directive 2014/33/EU.

Every installation that is in complete conformity with the examined type must be provided with a CE marking according to article 18 of the Lifts Directive under consideration if conformity with the EMC Directive and eventually other applicable directives is proven.

Furthermore, every installation must be accompanied by an EU Declaration of Conformity according to Annex II part B of the Lifts Directive in which the name, address and identification number of the Notified Body that carried out the EU Type Examination Certificate (TUV Cyprus LTD) must be included as well as the number of the Certificate.

The manufacturer shall inform the notified body of any modification to the approved type which may affect the conformity of the lift with the conditions of validity of the EU-Type Examination Certificate

## **9. Conditions for the Certificate**

This certificate is issued under the following conditions:

1. It applies only to the tested model submitted to the tests specified in the report.
2. It does not imply that the notified body has performed any surveillance or control of its manufacture.
3. The manufacturer shall ensure that the manufacturing process assures compliance of the elevators produced with the approved model subject to this certificate.
4. The applicant shall inform the notified body of all modifications made to the approved model which must receive, when necessary, additional approval leading to an addition to the original EU-Type Examination Certificate
5. As technical progress or new work could affect the conclusion of this EU-Type Examination, the applicant shall regularly keep himself informed of any modification made to tests carried out on the approved model by the notified body.
6. Copies are available upon request by the applicant.