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EU-TYPE EXAMINATION CERTIFICATE

Issued by Liftinstituut B.V.
identification number Notified Body 0400,
commissioned by Decision no. 2023-0000172941

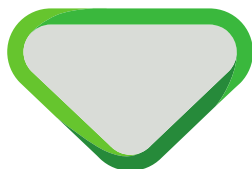
Certificate no. : NL25-400-1002-074-28 Revision no.: -
Description of the product : Gearless Traction Lift
Trademark : KLEEMANN
Type no. : CITY
Name and address of the installer : Kleemann Group Kleemann China
Kilkis Industrial Area Kunshan City, Jiangsu Province
P.O Box 25 No.100 Dengta Road, Yushan Town
P.C. 61 100 Kilkis, Greece 215316,
P.R. China
Name and address of the certificate holder : Kleemann Group
Kilkis Industrial Area
P.O Box 25
P.C. 61 100 Kilkis, Greece
Certificate issued on the following requirements : Lifts Directive 2014/33/EU
Certificate based on the following standard : EN 81-20:2020, EN 81-50:2020
Test laboratory : None
Date of EU-type examination : February 2024 – January 2025
Additional document with this certificate : Report belonging to the EU-type examination certificate
no.: NL25-0400-1002-074-28
Additional remarks : Rated load 225 – 1050 kg
Maximum speed 1.75 m/s
Maximum Capacity 14 passengers
Maximum travel 80.0 m / 52 stops
See chapters 2 & 5 of the report belonging to this EU-type
examination certificate for more technical details.
Conclusion : The model lift meets the requirements of the Lifts Directive
2014/33/EU considering any additional remarks mentioned above

Amsterdam

Date : 24-01-2025
Valid until : 24-01-2030

Certification decision by

W.G. Kasteleijn
Product Manager Certification



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Report EU-type examination

Report belonging to EC type-examination / EU-type examination certificate number : NL25-400-1002-074-28

Date of issue of original certificate : 24-01-2025

Certificate applies to : Lift

Revision number / date : Original

Assessment basis : Lifts Directive 2014/33/EU
Standards: EN 81-20:2020, EN 81-50:2020

Project number : P230463

1. General specifications

Description of the product : Gearless traction lift

Trademark : Kleemann

Type no. : CITY

Name and address of the manufacturers : Kleemann Group
Kilkis Industrial Area
P.O Box 25
P.C. 61 100 Kilkis, Greece

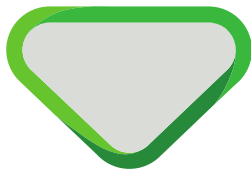
Kleemann China
Kunshan City, Jiangsu Province
No.100 Dengta Road, Yushan Town 215316,
P.R. China

Laboratory : None

Address of examined lift / machine*) : Kleemann
Kilkis Industrial Area, Kilkis, Greece

Date of examination : February 2024 – January 2025

Examination performed by : M.Issa



2. Description lift

The Kleemann CITY is a traction lift built with a machine room (MR) or a machine-room-less (MRL) with a 2:1 suspension system featuring a centrally suspended and guided car. Its gearless traction machine is selected based on the load requirements and is mounted on a frame at the top of the well. The frame rests on three guide rails and is secured with specially designed wall plates. An overspeed governor is installed on a side wall at the top of the well.

Control and safety components, including power switches, fuses, and a controller with inspection and rescue operation functions, are housed in the control cabinet. This cabinet is typically located near one of the landing door frames at an upper floor, although it may occasionally be installed on other floors. For MR, this cabinet is mounted in a machine room.

For lifts with travel heights exceeding 30 meters, an intercom system ensures two-way communication between the car and the control panel.

The car can be configured with either a single entrance or a double entrance in a through-type arrangement (180° apart).

Door options include telescopic doors with two or three panels, central opening doors with two, four panels, or semi-automatic hinged landing doors with foldable car doors.

The lift achieves a maximum nominal speed of 1.75 m/s, with lower speeds available down to 1.0 m/s. Each combination of speed and load is paired with a specifically designed traction machine to meet application requirements, see table 3.

The motor and electromechanical brake are activated using at least two independent contractors, with power supplied only when the safety chain is closed. The main contactors meet the AC-3 category requirements of EN 60947-4-1, and their ratings are dimensioned according to their function.

The STEP/KLEEMANN AS320 frequency converter also acts as one of the main contactors, controlling the motor circuit in compliance with EN 81-20:2020. Relay Output 1 is checked by the lift controller at the contactor check input before each run, ensuring reliable operation.

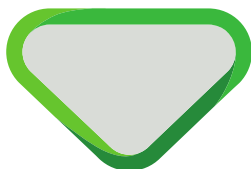
Unintended Car Movement Protection (UCMP):

The controller monitors the safety circuit both before the lift starts and during operation, particularly when the door bypass device, if present, is active.

If the car moves out of the landing zone with the doors open, the safety circuit opens as the door-bridging circuit deactivates. Following this detection of unintended car movement (UCM), the machine brake is de-energized and engages due to spring force. The lift then enters a status requiring technician intervention for recovery. Restarting the lift by switching the main power off and on will not resolve the error. The UCM detection status is stored in non-volatile memory and can only be cleared through a dedicated unblocking action.

To reset the lift, the maintenance technician must access the appropriate menu on the lift controller. In systems without a door safety bypass device or a re-leveling function with open doors, UCMP (Unintended Car Movement Protection) depends on preventing unintended car movement through the measures described. The braking force must be assured, with a relevant risk analysis provided and deemed acceptable.

In such cases, both brake elements must be monitored using switches. These switches are checked by the inverter or controller before the lift starts. They are pre-set to detect excessive brake wear, ensuring continued reliability.



Ascending Car Overspeed Protection (ACOP):

Ascending overspeed protection can be achieved through either the bi-directional safety gear on the car, activated by the overspeed governor, or the machine brake, engaged by the overspeed contact on the governor.

Tabel 1: Model Lift Specification

Rated load	kg	<225 ~ 450	≤675	≤825	≤1000	≤1050
Min/max car weight	kg	400-950	500-950	530-1150	590-1200	630-1200
Rated speed	m/s	1.00 m/s , 1.60 m/s , 1.75 m/s				
Door type	-	Telescopic single side or central opening doors, hinged semi-automatic doors				
Number of car entrances	-	1 entrance or 2 entrances at 180°				
Maximum stops	-	52				
Maximum of accesses	-	104				
Maximum travel	m	80				
Controller type	-	Kleeman Genuis20				
Invertor/drive	-	STEP AS320				
Governor rope/ nominal breaking load	-	6.5 mm / 31.5 kN				
Suspension Rope type 1 manufacturer, diameter minimum breaking force	- - mm kN	(8x19W-IWRC 1770) 250T Pfeifer Drako Ø6.5 31.5				
Suspension Rope type 2 manufacturer, diameter minimum breaking force	- - mm kN	8X19W-IWRC 1770 PAWO 819W GUSTAV WOLF Ø6.5 31.5				
Suspension Rope type 3 manufacturer, diameter minimum breaking force	- - mm kN	ELSTAR 8WS Usha Martin Ø6.5 31,5				
Number of ropes	-	5-6	6-7	7-8-9	8-9	
Traction sheave diameter - A , groove, Y	mm -	Ø200 180, V-groove, 40/45/50/55				
Diverting pulleys' diameter	mm	Ø240 mm, Ø160mm				
Car guiderails	-	T75x62x10 / T89x62x16				
Maximum bracket distance	mm	2250		1750		
Counterweight guide rails	-	SW59 / T75x62x10*				
Max bracket distance	mm	2250		1750		

Note 1: *For travels over 40m

Note 2: Higher bracket distances are possible, provided that the necessary calculations are delivered by KLEEMANN.

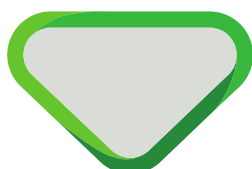


Table 2: Allowed Car Dimensions

Single entrance car									
Rated load	Internal car height	Floor height	Ceiling height	$V \leq 1.00$ m/s		$1.0 < V \leq 1.60$ m/s		$1.6 < V \leq 1.75$ m/s	
				Min Pit	Min HR	Min Pit	Min HR	Min Pit	Min HR
				Mm	mm	mm	mm	mm	Mm
$Q \leq 675$	2100 mm	50	70	900	3300	1030	3485	1100	3550
$Q > 675$	2100 mm	75	70	925	3300	1055	3485	1125	3550

Note 3: For larger/smaller car heights the minimum headroom is evenly increased/decreased

Note 4: We assume overtravel 30 mm for $v=1$ m/s and 50 mm for $v>1.00$ m/s

Note 5: The buffer compression is 65mm.

Table 3: Applicable Traction Machines And Brakes:

Speed m/s	Rated load				
	$<225 \sim 450$ kg	≤ 675 kg	≤ 825 kg	≤ 1000 kg	≤ 1050 kg
$V \leq 1.00$	ERSCK-61P0 PZ300C	ERSCK-61P0 PZ300C	ERSLK-101P0 PZ1000B	ERSLK-101P0 PZ1000B ERSPK-121P0 PZ1000B	ERSLK-101P0 PZ1000B ERSPK-121P0 PZ1000B
$V \leq 1.60$	ERSCK - 61P6 PZ300C	ERSCK - 61P6 PZ300C	ERSLK - 101P6 PZ1000B	ERSLK - 101P6 PZ1000B ERSPK - 121P6 PZ1000B	ERSLK - 101P6 PZ1000B ERSPK - 121P6 PZ1000B
$V \leq 1.75$	ERSCK - 61P7 PZ300C	ERSCK - 61P7 PZ300C	ERSPK - 121P7 PZ1000B	ERSPK - 121P7 PZ1000B	ERSPK - 121P7 PZ1000B

*PZxxxx is the applicable electromechanical brake for each machine.

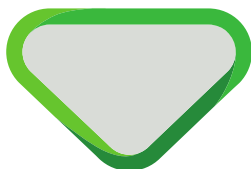
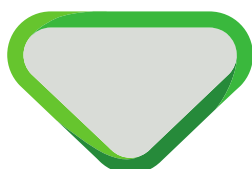


Table 4: Applicable Safety Components

The following table lists the allowed safety components with their certificate number which may be used in the CITY within their application range.

Note: If an EU-Type certificate of a component is updated, the revised version can also be used in this Model lift EU-type certification provided that the safety component remains suitable for the same conditions and application range.

Component	Manufacturer; type	Certificate no.
Landing door locking device	Electrometal I (TI)	LF/KSA/A –C-0053/16
	Tecnolama Premium	NL16-400-1002-075-07 REV.3 01/11-099/PR/R
	Tecnolama Basic +	NL16-400-1002-075-09 REV.3&4
	Tecnolama 265/11/50	NL16-400-1002-075-06 REV.3 02/09-009/PR/R
	Tecnolama 210/10/40	NL16-400-1002-075-05 REV.3 01/09-009/PR/R
	Tecnolama 160/10/40	NL16-400-1002-075-04 REV.3
Car door locking device	Tecnolama CDL	NL16-400-1002-075-02 REV.1 04/09-009/PR/
Car safety gear	Luezar SD-MAC-OILED 8MM SLC2500-S	TRI/DAS.IV-A/001322/20
	Luezar SD-MAC-OILED 8MM SLC2500-HS	
Ascending car overspeed and UCM stopping device (brakes)	Suzhou Torin Drive PZ 300 C	EU-BD 877
	Suzhou Torin Drive PZ 1000 B	SCMB.0490
PU Buffers	Acla 300400A	44 208 12019088 (-001) / EU-B 137
	Acla 300401A	44 208 12019090 (-001) / EU-B 139
	Acla 300401B	44 208 12019091 (-001) / EU-B 140
	Acla 300402A	44 208 12019093 (-001) / EU-B 142
	Acla 300403A	44 208 12019097 (-001) / EU-B 145
	Acla 300404A	44 208 12019098 (-001) / EU-B 146
	Acla 300405A	44 208 12019092 (-001) / EU-B 141
	Acla 300400L	44 208 17053401 / EU-B 147
	Acla 300401L	44 208 17053403 / EU-B 149
	Acla 300402L	44 208 17053404 / EU-B 150
	Acla 300403L	44 208 17053406 / EU-B 152
	Acla 300404L	44 208 17053407 / EU-B 153
	Acla 300400R4	F-0458/2022
	Acla 300401Q4	F-0448/2021
	Acla 300401P4	F-0446/2021
	Acla 300402L1	EU-B 150
	Acla 300403L1	EU-B 152
	Acla 300419L1	EU-B 151



Hydraulic buffers	Oleo LSB16.B	TUV-A-AT-1-19-0613-EUPU-1
	Oleo LSB18.B	
Overspeed governor	ONRG-02 - MRL	LDsq08-1001-0264-24 rev.2
UCM detector	Kleemann KMREL-V1	NL19-400-1002-074-27 rev 2
PESS	ELGO Limax 33 CP-SW	EU-ESD 030/1 -2.5

3. Examinations and tests

The examination covered a check whether compliance with the Lifts Directive 2014/33/EU is met, based on the harmonized product standards EN 81-20:2020 and EN 81-50:2020. Issues not covered by or not complying these standards are directly related to the above mentioned essential requirements based on the risk assessments.

The examination included:

- Examination of the technical file (See annex 2):
- Check of performed calculations according to EN 81-20/50.
- Examination of the representative model in order to establish conformity with the technical file.
- Inspections and tests to check compliance with the requirements.

4. Results

After the final examination the product and the technical file were found in accordance with the requirements. The functional tests passed without remarks. The load tests passed without remarks and did not lead to permanent deformations or loss of stability.

4.1 Calculations

Calculations of the car guide rails, and counterweight guide rails are made on the basis of EN 81-20/50 requirements. Additional calculations were made for the counterweight frame, machine support frame, drive shaft and the buffer support structure. 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 checking calculations.

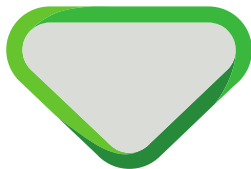
This means that, where possible, system limits are given such as maximum car mass and maximum bracketing distance for the guide rails.

4.1.1. Guide rail calculations

The calculations are made according to EN 81-50, clause 5.10.

The calculations take into account the additional loads introduced by the machine.

The information stated in the model description enables final inspections without the need of a calculation check. The maximum bracket span for each allowed type of guide rail is stated in the model description.



4.1.2. Traction

The calculations are made according to EN 81-50, clause 5.11 and found in order.

The minimum and maximum required mass of the car is indicated in the model description. The information stated in the model description enables final inspections without the need of a traction calculation check.

4.1.3. Suspension rope safety factor

All relevant factors have been considered and lead to the maximum allowed car mass and car dimensions as stated in the model description.

The information stated in the model description enables final inspections without the need of a calculation check.

4.2. Measurements

4.2.1. Current measurements

Current measurements were done to check proper balancing. The final result was ok.

4.2.2. Speed measurements

The following speed measurements, using test loads, have been performed:

- nominal speed
- inspection drive speed

All measurements were within the set values according to clause 5.9.2.4 (nominal speed), clause 5.12.1.5 (inspection drive speed) of EN 81-20.

4.2.3. Insulation resistance measurements

On the following circuits, insulation resistance measurements have been performed:

- Motor circuit
- Safety circuit
- Car lighting circuit

The measured values of the single lines, and of parts of lines, as well as their summation, were higher than the required values in the standard.

4.3. Deviations from EN 81-20 (Annex 3)

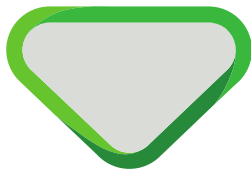
4.3.1 Roping system:

The rope system of the CITY lift incorporates deviations from certain requirements of EN 81-20. The nominal rope diameter is 6.5 mm, which is smaller than the standard minimum of 8.0 mm, and the traction sheave diameter is 200 mm. This results in a D/d ratio is lower than the value recommended by the standard. The rope terminations consist of a wedge socket with a single rope clamp, securely mounted to ensure the wedge remains in position.

Due to the potential risks associated with these deviations, including the reduced rope diameter and D/d ratio, the suspension rope system has been type-approved by a Notified Body. The drive system of the CITY lift adheres to all conditions specified in the certification reports, and compliance with all other requirements set out in the rope certifications is mandatory.

4.3.2 Apron:

For pits with a minimum depth of 900 mm, a telescopic car apron (PA1 low pit) can be used. It shall not move inwards, even when the car is on the fully compressed buffers, but it is able to telescope upwards in case something is on the pit floor and so guarantee 100 mm clearance. Based on Risk Analysis, a safety switch does not monitor this telescoping movement.



4.3.3 Energy accumulation Buffer stroke:

The deviation in the CITY lift concerns the buffer stroke, where the extreme positions of the car and counterweight are defined using a buffer compression of 65 mm, instead of the standard 72 mm (90% of buffer height as specified in EN 81-20). This adjustment was made to reduce pit and headroom dimensions, optimizing the lift design for space constraints. The 65 mm compression value was determined based on supplier test data, ensuring it's safe and functionally adequate. The deviation is accepted as it maintains safety and performance, supported by thorough testing and documentation, while meeting the lift's design requirements.

4.3.4 OSG roping:

*The solution for the tensioning system deviates from the EN 81-20 clause 5.6.2.2.1.3 c; the ropes used with this overspeed governor shall have a value of $D/d \geq 18.46$, and the rope should be approved.

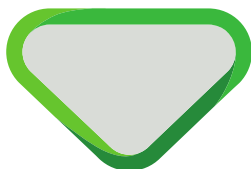
**based on type-examination certificate of the overspeed governor.*

5. Conditions

Additional to or in deviation of the applicable demands in the considered requirements / standards (see certificate and/or page 1 of this report), the following conditions shall be taken into account:

Control cabinet:

- Motor and brakes must be energized according to the requirements of EN 81-20:2014 clauses 5.9.2.2.2, 5.9.2.5.2, 5.9.2.5.4, while the used contactors must fulfill the requirements of EN 81-20:2020 clause 5.10.3.1.
- The AC control circuits shall be supplied from a transformer, which shall have separate windings.
- The controller must be located in a separate and lockable cabinet. It must be able to close and lock this door without the use of a key. Opening can only be done with the use of a key.
- For MRL, The control cabinet must be located next to one of the two upper landing doors or in the nearby vicinity. In rare cases the control cabinet can be located at intermediate floors, always in the nearby vicinity of the landing door. In that case the following conditions must be met:
 - A label shall indicate the location of the control cabinet located at the bottom and top landing.
 - The control cabinet must be accessible at all times.
 - a label inside the control cabinet door shall indicate the following: "Do Not Leave Unattended, Close Door When Leaving".
 - an additional 3-phase main switch near the motor shall be installed.
- For MR the control cabinet must be located in a machine room which is fulfilling the requirements of EN 81-20.
- The control panel shall be protected against splashing water and shall have a protection degree IPX3, the electrical equipment inside the control panel shall have a protection degree IP2X.



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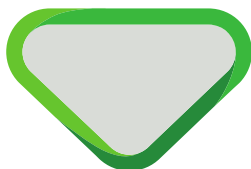
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- The cabinet shall be located in an area which is suitably protected against all weather conditions, such as rain, including the working area (min. 500 x 700 mm) in front of the cabinet.
- Unrestricted access to the controller must be ensured. Therefore, the controller cannot be located in private premises without additional measures.
- The control panel shall not be located in areas where interference with public can be expected to lead to dangerous situations.
- If the controller is installed outside, the effect of high and low temperatures and the influences on the lift system must be examined separately.
- In front of the control panel a horizontal free space of 70 cm is required. In case the space in front of the control cabinet shall allow the passing of public this minimum horizontal free space needs to be 1.20 m. In specific situations for instance if wheelchairs have to pass by, this value might need to be enlarged to 1,55 m. The essence is that in any case a free horizontal space of 70 cm is guaranteed. In addition, depending on the frequency of passing public and the nature of activities on site, the use of a fence guarding the working area might be needed.
- The light intensity in front of the opened control panel shall be 200 lux.
- A LED display must be installed in the control cabinet as a level indicator including identification of car movement and car travelling direction.
- An emergency powered rescue drive must be supplied in the cabinet.
- It shall be possible to perform all dynamic tests from this cabinet (outside the well).
- It shall be possible to remove the car from a safety gear activated situation at all times by normal means. After this a reset by a technician is required.
- In case the integrated drive/controller is located inside the well, the requirements mentioned above shall be met by the Emergency and Inspection panel, located outside the well.

Genius20 Controller:

- Incoming ground/neutral is connected on terminal NIN of the KMREL-V1 board. The ground/neutral used for the main contactors shall be supplied from terminal NOUT of the KMREL-V1 board.
- The wiring in the controller shall be dimensioned properly for the currents involved during the normal operation of the lift. To prevent mistakes no similar yellow, green, yellow/green and blue coloured wiring will be used other than for protective earth and neutral wiring.
- It shall be possible to perform all dynamic tests from this cabinet (outside the well).
- The required monitoring functions for UCM need to be programmed suitably.
- After detecting UCM, the lift is kept out of service, even when the main power is switched off and on again.
- To assure conformity Kleemann provides mounting and maintenance instructions and guide-lines. To obtain conformity to the standard EN81-20:2014, installers must install, connect and program the controller according to these documents.
- The “Genius 20 Installation Guide”, “Genius 20 Menu” and “Genius 20 Hardware” need to be available at the lift for installation, maintenance and testing purposes.
- The installer of the lift needs to define the final solution taken into account the key parameters of the KMREL-V1 and the stopping means. The maximum detection distance is variable and will standard be around 16cm (“Zone 2”). This might be too much for the



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application and needs then to be shortened to fit in into the total system and finally stop the lift within the required distances of EN81-20:2014 clause 5.6.7.5.

- Where the main contactor is cutting 2 out 3 available phases to the motor, the main contactor shall be placed between the drive/invertor and the motor, since one pole will not be sufficient to cause unwanted rotation of the motor.
- When an UPS is applied an additional contact of the power main switch (MSW) must be connected to L-out output on the UPS.

Rope system:

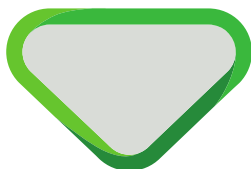
- All the conditions listed in the wire rope certificate shall be met.
- Safety factor of the rope shall be according to clause 2.12 of EN 81-50 or higher, with at least $SF=12$.
- The suspension ropes must be discarded in case of (for all lift installations)
 - 26 broken wires within a length of $30 \times d$ or
 - 13 broken wires within a length of $6 \times d$ or
 - a diameter reduction of more than 6% related to the nominal rope diameter.
- The ratio between the diameter of the diverting pulley and rope diameter must be at least $D/d \geq 18.46$
- The diverting pulleys must be designed with a semi-circular groove made of steel or cast iron (hardened or non-hardened) or made of plastics.

Machine and brake:

- The light intensity in front of the machine and inverter shall be 200 Lux.
- The machine used is equipped with a non-adjustable brake. This brake is considered by its manufacturer to be maintenance-free. The machine itself needs only visual inspections. The maintenance work foreseen to be performed from the car roof is not likely to cause any unexpected movement of the car. Changing of the machine or the brake is considered repair work and not maintenance work. For that reason, the car is not equipped with any mechanical blocking device to keep it in position to perform maintenance.
- Considering the location of the machine at the side in the top of the well, there shall be a free space of minimum 0,3 m above the moving parts, unless they are completely covered.

Pit:

- The minimum vertical distance between the cover of the tension weight and the lowest part of the car bottom shall be 100 mm when the car is at its fully compressed buffers.
- Using more than one buffer, shall be identical in design, execution, and installation position.
- After making use of the pit inspection station the installation can only get back to normal operation after a reset by means of a reset switch located at the bottom landing or by a specific sequence and time of operating the LOP at the bottom landing.
- For entrance of the pit, in case the depth is over 500 mm, a vertically fixed ladder shall be present to reach the pit floor from the landing. When this is not possible, a not permanently fixed ladder can be used under several conditions:
 - It must be possible to place the not permanently fixed ladder in an operational position angle of approximately 70° to the horizontal.
 - Additional requirements for this ladder are that it can be stored either against the wall of the well or on a support attached to the guide rail within a reach of 0.70 m or it is stored



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on the pit floor under the condition that it is connected to a chain in order to lift it from the landing position.

- The ladder shall be connected irremovable to the pit.
- The ladder shall comply with EN 81-20, annex F.

Car:

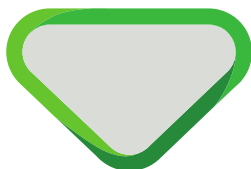
- The car roof is accessible and provided with the required handrails and an inspection station.
- The car and its interior with finishes shall be designed according to the requirements of EN 81-50. Walls, floor, roof, and balustrade shall be of sufficient strength.
- Car doors shall be accompanied by a pendulum test report according to clause 5.14.5 of EN 81-50.
- The car door shall be locked between floors or be equipped with a door restrictor, In case of power failure opening of the car door from inside the car, when in door zone, is possible after 5 minutes delay due to battery back- up.
- The connection box on the car roof shall be non-accessible due to dimensions.
- The deflection pulley's and the overspeed governor on the car shall be protected according to the requirements of EN81-20, clause 5.5.7.

Re-levelling with open doors or pre-opening of doors:

- Incoming ground is connected to terminal "NIN", the ground used for the main contactors and shall be supplied from terminal "NOUT".
- When the door-bridging option is required to be used; the lift control shall stop and maintain the lift stationary when a fault in the A, B, C circuit or door-zone information occurs.
- In the case of application for UCMP, the installer of the lift needs to define the final solution taking into account the key parameters of the control, KMREL-V1, and the stopping means.
- Door-zone sensors Z1,Z2 shall be suitable to clause 5.11.2.5 of EN 81-20 and the door zone magnets should be properly fixed (e.g. screwed, glued).
- The maximum length of the zones is 100 mm. It must fulfil the requirements of EN 81-20 clause 5.6.7. Door zone Z1 shall be always smaller than door zone Z2.
- If the length of the Z1/2 is found to be excessive for the application, it should be shortened to fit into the overall system and ensure that the lift stops within the required distances specified in EN 81-20, clause 5.6.7.5.
- The board shall be labelled with the EU-type certificate number.

Well:

- Local requirements may demand an emergency light on the car roof or top of the well.
- Landing doors shall be accompanied by a pendulum test report according to clause 5.14.5 of EN 81-50.
- Vertical and horizontal clearances in top of the well as required by clause 5.2.5.7 of EN 81-20 have to be met, considering all control cabinets located in top of the well, like the drive, controller, UPS but also the machine and OSG.
- A two-way communication device shall allow contact with the rescue service and shall be designed and constructed such, that it will function even without the normal power supply. This provision shall be there both on the car roof and on the bottom of the car so that it can be reached when trapped in the pit.
- A temperature between +5°C and + 40°C must be ensured in the lift well.



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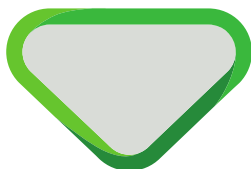
SINCE 1933



- The vertical clearance between the VVVF(drive/invertor) located in the well top (which might have some part in the car projection) and the top of the car door motor box must be sufficient. If this cannot be achieved, the VVVF must be relocated.

Documents:

- A technical file, a user manual, a maintenance manual and an electrical diagram must be present at the lift.
- When the option re-levelling with the doors open is provided, the following items will have to be present at the installation to be checked during final inspection:
- Detailed field test instructions regarding UCMP must be present. in one of the following documents “Kleemann KL-UCMP Traction-Examination and Tests before putting into service”.
- For each installation the calculations must be available in the technical file on-site for verification purposes.
- An additional calculation shall be done to check whether the deceleration and stopping distance is within the limits as required by EN 81-20:2020. The calculation method to be used is “Kleemann Calculations for UCM-A3, stopping with Machine Brake”. For each installation the calculations shall be checked and approved.
- All the safety components related documents such as installation, maintenance, and operation manuals shall be available and supplied with the lift, manufactures instructions must be observed particularly about the inspection, replacement criteria, and fixing.



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6. Conclusions

Based upon the results of the EU-type examination Liftinstituut B.V. 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. The certificate is issued based on the requirements that are valid at the date of issue. In case of changes of the product specifications, changes in the requirements or changes in the state of the art the certificate holder shall request Liftinstituut B.V. to reconsider the validity of the certificate.

7. CE marking and EU Declaration of conformity

Every product that is placed on the market in complete conformity with the examined type must be provided with a CE marking according article 18 of the Lifts Directive 2014/33/EU under consideration that conformity with eventually other applicable Directives is proven. Also, every product must be accompanied by an EU declaration of conformity according to annex II of the Directive in which the name, address, and Notified Body identification number of Liftinstituut B.V. must be included as well as the number of the EU-type examination certificate.

Prepared by:

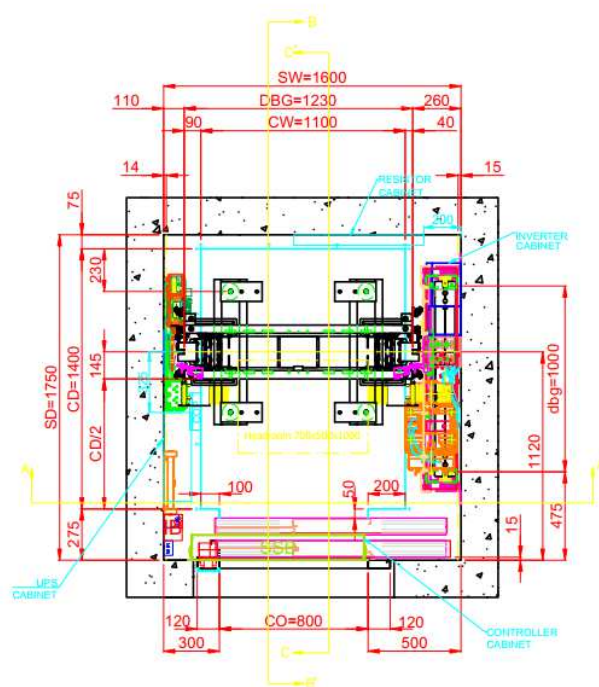
Mohamed Issa
Product Specialist Certification

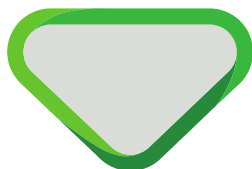
Certification decision by:

W.G. Kasteleijn
Product Manager Certification



Annex 1. CITY (dimensions are not absolute)





Annex 2. Documents of the Technical File which were subject of the examination

Title	Document number	Date
List of reviewed documents	Ver.01	22-01-2025

Annex 3. Reviewed deviations from the standards

EN 81-20 par.	Requirement	Accepted design
5.2.5.8.2 a) 1)	for any part of the apron or a minimum of 0,10 m to the adjacent wall/floor	See 4.3.2
5.6.2.2.1.3.c	Overspeed wire rope	See 4.3.4
5.5.1.2 5.5.2.1	Suspension Wire rope	See 4.3.1
5.8.2.1.2.2	fully compressed buffer means of 90 % of the installed buffer height.	See 4.3.3
5.9.2.5.4 b.1	The contactor shall interrupt the current at all poles	the main contactor is placed between the drive and the motor.

Annex 4. Revision of the certificate and its report

Rev.:	Date	Summary of revision
-	24-01-2025	Original

--- End of report ---