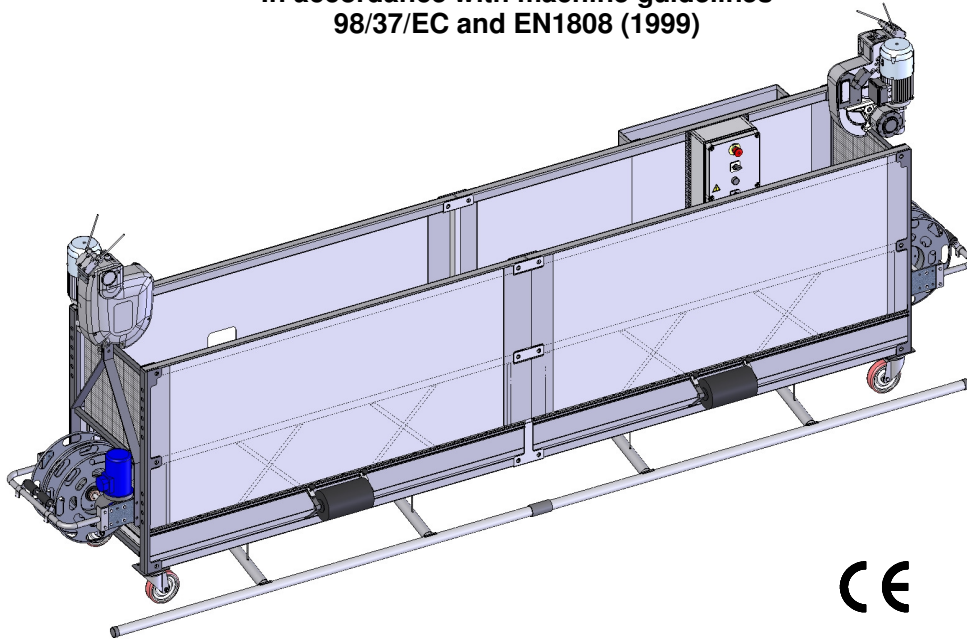


User Manual**BMU PLATFORM
TITAN**

In accordance with machine guidelines
98/37/EC and EN1808 (1999)



This manual should be thoroughly read and understood before start of operations.

Any manoeuvre in conflict with these guidelines is on one's own responsibility.

This manual should be kept close to the platform at all times.

Only use original POWER CLIMBER parts and steel wire ropes.

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BMU TITAN (CE)

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General description BMU Platform

The purpose of a BMU platform is to move people and their equipment upward or downward for maintenance and inspection of buildings or structures.

The platform can be used inside as well as on the outside wall of a building. Every BMU platform is designed for a specific building and will stay in or on this building at all times.

The BMU platform is made up of two aluminium side panels, an aluminium floor panel and two rails. These are mounted onto two steel stirrups. The TITAN hoists are attached to these stirrups.

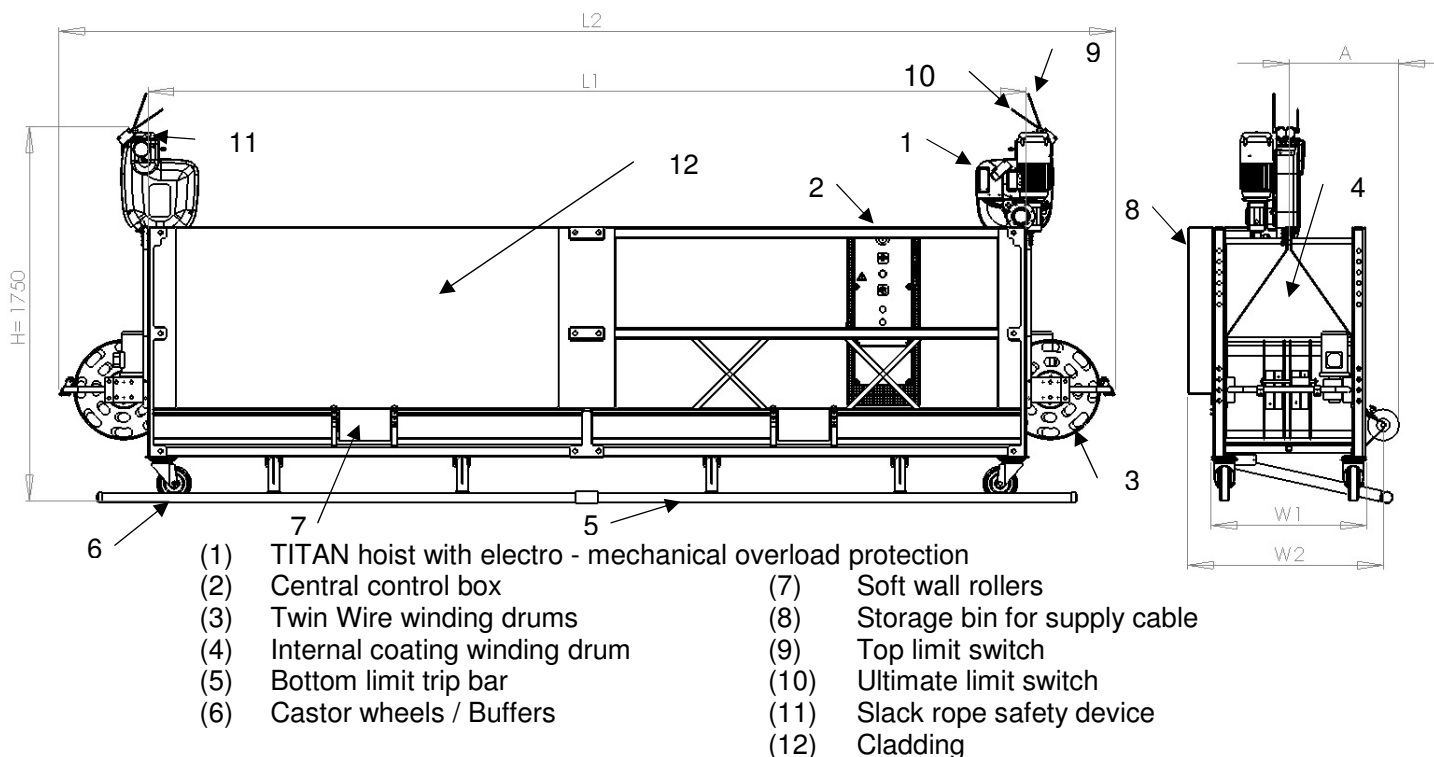
The hoist and safety cables are wound up using the cable winding drums.

The TITAN hoist is operated by a central control panel, in the platform.

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General view BMU Platform



Nominal Length	2 m	3 m
L1 = Distance between hoist cables	2057 mm	2974 mm
L2 = Full Length	2900 mm	3820 mm
Width across rails	700 mm	700 mm
A = Distance hoist cable - wall	510 mm	510 mm
W1 = Nominal width	765 mm	765 mm
W2 = Full width	990 mm	990 mm
Self weight (see note 1)	265 kg	290 kg
Max. useful load	2500 N	2500 N
Number of persons	2	2

For special orders: See design in Appendix 0

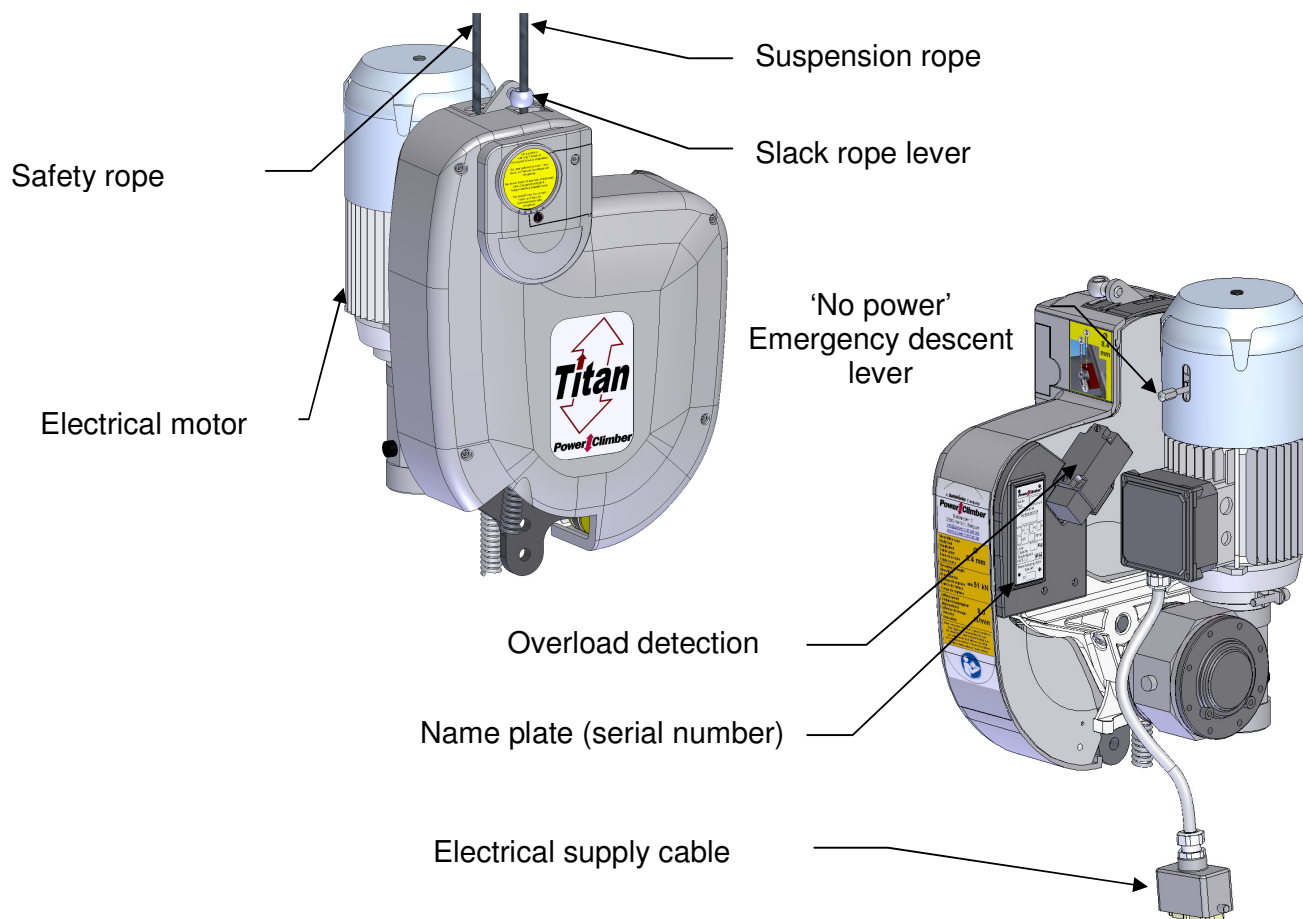
- (1) Selfweight i.e. without steel cables nor supply cables.
Add 1,35 kg/m when using 4 steel cables and 1 supply cable.

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Specifications TITAN – PI - Hoist

		Titan 403 - PI
Nominal traction (W.L.L.)		400 kg
Supply		3 x 400V / 50Hz + N + E
Current Intensity (by WLL)	Operating	2.5 A
	START	7.5 A
Engine Power		0.74 kW
Engine Speed		1400 RPM
Diameter steel cable		8,4 mm (breaking strength 52,3 kN)
Hoisting speed		8.5 m/min
Sound speed	UP	60 dBA
	DOWN	64 dBA
	Emergency descent	69 dBA



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CENTRAL CONTROL BOX (CCB)

Main Switch: Turn on the main switch. Main switch can be blocked using a padlock in the "off" position (padlock not included)

'Power on' indicator: The indicator lights up when the supply cable is connected correctly and the main switch is on.

Emergency stop: The emergency stop immediately cuts ALL power. In order to switch the power back on, turn the button in the direction indicated by the arrow.

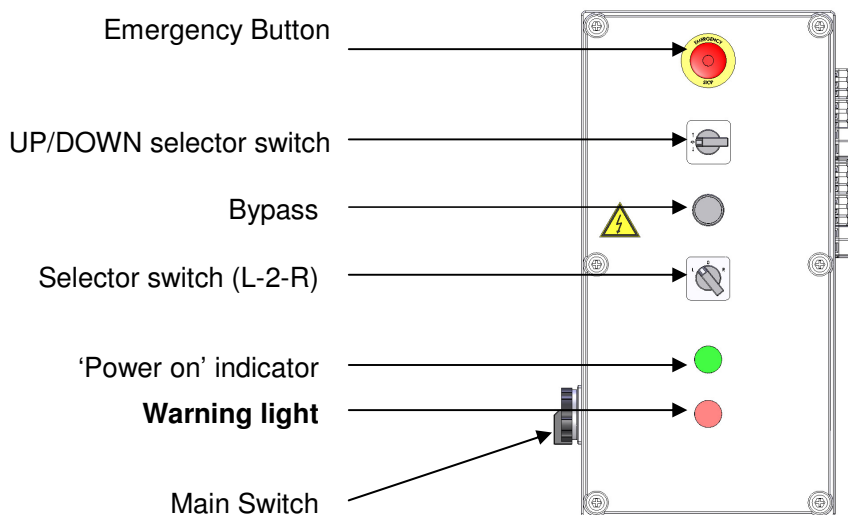
Hoist selector switch (Left / Both / Right): Allows you to operate the hoists separately (for reeving/unreeving or restoring the balance of the platform) or simultaneously.

'Hold-to-run' buttons for operating up- and downward

Bypass – button: To be used when the platform needs to be set entirely at the bottom or for de-reeving the hoists.

RED Warning light is ON in case of the following:

1. When either or both electro-mechanical overload detection devices are triggered. (Overload condition = useful load exceeded by 25%)
2. Emergency stop activated.
3. Ultimate top limit switch.
4. Thermal protection motor.



Note: The place of the buttons might change without warning. Always verify the name of the button on the CCB to make sure you use the correct button.

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SAFETY FUNCTIONS

	HAZARD		SAFETY ACTION		RESULT
1.	Breaking of suspension wire.	→	Suspension wire becomes slack. Slack rope safety device is activated.	→	Safety device will grab the safety wire and hold the platform.
2.	Inclination of the platform	→	Electronic tilting switch is activated.	→	Platform levels automatically by pushing up or down.
3.	Inclination of the platform.	→	Slack rope safety device is activated when the inclination is 10 degrees.	→	Safety device will grab the safety wire and hold the platform.
4.	Overspeed condition of a hoist.	→	Platform will become inclined and the slack rope safety device is activated	→	Safety device will grab the safety wire, and hold the platform.
5.	Overload condition or the platform is hooked under a part of the building.	→	Overload detection device is activated	→	Platform will be stopped. Up and down direction is cut off.
6.	Platform is a hitting part of the building, or reaches ground level.	→	Bottom limit trip bar is activated.	→	Platform will be stopped. Down direction is cut off.
7.	Platform has reached top-position.	→	Top limit switch is activated by striker plate.	→	Platform will be stopped. Up direction is cut off.
8.	Failure of top limit switch	→	Ultimate top limit is activated by striker plate.	→	Platform will be stopped. Up and down direction is cut off.
9.	Slack of suspension wire.	→	Slack rope safety device is activated.	→	Safety device will grab the safety wire and hold the platform.
10.	Slowly creeping down of one hoist.	→	The platform will become inclined. Slack rope safety device is activated.	→	Safety device will grab the safety wire and hold the platform.
11.	Power failure.	→	Release service brake manually by pulling the emergency descent lever.	→	Platform will move down at a lower speed than the normal downwards speed.

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BMU TITAN (CE)

INSTALLATION

Before the platform is packaged and shipped, it is hung up and fully tested by Power Climber.

1. Unpack the platform and examine it for any damage.
2. Place the platform underneath the suspension system. Check if the distance between the suspension points on the suspension system is equal to the distance between the suspension points on the platform.
3. Secreue the male power supply plug into the power socket.

IMPORTANT: *The power supply must be secured with a earth leakage circuit breaker (ELCB) of 30 mA and an automatic fuse of 16 A (type C). Make sure the electrical extension cords are dimensioned properly to prevent a voltage drop.*

4. Check if the hoists work if the UP-button is turned. The wire winding drums must rotate away from the platform. Make sure that only the hoists work when the DOWN-button is pushed (no operation of wire winders).

Note: *All phase 3 platforms are equipped with phase protection and will not work if not all phases are connected correctly. For further information see Appendix 6-D: Precautions / Limitations.*

WARNING: *Change NONE of the connections in the central control panel.*

Attach the supply cable to the suspension system using the cable retainer.

6. Make sure the steel wire ropes are long enough. (both suspension and safety rope)

IMPORTANT: *Required length of the steel cable = Height of the building + 5 m.*

7. Unwind the safety cables and put them on the roof. Attach the cables to the suspension system using the safety hooks and lower them to the ground.
8. Reeve the safety cables (see 'Reeving the steel cables').
9. Unwind the hoist cables and put them on the roof. Attach the cables to the suspension system using the safety hooks and lower them to the ground.
10. Reeve the safety cables (see 'Reeving the steel cables').

Tip: *Prevent the cables from becoming entangled by reeving the safety cables and the hoist cables separately.*

11. Next, carry out all the actions as described in Appendix 1-D: "Tests and Checks".
12. You can only make a first ride to the top after having fully carried out all tests. At the top, you can attach the drop plate

IMPORTANT:
Solely attach the drop plate to the safety cable.
The hoist cable must be allowed to move freely.

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INSTALLATION (Continued)

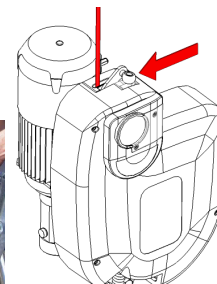
A) Reeving the steel wire ropes

WARNING:

Always reeve the safety rope first before reeving the suspension rope.

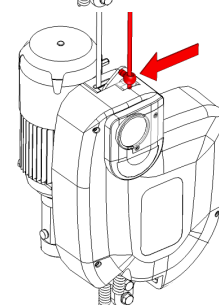
Safety rope

1. Put the slack rope lever in its upright position to open the clamps of the slack rope safety device and push the safety cable through the rear slot of the slack rope safety.
2. Put the tail end of the safety rope through the hole in the wirewinder.
3. Operate upward in order to tighten the cable.



Suspension rope

1. Put the slack rope lever in its upright position and put the cable through the eye of the slack rope lever and at the top of the hoist. Push until you experience resistance.
2. Select the correct hoist and operate upward to allow the cable to move through the hoist. The tail end of the cable will come out at the bottom of the hoist.
3. Repeat step 2 and 3 of the safety cable to load the suspension cable on the wire winder.



Tip: If there are problems with reeving the suspension cable, you can bend the tail end of the cable a little in the direction of the plate before putting the cable in the hoist.

B) Dereeving the steel wire ropes

Tip: Always unreeve the safety cables first and keep the hoist cable tight so the slack cable fall safety stays open and the safety cable is easy to remove.

Safety rope

Pull the safety rope manually out of the slack rope safety device and out of the wirewinding drum.

Suspension rope IMPORTANT: The bottom trip bar must be bypassed manually in order to be able to dereeve the hoist cable.

1. Push the bypass button on the central control panel.
2. Operate the hoist downward until the hoist cable no longer comes out of the hoist at the top. Then, pull out the rest of the cable by hand.

Warning:

**REEVING THE SUSPENSION CABLE INCORRECTLY IS THE MOST COMMON CAUSE OF ENTANGLEMENT OF CABLES
SOLELY USE ORIGINAL POWER CLIMBER STEEL CABLES**

BMU TITAN (CE)

DAILY CHECK LIST

TEST MUST BE PERFORMED BEFORE START OF OPERATION OF THE BMU.

Inspect the platform visually to detect damage, loose or missing parts before beginning with the check list.

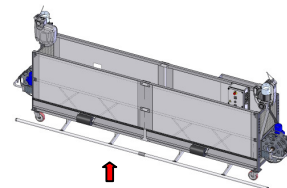
1. Check if the controls are function correctly:

- 'Power on' indicator lights up:
- 'UP' and 'DOWN' buttons
- Hoist selector switch.
- Check whether the hoists and the winding drums work properly when pushing the 'UP' button. The winding drum must turn away from the platform. The wirewinders cannot rotate when pushing the 'DOWN' button.



2. Bottom trip bar

Raise the bottom trip bar. Check if the downward movement has been cut. Push the bypass button to check if the platform is allowed to move downward again.

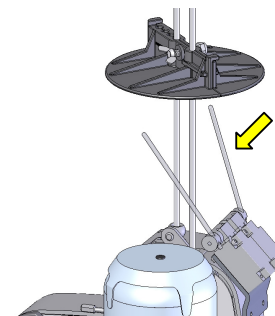


3. Emergency 

Push the emergency stop on the central control panel and check whether the platform can still move up- or downward. (to undo action, turn the button in the direction indicated by the arrow on the button)

4. top limit switch and ultimate top limit switch

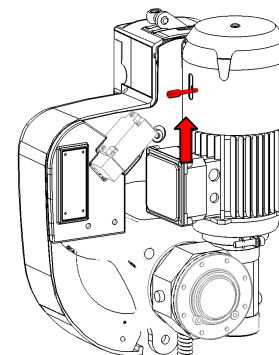
Push down the end switch lever and check whether the platform can no longer move upward but downward.
Push down the emergency (ultimate) end switch lever. Make sure the platform can move neither upward nor downward.
Repeat this procedure for the other hoist.



Move the platform to 1-2 metres above the ground to perform the following tests.

5. Slack rope safety device and 'no power' descent.

Cut the power supply using the main switch at the central control panel.
Pull up the brake lever on one hoist and check if you are able to lower the hoist at a controlled speed.
Continue pushing until the slack cable fall safety is activated (at about 10 degrees) so the platform cannot slope further.
Repeat the procedure by manually lowering the other hoist.



BMU TITAN (CE)

DAILY CHECK LIST (Continued)

6. Steel wire rope and power supply cable

Move the platform all the way to the top. Along the way check the safety cables and the hoist cables for kinks, broken wires or other damage.
At the same time, check the supply cable for damage.

IMPORTANT: In every day use, always be mindful of possible damage of the steel cables or the supply cable.

See Appendix 5-D: "Steel wire rope specifications" for further details on steel cable.

NEVER USE MATERIAL THAT DOES NOT FUNCTION PROPERLY!

CHECK LIST AFTER USE

1. Turn off the main switch on the central control panel. Lock if necessary.
2. Disengage the supply cable.
3. If the platform is not used for a longer period, it should be stored.

See Appendix 3-D: "Storage and maintenance" for more details.

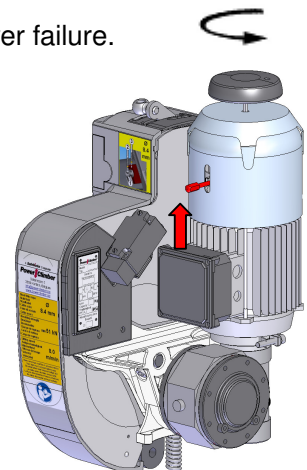
USE OF HAND WHEEL FOR MOVING UPWARD WITHOUT POWER SUPPLY

This might be necessary to reset the slack cable fall safety after a power failure.

1. Turn off the main switch on the central control panel.
2. Remove the plastic cover at the top of the motor shield to install the hand wheel.
3. Take the hand wheel and insert it in the hole at the top of the motor.
4. Turn the hand wheel simultaneously counter clockwise and lift the brake lever to open the brake.
5. Release the brake lever and repeat the procedure.

TIP: Hold the hand wheel firmly while the brake opens to prevent further lowering.

6. After use, put the plastic cover back in the hole and put the hand wheel back in its storage place!
7. Put on the main switch to continue working.



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