

# KLEEMANN HYDRO VVVF Kit The green solution for modernization





The KLEEMANN HYDRO VVVF Kit is the ideal solution for both modernization and new installations as it significantly improves the operation of a hydraulic lift, ensuring up to a 35% reduction in annual energy consumption and an extended lift lifespan with a smoother ride quality. It is compatible with all popular types of control panels and can be easily installed in just 4 hours.

### How it's used

The KLEEMANN HYDRO VVVF Kit can be easily and quickly adapted to hydraulic lifts equipped a BLAIN EV100 valve. It connects directly to the control panel, and special components are fitted to the valve block.

With the use of this kit, the motor now operates with an inverter. This results in a significant reduction in energy consumption and a noticeable improvement in the ride quality, which becomes smoother.





## **Advantages**

Energy savings

The energy savings can reach up to 35% annually.

# Extended elevator lifespan

With Hydro VVVF, the operating temperature levels of the elevator are reduced, thereby increasing the lifespan of the hydraulic oil. Simultaneously, there is less mechanical wear on components, contributing to the extension of the motor's lifespan.

# Smoother ride quality

The movements are now smoother, resulting in significantly reduced mechanical wear on components.

# Power factor improvement

Reactive power is reduced, while the power factor (PF) is improved.

# Quick conversion

Quick installation in just 4 hours, thus minimizing the elevator's downtime.

### Compatibility

It is compatible with all popular types of control panels, providing flexibility both during installation and elevator maintenance.

# Ideal solution for

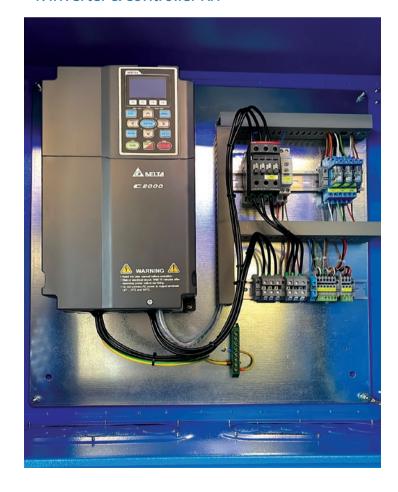
- Modernization
- New installations
- Buildings with energy-saving requirements
- Existing heavily-used installations (Shopping Centers, Hotels, etc.)

### Hydro VVVF Kit

# Components

The KLEEMANN Hydro VVVF Kit includes the cabinet with the inverter and control panel, as well as a range of special components for assembly on the valve.

### 1. Inverter & controller KIT



### 2. Valve Kit Components

For valve 3/4



For valve 1 ½



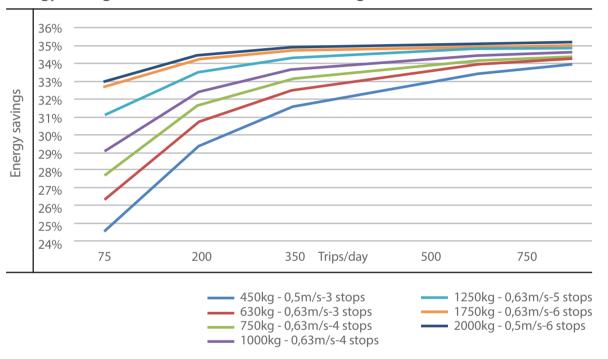
Hydro VVVF Kit 5

# Case Study

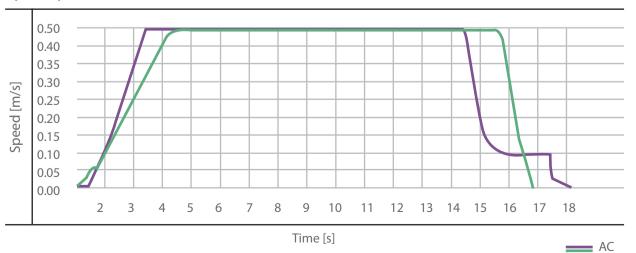
Existing installation of a hydraulic passenger-freight elevator with the following characteristics:

- Year of initial installation: 1995 (refurbishment of the power unit and control panel in 2017)
- Number of stops: 3
- Travel distance: 6.2 meters
- Rated load: 450 kg
- Speed: 0.5 m/s

### Energy savings from the use of VVVF (according to ISO 25745-2)



### Speed profile chart





### www.kleemannlifts.com

KLEEMANN has a global presence in over 100 countries. It is known for its wide range of products, high-quality standards, world-class design, and specialization in custom-made solutions. Continuously monitoring international trends, the company continues to innovate while remaining true to its global character.



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