

Pump Controls

Lowara Hydrovar - Variable Speed Drive



Applications

- Pressure regulations in the water systems of civil, residential and industrial buildings.
- Handling of liquids in conditioning systems where it is necessary to boost pressure in pipes with excessive flow resistance
- Water treatment and process engineering for constant delivery when pressure variations occur.

Variable Speed Drive

The hydrovar is an inverter designed specifically to operate on pump applications. It also incorporates protection software and other benefits specifically designed for pump system requirements. Examples are low water detection, motor thermal protection and over-voltage protection.

Retro-fit Site Surveys

Our free site surveys identify pump applications with varying duties and highlight where there is the potential to save energy.

To further test the system and identify savings we offer Hydrovar demonstration units and also log the operation. Our results are derived from the information gathered from your site as to provide an accurate calculations and truly reflect the energy savings available.

Specifications

Single Phase Models

Hydrovar HV2/.. Series

Power: 1.5 ÷ 2.2 kW

Mains voltage U: 1x230 V ,±10%, 50-60Hz

Motor voltage U1: 3x230V 50-60Hz

Three-Phase Models

Hydrovar HV3/.. Series

Power: 2.2 ÷ 45 kW

Mains voltage U: 3x400 V ,±10%, 50-60Hz

Motor voltage U1: 3x400V 50-60Hz

Hydrovar Multiple Pump Control

The Hydrovar can control up to 4 pumps operating in parallel. The microprocessors monitor the activity of each Hydrovar to adjust the overall system performance. The RS 485 interface enables the exchange of information between units, so that no other control panels are necessary

Constant Pressure Systems

In a multiple system the Hydrovar maintains a constant delivery pressure by starting or stopping the pumps sequentially according to the water demand.

Set up

In a multiple pump system the Hydrovar units are linked together through the RS 485 interface.

The operator sets each Hydrovar to "sequential mode" and assigns an address to each pumps (Addr. 1, Addr.2 etc).

Next, the operator enters the required system pressure and the pressure drop allowed before the next pump starts

Automatic Starting Sequence Inversion

The Hydrovar will automatically change the pumps' starting sequence so as to ensure uniform wear of each pump.

Since the changeover is based on the pumps operating time, the operator can set a value ranging from 1 to 100 hours.

Companies that invest in variable speed drive pumps can considerably reduce the levy's impact on their bottom line, and gain capital and maintenance cost benefits into the bargain.

The Hydrovar does much more than just change the motor speed. It truly manages your pump performance to match a wide range of system conditions, allowing energy savings of up to 70% in some applications. It is space saving from the elimination of sophisticated control cabinets and panels together with a reduced vessel size. It can be fitted to any standard IEC motor; high efficiency (Eff 1) fitted if required. Hydrovars can be used on motors from 0.55kW to 45kW

