



Hydrovar[®] and Packaged Hydrovar[®]

MOTOR MOUNT VARIABLE SPEED PUMP CONTROLLER AND INTEGRATED PUMP PACKAGES

BRHYDROVAR R5

 **GOULDS**
WATER TECHNOLOGY
a **xylem** brand

Hydrovar Variable Speed Drives

The Hydrovar controller is a combination of a variable frequency drive and a programmable logic controller (PLC) in one compact package, is mounted on the fan cover of a TEFC motor. Drives are pre-programmed with patented pump specific software, designed for centrifugal pumps. They match pump output to a wide range of system conditions while protecting the pump, the motor and the pumping system.



Fully programmable variable speed drives in space saving pump-mounted design

Hydrovar drives provide superior system pressure control over a wide range of flow rates. As demand changes the drive adjusts the speed of the motor to compensate, keeping output pressure nearly constant.



Hydrovar drives reduce energy usage and cost. By slowing the speed of the pump, the Hydrovar eliminates the inefficiencies of full speed systems. With lower energy and maintenance costs they can pay for themselves in under 2 years!



Easy

EASY TO INSTALL

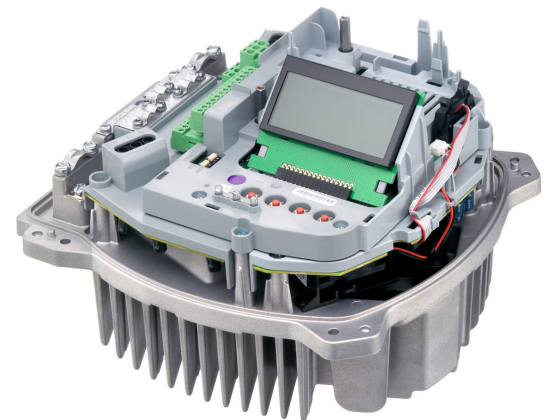
The HYDROVAR has been designed to easily accommodate both new and retrofit installations. A newly added wiring harness includes a separated wiring chamber with a dedicated cover. This makes connection plug-and-play simple, and it provides safe, easy access to the wiring while protecting the unit's electronic components. The clip-and-work mounting further simplifies the direct motor mounting process.

EASY TO COMMISSION AND OPERATE

A new start-up menu walks you through every step of the HYDROVAR'S commissioning process, and its larger LCD display shows an expanded range of parameters on each page, making it faster and easier to set up. In addition, the start-up menu provides an expanded range of pre-programmed parameters for standard motors; simply select your motor size and the HYDROVAR takes care of the rest.

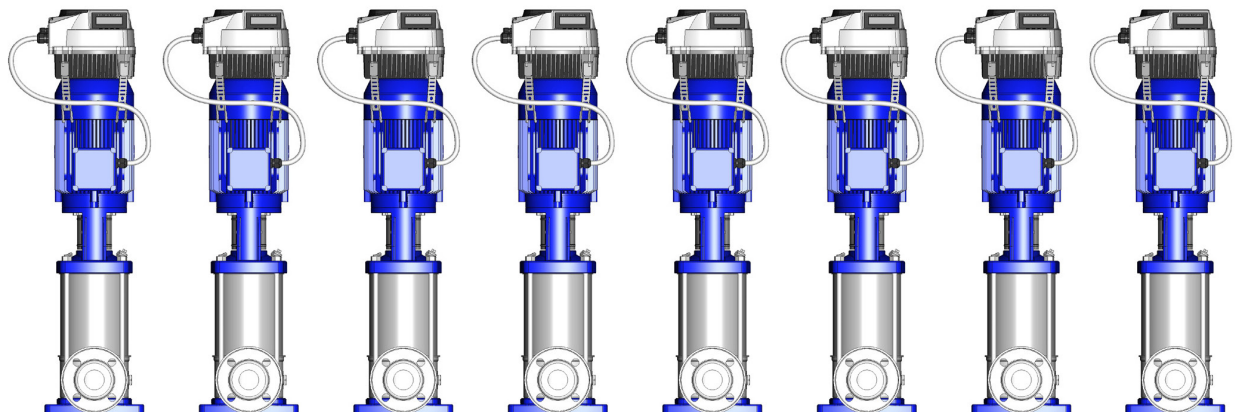
EASY TO INTEGRATE

The new HYDROVAR was designed to electronically integrate with your existing building management system. It comes standard with BACnet capability and offers the convenience of wireless communication through an optional WiFi card. What's more, the drive's I/O capabilities can be significantly expanded with the addition of the premium card option.



MULTI PUMP OPERATION (CASCADE CONTROLLER - SERIAL OR SYNCHRONOUS)

Using several Inverters in combination (up to 8 pumps can be combined)



**Up to 8
Master Inverters**

The Hydrovar Advantage

- Pump Specific Drive
- True 208 V
- No external contactors, PLC's, or motor protection required
- Easily retrofit on an existing fixed speed system
- Quick, Easy Programming
- Space saving design: Drive mounted directly on vertical or horizontal pump motor, with no extra wall space required.
- Software designed FOR pumps by pump engineers
- Control up to 8 pumps with full variable speed control
- Control up to 5 full speed pumps using 1 drive (with optional relay card and motor starters)
- MODBUS and BACnet
- Uses 4-20mA transducer similar to Aquavar product, 0-300 psi range.
Transducer (sensor) included with drive!





Packaged Hydrovar

- Pre-sized and selected drive
- Installed, programmed and tested in the factory
- UL Package Listing
- Quick installation as single unit, just bring power
- Kits offer pre-wired drive and fused disconnect to retrofit pumps in the field
- Complete e-SV Packages offer
 - Industry leading efficiencies
 - Broad performance range
 - Simple selection and ordering process
 - Factory programed and tested system



Goulds Water Technology

Hydrovar and Packaged Hydrovar

Hydrovar®

Hydrovar is the intelligent pump controller that matches the performance to system demand. The Hydrovar is easily mounted directly on the motor of the pump and will fit on any standard TEFC NEMA motor. This makes the Hydrovar an excellent choice for retrofitting and upgrading of fixed speed systems. There's no need for an external control panel when using Hydrovar.

APPLICATIONS

Designed for centrifugal pump systems requiring constant pressure, flow control or differential pressure in commercial and municipal applications.

FEATURES

- **Input Supply:** 1Ø Input 208/230 volt 2 - 5 HP
3Ø Input 208/230 volt 2 - 15 HP
3Ø Input 460 volt 2 - 30 HP
(208 - 240V $\pm$ 10%, 15 - 70 Hz)
(380 - 460V $\pm$ 10%, 15 - 70 Hz)
- **Motor Requirements:** 3 phase, TEFC, 208 - 230V or 460V, 0 - 60 HZ, Class F insulation, NEMA design A or B
- Motor mount to fan cover of TEFC motor for a packaged unit with a small footprint
- Maximum ambient temperature 104° F.
- **Indoor enclosure:** NEMA 1. Avoid excessive dust, corrosives, salts and direct sunlight.
- **Display:** Large LCD display. Easy to read pump language, pump on, system pressure, fault codes and system conditions are displayed.
- Control up to 8 pumps in parallel
- **Control:** Analog input control (4 - 20mA) two point control based on pressure, flow or differential pressure.
- **Alternate Input:** Up to two transducers may be used with each controller. These may be pressure, flow, differential pressure, temperature or other 4 - 20mA signals.
- Remote start/stop via switch input (low water, low pressure, etc.) and emergency stop.
- Dry relay contacts available for pump run and fault.
- **Protection:** Over/Under voltage, motor overload, short circuit, ground fault, programmable no/low flow shut-down, low suction pressure, pump run-out.
- MODBUS® and BACnet as standard. Optional Wi-Fi card for the flexibility of wireless connection.
- Advanced motor control to reduce heating and extend the lifetime of the motor
- Embedded THDi filter for better electricity quality from the grid, extending the lifetime of the equipment.
- **Pressure Transducer:** 316 SS, 17-4 PH stainless steel, 1/4" NPT connection, shielded two wire cable, 0 - 300 PSI range. Included with drive.



**Pump Mounted
Variable Speed Controller**





Goulds Water Technology is a global leader in the water technologies market, producing the world's leading line of residential water well pumps. The Goulds Water Technology product portfolio includes submersible and line shaft turbine, 4" submersible, jet, sump, effluent, sewage and centrifugal pumps for residential, agriculture and irrigation, sewage and drainage, commercial and light industrial use.

Also included are many pump control options for residential and commercial applications, including variable speed controllers, control panels and packaged booster systems.

For more information visit www.gouldswatertechnology.com



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