

# Aquavar CPC<sup>®</sup> Features & Benefits

- ✓ **Single Phase up to 50HP!** The Aquavar CPC provides SINGLE PHASE input units 208 -240 volt up to 50HP (124 Max Amps) More flexibility for rural applications. Up to 100HP for 3 phase 208-240 volt (248 Amps). Phase converters are **not** required! (motors must be three phase).
- ✓ **Line Reactors Built in!** A Patented input line choke provides the equivalent of a 3 – 5% impedance input line reactor. This provides protection from voltage line spikes, and reduces harmonics generated from the drive.
- ✓ **Dual Pressure Settings with one transducer!** The operator can provide two system pressure settings with the included transducer. With a simple switch closure, two pressures can be achieved in your system. Useful for irrigation, industrial process and municipal applications where two system pressures are required during operation.
- ✓ **Multi-Pump (up to 4 pumps) without additional panels!** All Aquavar units can be connected via a shielded cable to provide complete lead-lag, alternation and pump rotation in larger system. Useful for future expansion and saves cost on purchasing additional panels and PLC's.
- ✓ **Adjustable Pressure Drop!** Allows a system pressure drop before the controller starts the pumps. Provides more flexibility with leaking piping systems. This prevents unwanted cycling of the pump without additional switches. (e.g. golf/irrigation)
- ✓ **Friction Loss Compensation!** Programming can be set to provide a system pressure boost as flow increases. Can be programmed to meet a system curve. Helpful to offset friction loss in long pipe runs.
- ✓ **Soft-Start and Adjustable ramps!** Provides pump soft start and shutdown to reduce system water hammer. Increase life of pump and motor without anymore “hard” starts.
- ✓ **Tank Size Reduction!** Volume of tank is greatly reduced for variable speed controlled system. Typical tank size is only 10-25% of total flow for one pump in the system. Reduced labor and expense of large tank systems or tank rooms.
- ✓ **Control Valves are not required!** The Aquavar provides the variable speed control to the pump system. It starts stops and maintains the required pressure based on a pressure reference. No “choking” or PRV is required to keep the pump on the curve. The pump is automatically controlled by the Aquavar. No by-pass orifice is required at low or no flow conditions, which decreases mechanical safeguards and maintenance.

- ✓ **Pump Protection built in!** All Aquavar units have programming designed for centrifugal pumps only (e.g. turbines, sewage, submersible, end suction). Pump protection can be set up for loss of suction, “run-out”, and loss of prime. The pump motor is also protected from over-current, over/under voltage, phase loss, short circuit, and grounding. Ease of programming, designed for the water pump industry!
- ✓ **Control Panel’s are not required!** The Aquavar is the control for the pump system. Starters, overloads, alternators are not required.
- ✓ **Ease of Maintenance!** Aquavar units are electronic and require almost no maintenance. Keep the unit cool, dry and relatively dust free shall give the operator years of hassle free service.
- ✓ **Simple programming!** The Aquavar CPC has programming “Wizards” which assist in the pump programming. The Wizard actually asks the operator to enter parameters based on that particular system. This speeds programming and start up time, and you do not need a Systems Engineer to do it!
- ✓ **Energy Savings!** Compared to a standard fixed speed system, the Aquavar provides up to 60% energy savings. (depending upon use) The Aquavar can also estimate energy savings right in the programming, and can show savings to the operator. This information can be sent to a building management or SCADA system via analog signal.
- ✓ **SCADA and MODBUS compatible!** Provides various digital/ analog signals for relay to building management systems and control rooms. Remote monitoring and control is possible for pump ON/OFF, pump run, pump fault, system pressure, motor current, pump speed and more.
- ✓ **Control Fixed Speed Pumps!** Three relay contacts are provided for controlling fixed speed or “slave” pumps in addition to the Aquavar. That means you can operate up to 4 pumps with one Aquavar. One variable speed pump and three fixed speed pumps. (starter panel must be supplied for fixed speed) Used for emergency or large flow demands, or in conjunction with “jockey” pumps. Relays can be programmed for ON/OFF with delay time in seconds to prevent cycling.
- ✓ **Designed for Centrifugal Pumps!** The Aquavar has always been designed for pumps and pump systems ONLY! This means that the product is sold and installed by pump professionals for the pumping industry. Single source suppliers can now provide your pump, motor, variable speed drive, parts and service from one company.