

iQpump: The Ag Water Management Industry's Leading VFD



Reduce your energy and maintenance costs by up to 25-50% with the intelligent iQpump VFD from Valley, utilizing a Yaskawa VFD as the backbone. Adjust the pump speed to exactly match your pressure and flow requirements. iQpump software features specific macros designed for Valley with pivot operation in mind, making one-step setup and automation easy.

Key Features:

- Assembled and performance-tested in the USA
- The most advanced pump software in the industry
- Resettable circuit breaker with flange disconnect
- UL-approved NEMA 3R enclosure for both service entrance and branch circuit protection
- The best warranty in the market

Why Use a VFD?

Flexibility

- Constant pressure results in cost savings
- Multiple pivots can be supplied by one pump
- Handles changes in field elevation
- Adjust pressure in case of end gun shutoff or flow variations (VRI)

Conservation

- Pumps only what the well can manage
- Reduces operation and maintenance costs

Efficiency

- Uses only the horsepower needed
- Controls multiple pumps with no extra PLC (added cost)

iQpump Variable Frequency Drive

Clean, efficient variable-speed motor control with single-phase power

Yaskawa's industry-leading Single-Phase Converter (SPC) cleanly converts single-phase AC power to DC power for Yaskawa variable frequency drives. The SPC combines Yaskawa reliability and drive technology with motor control solutions for businesses in remote areas. The SPC eliminates the need to oversize variable frequency drives for single-phase applications while reducing distortion to less than 10% iTHD. With lower input harmonics and near-unity power factor, the SPC also eliminates the need to significantly oversize transformers in single-phase applications, reducing overall installation costs.

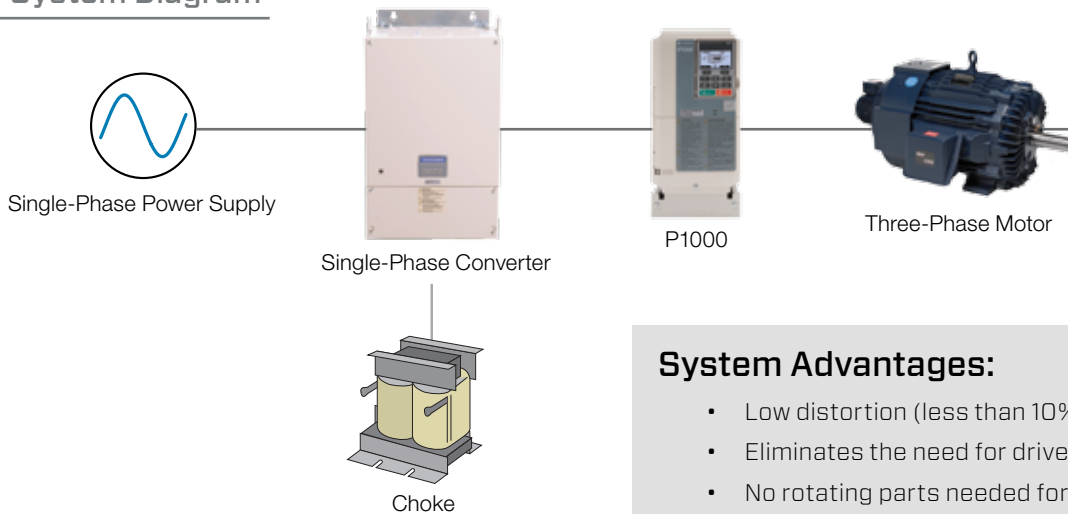
Single-Phase Conversion VFD



The Single-Phase Converter addresses common issues with AC motors powered from single-phase input:

- Limited single-phase motor options
- Inefficient use of power due to choppy current harmonics
- Increased maintenance of rotating parts and tuned circuits

System Diagram



System Advantages:

- Low distortion (less than 10% iTHD) reduces installation costs
- Eliminates the need for drive oversizing
- No rotating parts needed for phase conversion
- UL-listed NEMA 3R enclosure with circuit breaker that can be reset
 - Balances any choppy power before powering motor
 - Reduces any radio or GPS interference caused by harmonic distortion