



## Progressive Cavity Pump (PCP) Drive Features

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- Improves production, efficiency, and reliability
- Real-time multiple constraint optimization
- Rod, tubing, casing, pump, fluid, and reservoir models
- Automated system parameter identification
- Manual, preset, and remote speed control
- Pump speed and power flow optimizers
- Extend range operation to twice base speed
- Coordinated dual motor control for large pumps
- Motor voltage, current, and frequency monitors
- Motor and rod speed monitors and limiters
- Motor and rod torque monitors and limiters
- Downhole pump speed and torque monitors
- Sensorless fluid level and fluid flow estimation
- Optional downhole pressure and surface flow sensor inputs
- Optional casing and tubing pressure sensor inputs
- Density and flow loss from fluid and gas properties
- Pump suction and discharge pressure monitors
- Pump differential pressure monitor and limiter
- Pump flow monitor and production accumulator
- Fluid level monitor and control
- Dual speed pump-off control prevents sand-in
- Gas production monitor and optimizer
- Stick-slip oscillation damping
- Low torque and speed fault detection
- Automatic restart from faults and power outages
- Cyclic and time-of-use energy optimizers
- Input power meter and energy efficiency monitor
- Input, motor, and lift power monitors
- Time-stamped event, warning, and fault logging
- Standard RTU and ANSI serial communications
- Optional ControlNet, Modbus Plus, Profibus, and Ethernet
- Optional 900 MHz and 2.4 GHz wireless communications
- Optional interface for multichannel analog data logging
- Windows computer and Palm-type handheld interface software
- User-programmable Excel spreadsheet report generator software

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