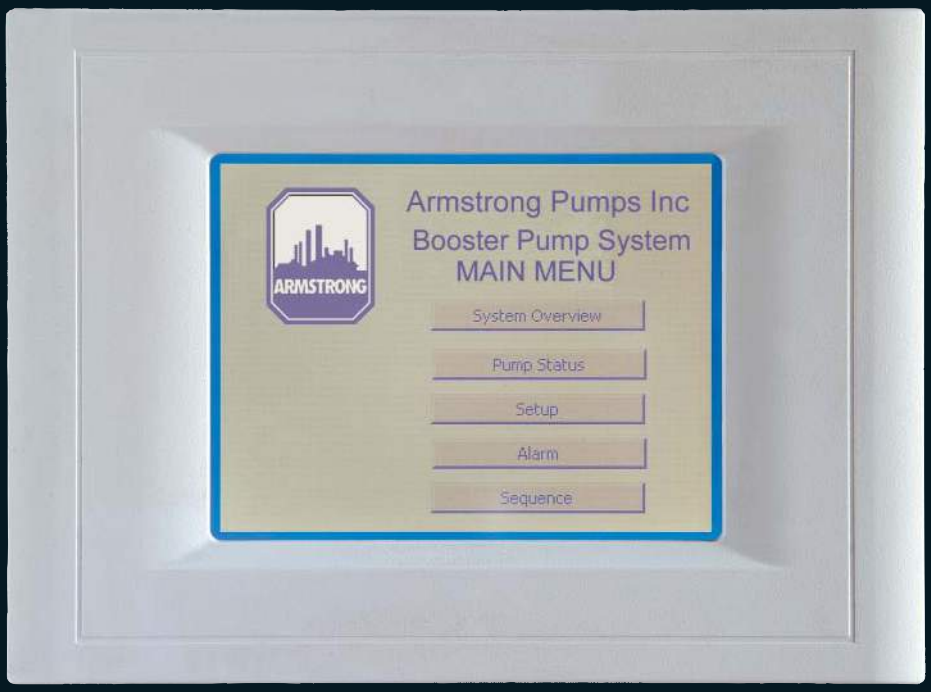
ARMSTRONG

Series 6000V



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Variable Speed Booster Controller

Variable Speed Booster Controller

Maintaining our commitment of providing value to our customers, Armstrong's variable speed controller incorporates the latest energy saving motor-drive technology with a user-friendly interface, providing quiet and reliable operation while minimizing the energy consumption of a booster pump system.

Standard Features

- **Watertight touch-screen interface**
- **Easy to read backlit display**
- **Password protected system parameters**
- **Field-adjustable, on-screen display of pump system parameters:**
  - System pressure (psi / kPa)
  - Supply pressure (psi / kPa)
  - Motor voltage
  - Motor amperage
  - Pump run status
  - Operating rpm
- **Best-Operating-Point (BOP) Sequencing**
- **End-of-curve pump protection**
- **On-screen alarm display of:** low suction pressure, low system pressure, high system pressure, high suction pressure, controller failure, pump failure, suction or discharge transmitter failure, drive fault
- **On-screen alarm fault description**
- **Audible alarm**
- **Non-volatile memory**
- **Factory settings reset button**
- **300 psi (2068 kPa) rated, 316 Stainless Steel suction and discharge pressure transducers**
- **24-hour automatic alternation**
- **Elapsed run time meters with reset**
- **Built-in pump start-delay and minimum run timers**
- **Remote indication:** individual pump status, drive / motor failure, low system pressure, high system pressure, low suction pressure or low supply level
- **No-Flow shutdown** (when supplied with drawdown tank)
- **On-screen adjustment of all sequencing and alarm setpoints**
- **Drawdown tank optimization**
- **Remote start / stop**
- **On-line troubleshooting assistance**

Typical Specification

Controllers shall be housed in a NEMA Type1 enclosure with a NEMA Type4 interface and one main disconnect. Control panel shall be equipped with virtual Hand-Off-Auto control switches on display panel for user control of pump motors. Control transformer shall be fused. Motor drives shall be externally protected.

Ambient Environmental Ratings: **Temperature:** 32°F to 140°F (0°C to 60°C) **Humidity:** 5% to 95%, non-condensing

All necessary system information regarding pumps and drives shall be accessible from the touch screen display. The variable speed controller shall incorporate a 3.5" by 4.5" (89 mm by 114 mm) LCD touch screen with graphical display of pump status. Access to the inside of the controller shall not be required to change system parameter settings, alarm settings or reset alarms. System parameters must be accessible without additional tools or devices. Motor voltage, motor current and motor rpm shall be displayed without the need to open control panel door.

The variable speed controller shall be capable of controlling up to 4 pumps, using a 0-10 mV analog signal using pressure as the control variable. The pumps shall be sequenced by a best operating point algorithm. Speed, pressure or flow sequencing are unacceptable.

Variable speed drives supplied with every system shall have the following features: detachable operator panel, screwless control terminals, latest IGBT technology, digital microprocessor control, flux current control (FCC) for improved dynamic response and optimized motor control, programmable V / f characteristic, flying restart, slip compensation, ramp smoothing, fast current limit (FCL) for trip free operation, compound braking for rapid controlled braking, 50% overload capability for a period of 60 s within 5 min. in relation to the rated output current, overvoltage / undervoltage protection, inverter over-temperature protection, earth fault protection, short circuit protection, % motor thermal protection, locked rotor protection and stall prevention.

The controller shall store the software in EPROM. All factory set parameters shall be restorable at any time by a single point reset button.

The entire controller and packaged system assembly shall be listed and labeled by a nationally recognized testing laboratory. The controller shall be listed and shall bear the label of the Canadian Standards Association (CSA) and Underwriters Laboratories (UL).

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