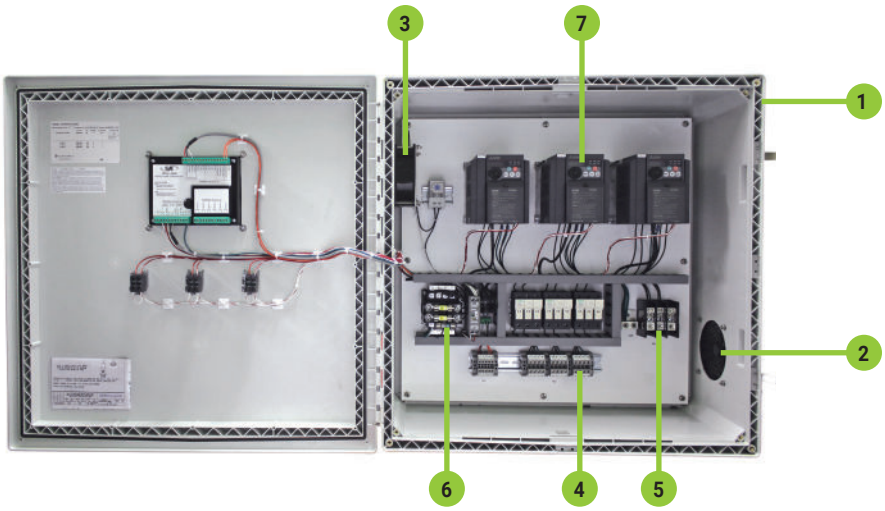
ENDURA™ PRESSURE BOOSTER CONTROL PANEL

Pre-engineered Variable Frequency Drive Control Panels for Indoor Use



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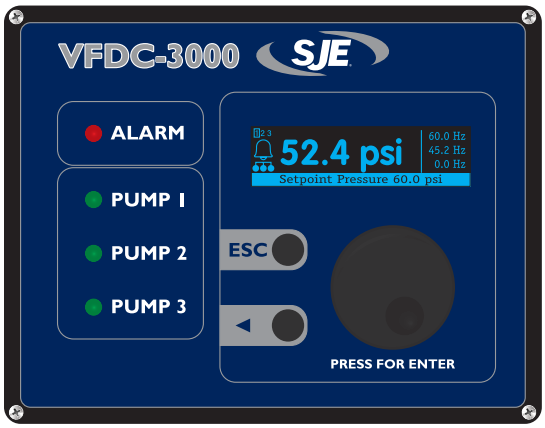
The Endura™ Duplex or Triplex booster control panels feature the VFDC-3000 controller for commercial pressure booster pump, well pump, or irrigation applications using (2) or (3) Variable Frequency Drives (VFDs). As flow and head conditions change, the controller calls for the required number of pumps to activate and automatically adjusts the speed of each VFD to maintain a constant discharge pressure to match the set point value.

Control panel features include:

- Simple display with pressure and pump status
- Fast and intuitive menu navigation and setup
- Elapsed Time and Cycle Counter for each pump
- Low pressure Alarm (pipe burst or run dry protection)
- High pressure alarm and protection
- System Fault Log
- Standard package includes (1) 0-200 PSI pressure transmitter 1/4" NPT Male, NEMA 4X rated with 20 ft (6m) of cable
- Two-year limited warranty on control panel
- One-year limited warranty on the pressure transmitter



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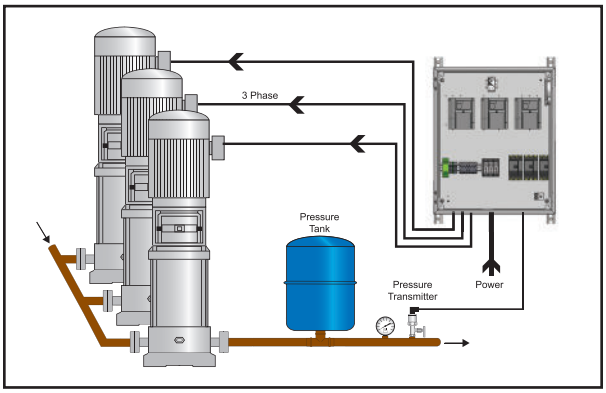
COMPONENTS

1. Polycarbonate or painted steel (see table on back page), wall mounted single door enclosure; NEMA 1 indoor rated
2. Intake filter for VFD cooling
3. Exhaust fan and thermostat for VFD cooling
4. Terminal blocks for easy field wiring
5. Circuit Breaker or fuses for branch circuit protection
6. Multitap transformer 480/240/208:120 VAC
7. Variable frequency drives
8. Hand/Off/Auto selector switches
9. VFDC-3000 Controller
   a. High visibility blue OLED display 2.7 inches (6.86 cm) diagonal 64x256 pixel
   b. Rotary/Push button for easy menu navigation and editing
   c. Escape push buttons exits to main menu without saving changes
   d. Back arrow steps back one menu level and changing value adjustment scale
   e. Pump Run indicator green LEDs (3)
   f. Alarm indicator red LED

Note: Schematic/Wiring Diagram and Pump Specification Label are located inside the panel.



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Part #	Description	Model	Motor Amps	Motor HP	Branch Circuit Protection	Enclosure Size (inches)	Ship Weight
1066673	Endura™ Duplex 208/240V, 3-5 HP	EN32-240-16.5	16.5	3-5	Circuit Breakers	24x24x10 Polycarbonate	50.7 lbs.
1066674	Endura™ Duplex 208/240V, 7.5-10 HP	EN32-240-31.8	31.8	7.5-10	Circuit Breakers	24x24x10 Polycarbonate	61.7 lbs.
1066675	Endura™ Duplex 208/240V, 15-20 HP	EN32-240-58.0	58.0	15-20	Circuit Breakers	36x30x12 Painted Steel	114.6 lbs.
1066676	Endura™ Duplex 480V, 3-5 HP	EN32-480-8.0	8.0	3-5	Fuses	24x24x10 Polycarbonate	50.7 lbs.
1066677	Endura™ Duplex 480V, 7.5-10 HP	EN32-480-16.0	16.0	7.5-10	Fuses	24x24x10 Polycarbonate	61.7 lbs.
106678	Endura™ Duplex 480V, 15-20 HP	EN32-480-29.5	29.5	15-20	Circuit Breakers	36x30x12 Painted Steel	114.6 lbs.
1064132	Endura™ Triplex 208/240V, 3-5 HP	EN33-240-16.5	16.5	3.5-5	Circuit Breakers	24x24x10 Polycarbonate	55.1 lbs.
1066679	Endura™ Triplex 208/240V, 7.5-10 HP	EN33-240-31.8	31.8	7.5-10	Circuit Breakers	36x30x12 Painted Steel	114.6 lbs.
1066680	Endura™ Triplex 208/240V, 15-20 HP	EN33-240-58.0	58.0	15-20	Circuit Breakers	36x36x12 Painted Steel	130.1 lbs.
1064133	Endura™ Triplex 480V, 3-5 HP	EN33-480-8.0	8.0	3-5	Fuses	24x24x10 Polycarbonate	55.1 lbs.
1066681	Endura™ Triplex, 480V, 7.5-10 HP	EN33-480-16.0	16.0	7.5-10	Fuses	36x30x12 Painted Steel	114.6 lbs.
1066682	Endura™ Triplex 480V, 15-20 HP	EN33-480-29.5	29.5	15-20	Circuit Breakers	36x36x12 Painted Steel	130.1 lbs.

OPTIONS	Description
MD	Main Disconnect with Door Operator (not available on Motor HP Range 15-20)
PM	Phase Monitor with Digital Display (not available on Motor HP Range 15-20)
1036351	Surge Arrestor with Bracket

NOTE: HP rating is based on standard NEMA B 4-pole motor (used for indication only, use nameplate FLA for sizing). The output voltage of the VFD cannot exceed the incoming voltage. Example: 208V in, 208V out (max).

SELECTING THE CORRECT VFD CONTROL PANEL

Verify your system requirements before ordering. Endura™ Control Panels cannot be returned.

1. Determine the voltage available on site.
2. Select pumps with the same voltage (motor must be 3 phase).
3. Check pump motor nameplate Full Load Amps (FLA) for proper VFD sizing.
4. Select a VFD with an output amp rating higher than motor FLA.
5. Use motor Service Factor Amps (SFA) for submersible well pump applications for VFD sizing.

MAXIMUM MOTOR CABLE LENGTHS

For 208V-240V pumps: 400 ft (122m). For cable lengths greater than 400 ft (122m), use a load reactor for each pump. Do not exceed 800 ft (244m)
For 380V-480V pumps: 50 ft (15m). For cable lengths greater than 50 ft (15m), use a load reactor for each pump. Do not exceed 300 ft (91m).

SPECIFICATIONS

POWER: Available HP Range 208V~240V or 380~480V
Three Phase, 3.0HP - 20.0HP

CONTROL: P.I.D. control
Adjustable electronic overload
Auto Start on pressure drop (adjustable)
Auto Stop on low Hz (No-Flow - sleep mode)
Lead/Lag/Lag-Lag operation
Auto alternation on Run Time

ENVIRONMENTAL:
Operating temperature: 32ºF to 113ºF (0ºC to 45ºC)
Storage temperature: -4ºF to 140ºF (-20ºC to 60ºC)
Altitude: maximum of 3,280 ft (1,000m) above sea level