

AE-SERIES

Duplex Pump Controls

Liberty Pumps®

A Family and Employee Owned Company

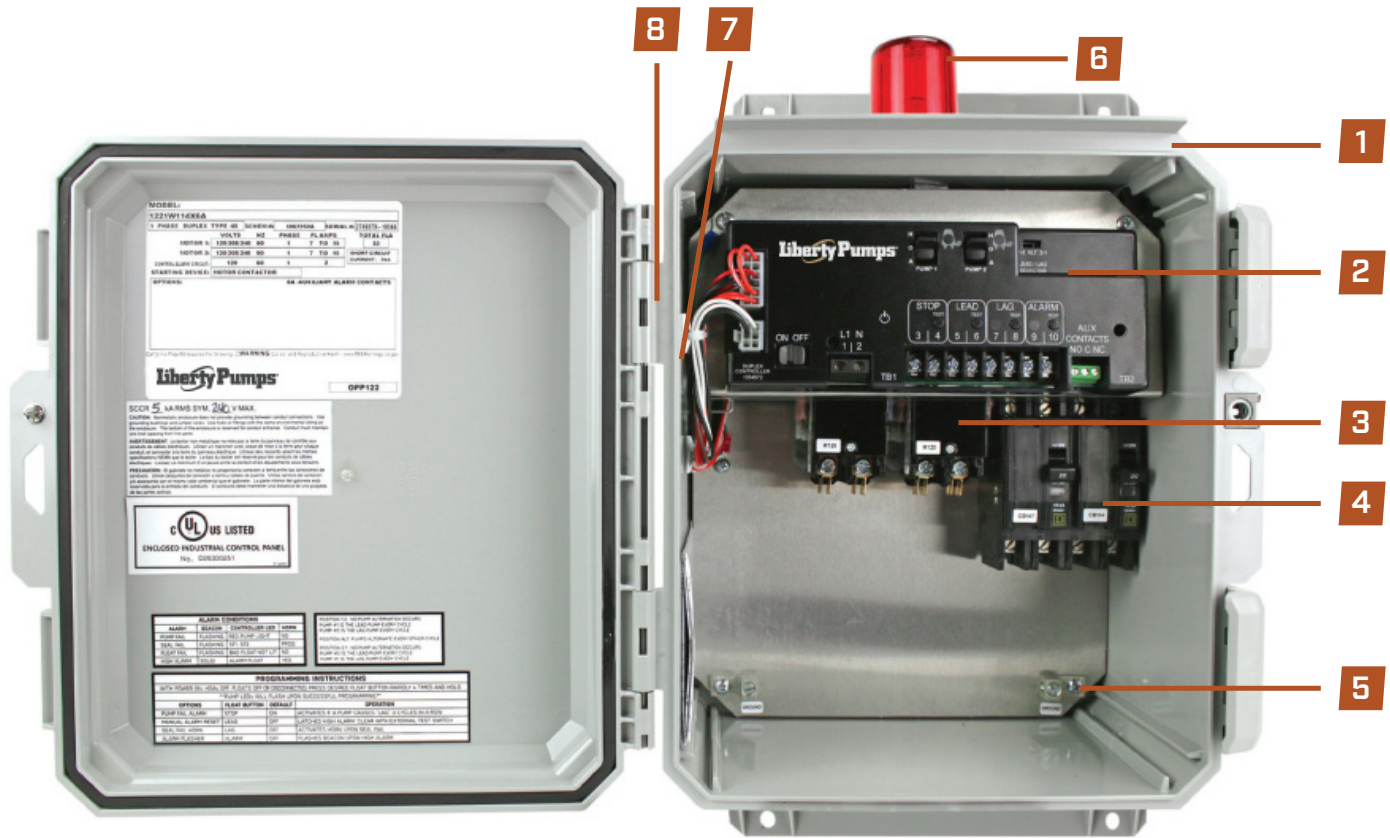
AE-Series duplex panels control two 1-phase or 3-phase pumps in water and sewage installations. This panel includes a new innovative duplex controller for pump control, alternation and alarm; including float switch status LEDs, control/alarm power ON/OFF switch with LED indicator, pump run LEDs, HOA switches, pump lead/lag selector switch, auxiliary contacts and more.

The control panel features built-in lag pump delay time, pump failure detection, and float switch out-of-sequence notification. In addition, there are user-selectable field programmable operations: alarm steady-state or flashing; alarm auto reset or manual reset; pump failure notification.



innovate. evolve.

AE-Series Duplex Panels



1-phase NEMA 4X shown

Components

1. Newly designed larger NEMA 4X enclosure for indoor/outdoor use
 - a. Drip shield
 - b. Heavy-duty wide clamping securable latches (2)
 - c. Stainless steel 1/4 turn cover set screw
 - d. Low profile hinged lockable cover
 - e. Integral mounting flanges
2. Duplex Controller
 - a. Pump HOA switches with green/red LED indicators
 - b. Control power ON/OFF switch
 - c. Power ON green LED indicator
 - d. Float switch status red LED indicators
 - e. Float switch push-to-test buttons
 - f. Pump selector switch
 - g. Auxiliary alarm contacts
 - h. Terminal blocks for incoming power and float switches
3. Magnetic motor contactors control pumps by switching electrical lines.
4. Circuit breakers provides pump disconnect and branch circuit protection
5. Ground lugs
6. Red LED alarm beacon
7. Alarm horn
8. Exterior alarm test/normal/silence switch

Standard Features

Enclosure*: 12" x 10" x 6"; NEMA 4X – ultraviolet stabilized thermoplastic for outdoor use; NEMA 1 – metal for indoor use. Certain options may increase enclosure size.

Magnetic Motor Contactor: Controls pump by switching hot electrical lines.

HOA Switches: Offer manual operation of pumps (on circuit board).

Green Pump Run Indicators: On circuit board

Control ON/OFF Switch: On circuit board

Float Switch Terminal Block: On circuit board

Control/Alarm Auto Reset Fuses

3-phase panel measures 14" x 12" x 6". Multi-tap transformer (208/240/480 VAC primary) provides 120V control voltage. Motor protective switch provides adjustable overload, branch circuit protection and pump disconnect.

Control/Alarm Power ON Indicator: On circuit board.

Float Switch Status Indicators: Stop, lead, lag/alarm, alarm mounted on circuit board. Float switch push-to-test buttons.

Circuit Breakers: Provide pump disconnect and branch circuit protection.

Connection Terminal Block

Auxiliary Contacts

Ground Lug

Alarm:

- NEMA 4X: Red beacon and horn (83 to 85 dB), exterior test/normal/silence switch.
- NEMA 1: Door mounted red indicator and buzzer mounted internally (83 to 85 dB), exterior test/normal/silence switch.

Float Switch Specifications

All standard duplex panels come equipped with (3) or (4) mercury-free pilot-duty float switches (depending on model). 20' cord standard. Optional lengths available. External weights or pipe clamp mounts required.

Cable: Flexible 18 gauge, 2 conductor

Electrical: 1A, 120/230 VAC, 50/60 Hz

Float Switch: Polypropylene

Maximum fluid temperature: 140°F

Liberty Pumps can customize a panel to your specific pump needs.
Please contact us for available options and ordering information.

1-800-543-2550

AE-Series Duplex Panels

| MODEL | VOLTS | PHASE | FULL LOAD AMPS [Must match pump] | ENCLOSURE TYPE | FLOAT SWITCHES |
|------------------|-------------|-------|-------------------------------------|----------------|----------------|
| 1-Phase | | | | | |
| AE21L=3 | 120/208/240 | 1 | 0 - 14.9A | NEMA 1 | 3 |
| AE21H=3 | 120/208/240 | 1 | 15 - 20A | NEMA 1 | 3 |
| AE21L=4 | 120/208/240 | 1 | 0 - 14.9A | NEMA 1 | 4 |
| AE21H=4 | 120/208/240 | 1 | 15 - 20A | NEMA 1 | 4 |
| AE24L=3 | 120/208/240 | 1 | 0 - 14.9A | NEMA 4X | 3 |
| AE24H=3 | 120/208/240 | 1 | 15 - 20A | NEMA 4X | 3 |
| ***AE24HC=3-3 | 120/208/240 | 1 | 15 - 20A | NEMA 4X | 3 |
| AE24L=4 | 120/208/240 | 1 | 0 - 14.9A | NEMA 4X | 4 |
| AE24H=4 | 120/208/240 | 1 | 15 - 20A | NEMA 4X | 4 |
| AE24K=3 | 120/108/240 | 1 | 20 - 30A | NEMA 4X | 3 |
| AE24K=4 | 120/208/240 | 1 | 20 - 30A | NEMA 4X | 4 |
| ****AE24LC2=3 | 120/208/240 | 1 | 0 - 14.9A | NEMA 4X | 3 |
| ****AE24LC2=4 | 120/208/240 | 1 | 0 - 14.9A | NEMA 4X | 4 |
| ****AE24HC2=3 | 120/208/240 | 1 | 15 - 20A | NEMA 4X | 3 |
| ****AE24HC2=4 | 120/208/240 | 1 | 15 - 20A | NEMA 4X | 4 |
| ****AE24KC2=3 | 120/208/240 | 1 | 20 - 30A | NEMA 4X | 3 |
| ****AE24KC2=4 | 120/208/240 | 1 | 20 - 30A | NEMA 4X | 4 |
| 3-Phase** | | | | | |
| AE34=3-131 | 208/240/480 | 3 | 1.6 - 2.5A | NEMA 4X | 3 |
| AE34=3-141 | 208/240/480 | 3 | 2.5 - 4.0A | NEMA 4X | 3 |
| AE34=3-171 | 208/240/480 | 3 | 4.0 - 6.3A | NEMA 4X | 3 |
| AE34=3-191 | 208/240/480 | 3 | 6 - 10A | NEMA 4X | 3 |
| AE34=3-511 | 208/240/480 | 3 | 9 - 14A | NEMA 4X | 3 |
| AE34=4-131 | 208/240/480 | 3 | 1.6 - 2.5A | NEMA 4X | 4 |
| AE34=4-141 | 208/240/480 | 3 | 2.5 - 4.0A | NEMA 4X | 4 |
| AE34=4-171 | 208/240/480 | 3 | 4.0 - 6.3A | NEMA 4X | 4 |
| AE34=4-191 | 208/240/480 | 3 | 6 - 10A | NEMA 4X | 4 |
| AE34=4-511 | 208/240/480 | 3 | 9 - 14A | NEMA 4X | 4 |
| AE54=3-121 | 575 | 3 | 1.6 - 2.5A | NEMA 4X | 3 |
| AE54=4-121 | 575 | 3 | 1.6 - 2.5A | NEMA 4X | 4 |
| AE54=3-151 | 575 | 3 | 2.5 - 4.0A | NEMA 4X | 3 |
| AE54=3-161 | 575 | 3 | 4.0 - 6.3A | NEMA 4X | 3 |
| AE54=4-151 | 575 | 3 | 2.5 - 4.0A | NEMA 4X | 4 |
| AE54=4-161 | 575 | 3 | 4.0 - 6.3A | NEMA 4X | 4 |
| AE34=3-611 | 208/240/480 | 3 | 13 - 18A | NEMA 4X | 3 |
| AE34=4-611 | 208/240/480 | 3 | 13 - 18A | NEMA 4X | 4 |
| AE34=3-621 | 208/240/480 | 3 | 17 - 23A | NEMA 4X | 3 |
| AE34=4-621 | 208/240/480 | 3 | 17 - 23A | NEMA 4X | 4 |
| AE54=3-405 | 575 | 3 | 6 - 10A | NEMA 4X | 3 |
| AE54=4-405 | 575 | 3 | 6 - 10A | NEMA 4X | 4 |

35' and 50' cord lengths available. Add "-3" or "-5" suffix to model number. Example: AE21L=3-3 for 35' cord.

NOTE: AE-Series panels come with variable amp ranges and must be ordered with the correct matching full load amp to that of the pump(s) being used. Use the chart above to select the proper amp range or consult the factory for technical assistance.

3-phase panels come equipped with thermal overload protection that must be properly sized to the pump's full load run amps. Please consult factory for proper panel selection. All 3-phase "standard" panels come with NEMA 4X enclosure.

*** AE24HC=3-3 includes start/run capacitors and start relay for use with LSG202M-C and LSGX202M-C models.

**** Capacitor kit required. (Purchased separately.)