

## DESIGN ENVELOPE 4382 DUALARM | 0408-005.0 | SUBMITTAL

File No: 100.4638  
 Date: OCTOBER 30, 2015  
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Job: \_\_\_\_\_ Representative: \_\_\_\_\_  
 \_\_\_\_\_ Order No: \_\_\_\_\_ Date: \_\_\_\_\_  
 Engineer: \_\_\_\_\_ Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Contractor: \_\_\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

### PUMP DESIGN DATA

No. of pumps: \_\_\_\_\_ Tag: \_\_\_\_\_  
 Capacity: \_\_\_\_\_ USgpm (L/s) Head: \_\_\_\_\_ ft (m)  
 Liquid: \_\_\_\_\_ Viscosity: \_\_\_\_\_  
 Temperature: \_\_\_\_\_ °F (°C) Specific gravity: \_\_\_\_\_  
 Suction: 4" (100mm) Discharge: 4" (100mm)

**OSHPD Seismic Certification OSP-0422-10**  
**UL STD 778 & CSA STD C22.2 NO.108 certified**

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency: NEMA premium 12.12

### MAXIMUM PUMP OPERATING CONDITIONS

#### ANSI 125

175 psig at 150°F (12 bars at 65°C)  
 140 psig at 250°F (10 bars at 121°C)

#### ANSI 250

250 psig at 150°F (17 bars at 65°C)  
 250 psig at 250°F (17 bars at 121°C)

- Tolerance of ±0.125" (±3 mm) should be used
- For exact installation, data please write factory for certified dimensions

### MECHANICAL SEAL DATA

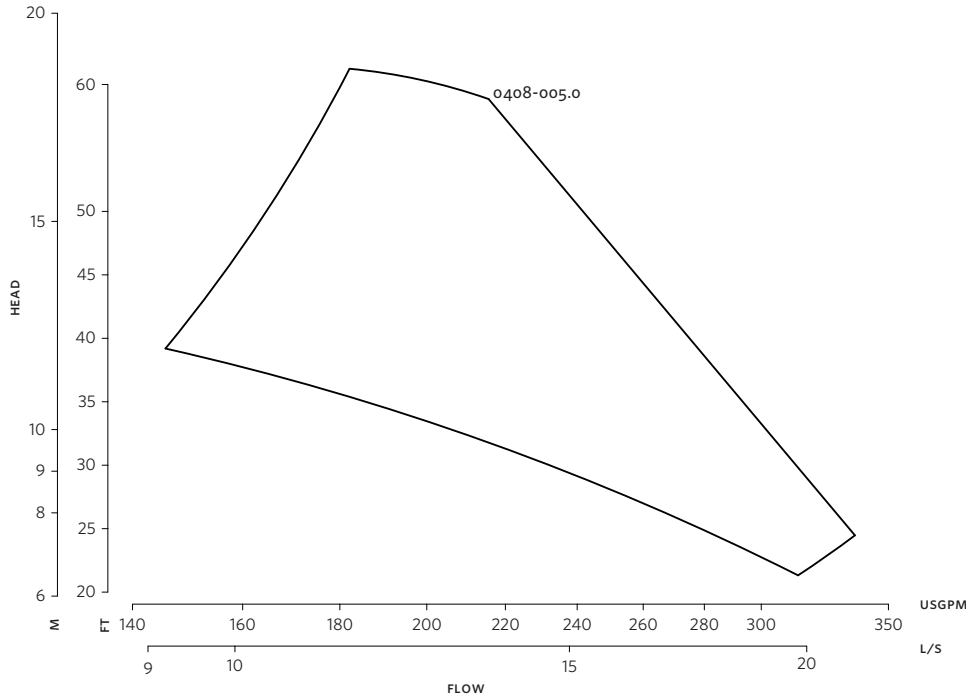
**Seal Type:** 2A **Stationary Seat:** Silicon carbide  
**Secondary Seal:** EPDM **Rotating Hardware:** Stainless steel  
**Spring:** Stainless steel

### CONTROLS DATA

**Sensorless Control:** Standard  
**Minimum system pressure to be maintained:** \_\_\_\_\_ ft (m)\*  
**Protocol (standard):**  Modbus RTU  BACnet™ MS/TP  
 Johnson® N2  Siemens® FLN  
**Protocol (optional):**  LonWorks®  
**Enclosure:**  Indoor - UL TYPE 12  
 Outdoor - UL TYPE 4X with Weather Shield  
 Outdoor - UL TYPE 4X less Weather Shield  
**Fused disconnect switch:**   
**Duty/standby pre-wired bridge:**   
**EMI/RFI control:** Integrated filter designed to meet EN61800-3  
**Harmonic suppression:** Dual dc-link reactors (Equivalent: 5% AC line reactor) Supporting IEEE 519-1992 requirements\*\*  
**Cooling:** Fan-cooled through back channel  
**Ambient temperature:** -10°C to +45°C up to 1000 meters above sea level (-14°F to +113°F, 3300 ft)  
**Analog I/O:** Two current or voltage inputs, one current output  
**Digital I/O:** Six programmable inputs (two can be configured as outputs)  
**Pulse inputs:** Two programmable  
**Relay outputs:** Two programmable  
**Communication port:** 1-RS485, 1-USB

\*If minimum maintained system pressure is not known: Default to 40% of design head  
 \*\*The Ivs 102 drive is a low harmonic drive via built-in dc line reactors. This does not guaranty performance to any system wide harmonic specification or the costs to meet a system wide specification. If supplied with the system electrical details, Armstrong will run a computer simulation of the system wide harmonics. If system harmonic levels are exceeded Armstrong can also recommend additional harmonic mitigation and the costs for such mitigation.

| FLUID TYPE     | ALL GLYCOLS > 30% WT CONC |                   | ALL OTHER NON-POTABLE FLUIDS |                        | POTABLE (DRINKING) WATER |                   |
|----------------|---------------------------|-------------------|------------------------------|------------------------|--------------------------|-------------------|
|                | up to 200°F / 93°C        | over 200°F / 93°C | up to 200°F / 93°C           | over 200°F / 93°C      | up to 200°F / 93°C       | over 200°F / 93°C |
| Temperature    | up to 200°F / 93°C        | over 200°F / 93°C | up to 200°F / 93°C           | over 200°F / 93°C      | up to 200°F / 93°C       | over 200°F / 93°C |
| Rotating Face  | Silicon carbide           |                   | Resin bonded carbon          | Antimony loaded carbon | Resin bonded carbon      |                   |
| Seat Elastomer | EPDM (L-cup)              | EPDM (O-ring)     | EPDM (L-cup)                 | EPDM (O-ring)          | EPDM (L-cup)             | EPDM (O-ring)     |
| Material Code  | SCsc L EPSS 2A            | SCsc O EPSS 2A    | C-sc L EPSS 2A               | ACsc O EPSS 2A         | C-sc L EPSS 2A           | C-sc O EPSS 2A    |

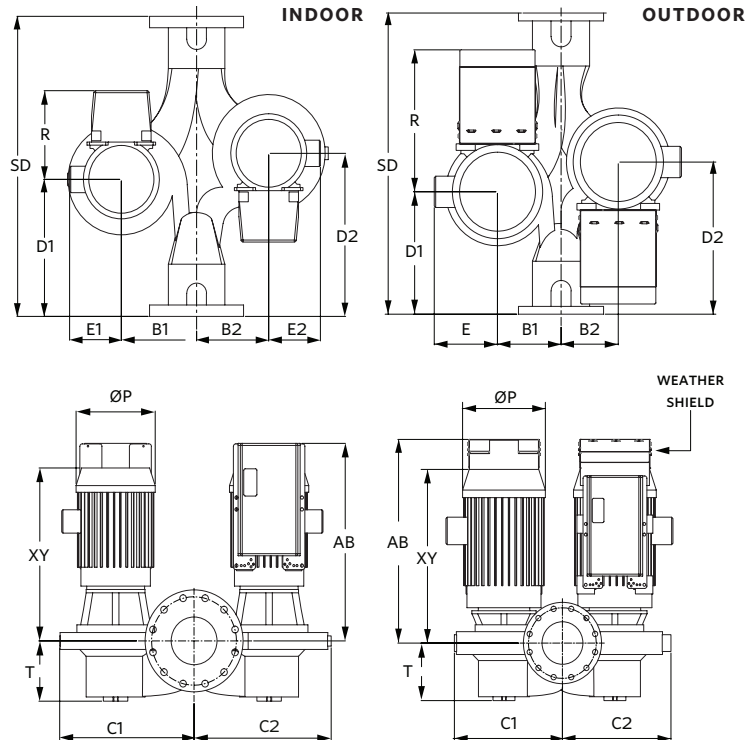


**DIMENSION DATA**

|                    | INDOOR<br>(UL TYPE 12/ODP) | OUTDOOR<br>(UL TYPE 4X/TEFC) |
|--------------------|----------------------------|------------------------------|
| <b>Frame size:</b> | 184                        | 184                          |
| <b>Size:</b>       | 4×4×8                      | 4×4×8                        |
| <b>HP:</b>         | 5                          | 5                            |
| <b>RPM:</b>        | 1800                       | 1800                         |
| <b>AB:</b>         | 13.65(347)                 | 19.50(495)                   |
| <b>B1:</b>         | 8.75(222)                  | 8.75(222)                    |
| <b>B2:</b>         | 8.75(222)                  | 8.75(222)                    |
| <b>C1:</b>         | 15.09(383)                 | 15.09(383)                   |
| <b>C2:</b>         | 15.63(397)                 | 15.63(397)                   |
| <b>D1:</b>         | 14.84(377)                 | 14.84(377)                   |
| <b>D2:</b>         | 14.84(377)                 | 14.84(377)                   |
| <b>E:</b>          | 7.50(191)                  | 7.50(191)                    |
| <b>P:</b>          | 10.38(264)                 | 9.50(241)                    |
| <b>F:</b>          | 24.50(622)                 | 30.46(774)                   |
| <b>SD:</b>         | 27.63(702)                 | 27.63(702)                   |
| <b>T:</b>          | 6.28(160)                  | 6.28(160)                    |
| <b>XY:</b>         | 19.26(489)                 | 20.01(508)                   |
| <b>Weight:</b>     | 544(246.8)                 | 620(281.2)                   |

Performance curves are for reference only.  
Confirm current performance data with Armstrong ACE Online selection software.

Dimensions - inch (mm)  
Weight - lbs (kg)



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