

## DESIGN ENVELOPE 4382 DUALARM | 0408-001.5 | SUBMITTAL

File No: 100.4632  
 Date: OCTOBER 30, 2015  
 Supersedes: NEW  
 Date: NEW

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

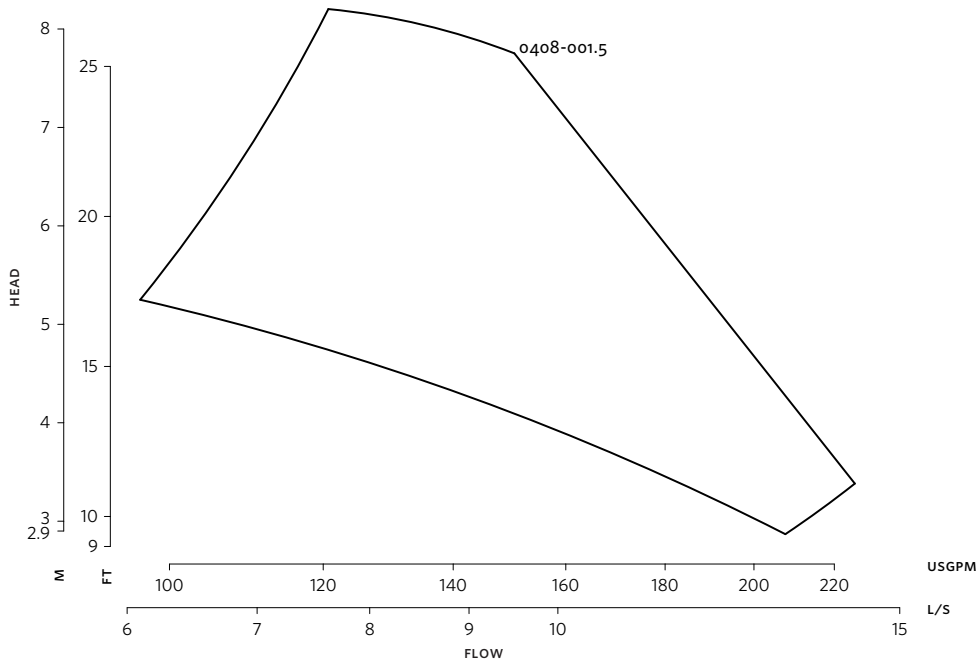
### CONTROLS DATA

**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	
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

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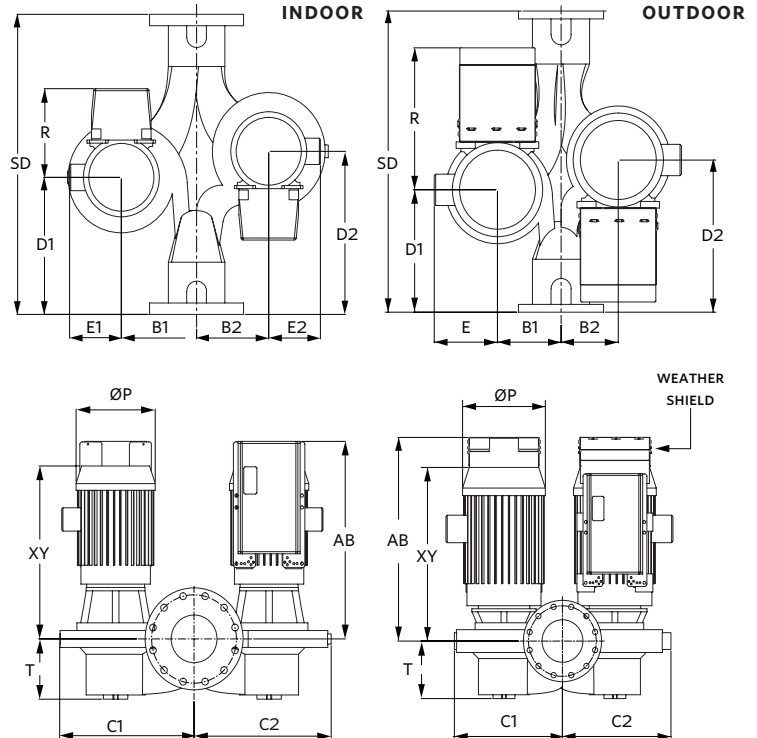


**DIMENSION DATA**

	INDOOR (UL TYPE 12/ODP)	OUTDOOR (UL TYPE 4X/TEFC)
<b>Frame size:</b>	182	182
<b>Size:</b>	4×4×8	4×4×8
<b>HP:</b>	1.5	1.5
<b>RPM:</b>	1500	1500
<b>AB:</b>	21.87(555)	21.87(555)
<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>F:</b>	13.66(347)	13.66(347)
<b>P:</b>	9.50(241)	9.50(241)
<b>SD:</b>	27.63(702)	27.63(702)
<b>T:</b>	6.28(160)	6.28(160)
<b>XY:</b>	20.01(508)	20.01(508)
<b>Weight:</b>	433(196.4)	455(206.2)

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

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



**TORONTO**  
+1 416 755 2291

**BUFFALO**  
+1 716 693 8813

**BIRMINGHAM**  
+44 (0) 8444 145 145

**MANCHESTER**  
+44 (0) 8444 145 145

**BANGALORE**  
+91 (0) 80 4906 3555

**SHANGHAI**  
+86 21 3756 6696