

## DESIGN ENVELOPE 4382 DUALARM | 0308-002.0 | SUBMITTAL

File No: 100.4626  
 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: 3" (75mm) Discharge: 3" (75mm)

**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

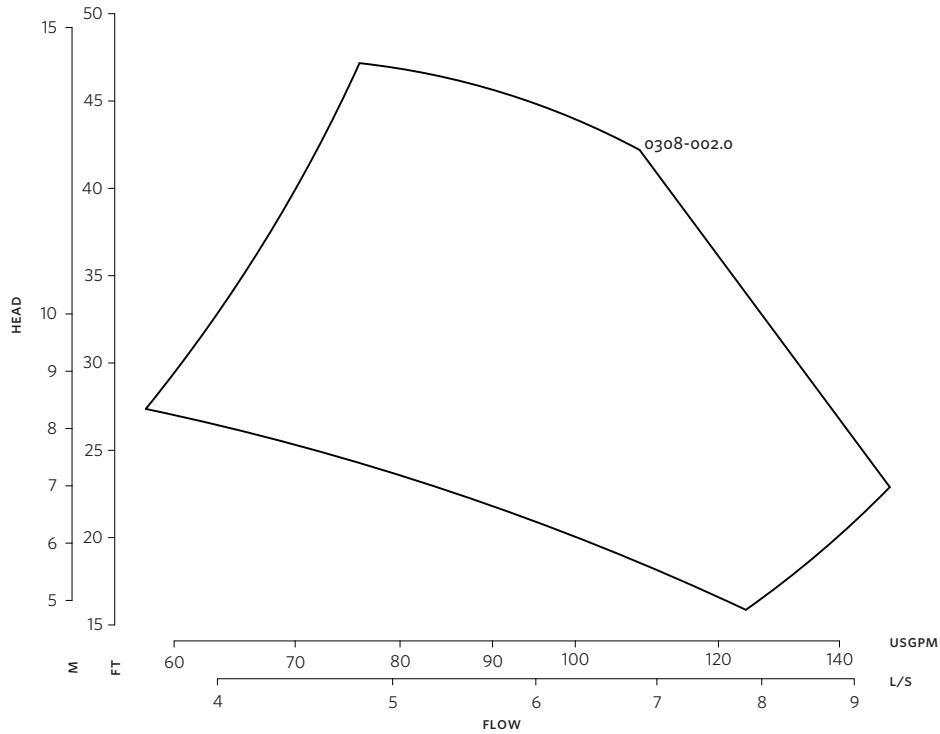
Seal Type: 2A Stationary Seat: Silicon carbide  
 Secondary Seal: EPDM Rotating Hardware: Stainless steel  
 Spring: Stainless steel

### 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

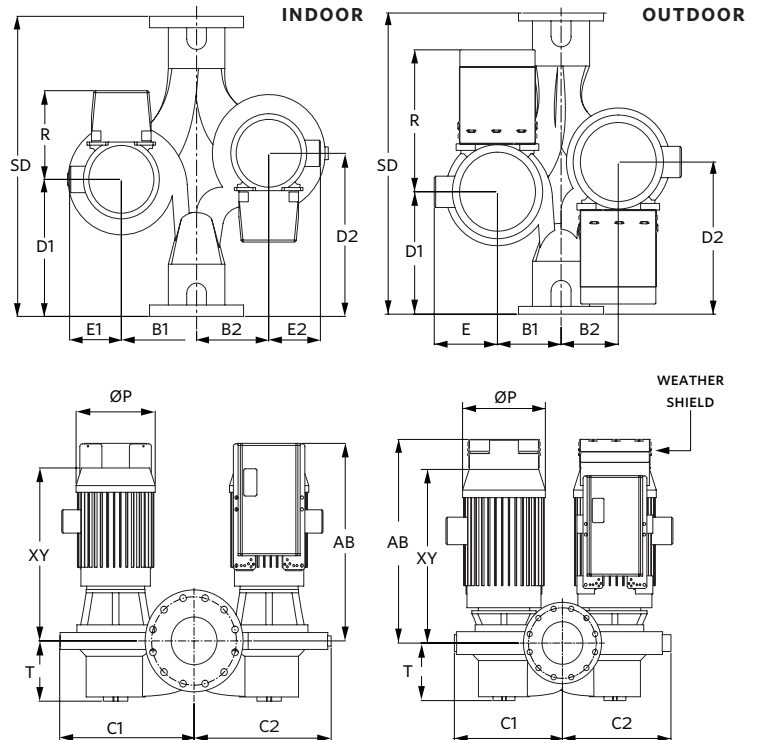


**DIMENSION DATA**

	INDOOR (UL TYPE 12/ODP)	OUTDOOR (UL TYPE 4X/TEFC)
<b>Frame size:</b>	145	145
<b>Size:</b>	3×3×8	3×3×8
<b>HP:</b>	2	2
<b>RPM:</b>	1800	1800
<b>AB:</b>	12.65(321)	18.50(470)
<b>B1:</b>	7.00(178)	7.00(178)
<b>B2:</b>	7.00(178)	7.00(178)
<b>C1:</b>	12.50(318)	12.50(318)
<b>C2:</b>	12.63(321)	12.63(321)
<b>D1:</b>	10.69(271)	10.69(271)
<b>D2:</b>	10.69(271)	10.69(271)
<b>E:</b>	6.13(156)	6.13(156)
<b>P:</b>	8.63(219)	7.83(199)
<b>F:</b>	24.18(614)	30.14(766)
<b>SD:</b>	19.06(484)	19.06(484)
<b>T:</b>	5.09(129)	5.09(129)
<b>XY:</b>	17.26(438)	17.01(432)
<b>Weight:</b>	450(204.1)	458(207.7)

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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