

## DESIGN ENVELOPE 4392 TWIN | 0208-005.0 | SUBMITTAL

File No: 100.4928  
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: 2" (50mm) Discharge: 2" (50mm)

**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)

- 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

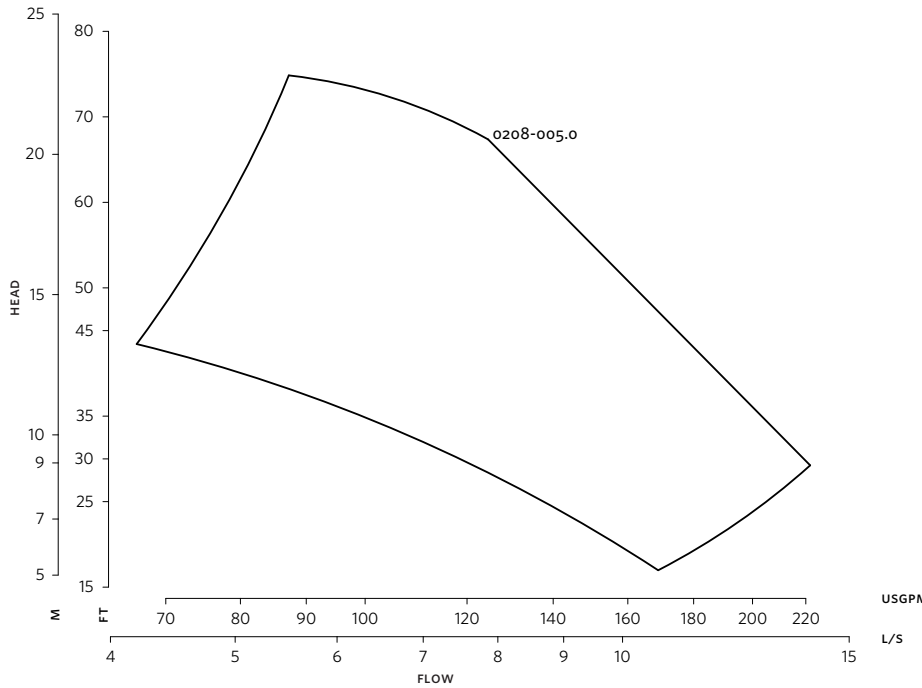
**Relay outputs:** Two programmable

**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
<b>Temperature</b>	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
<b>Rotating face</b>	Silicon carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

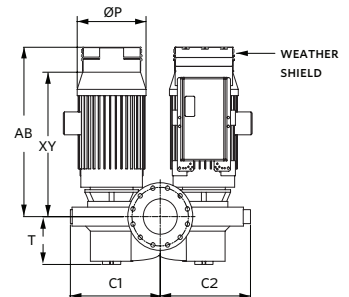
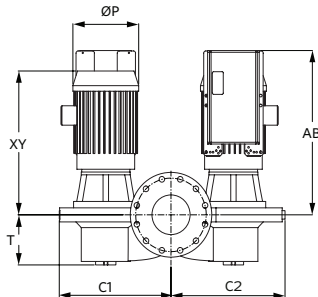
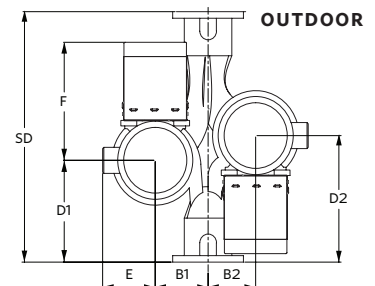
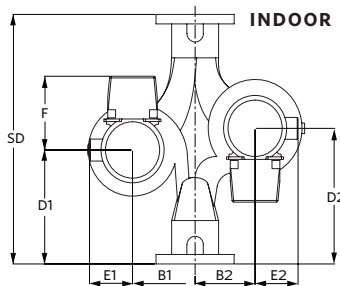


**DIMENSION DATA**

	INDOOR (UL TYPE 12/ODP)	OUTDOOR (UL TYPE 4X/TEFC)
<b>Frame size:</b>	182	184
<b>Size:</b>	2×2×8	2×2×8
<b>HP:</b>	5	5
<b>RPM:</b>	1800	1800
<b>AB:</b>	23.28(591)	23.28(591)
<b>B1:</b>	8.19(208)	8.19(208)
<b>B2:</b>	8.66(220)	8.66(220)
<b>C1:</b>	13.91(353)	13.91(353)
<b>C2:</b>	14.38(365)	14.38(365)
<b>D1:</b>	8.27(210)	8.27(210)
<b>D2:</b>	9.06(230)	9.06(230)
<b>E:</b>	7.50(191)	7.50(191)
<b>F:</b>	16.02(407)	16.02(407)
<b>P:</b>	9.50(241)	9.50(241)
<b>SD:</b>	15.75(400)	15.75(400)
<b>T:</b>	5.12(130)	5.12(130)
<b>XY:</b>	20.02(508)	20.02(508)
<b>Weight:</b>	547(248.1)	574(260.5)

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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