

## DESIGN ENVELOPE 4392 TWIN | 0408-005.0 | SUBMITTAL

File No: 100.4940  
Date: OCTOBER 30, 2015  
Supersedes: 100.4950  
Date: AUGUST 14, 2015

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)

- 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

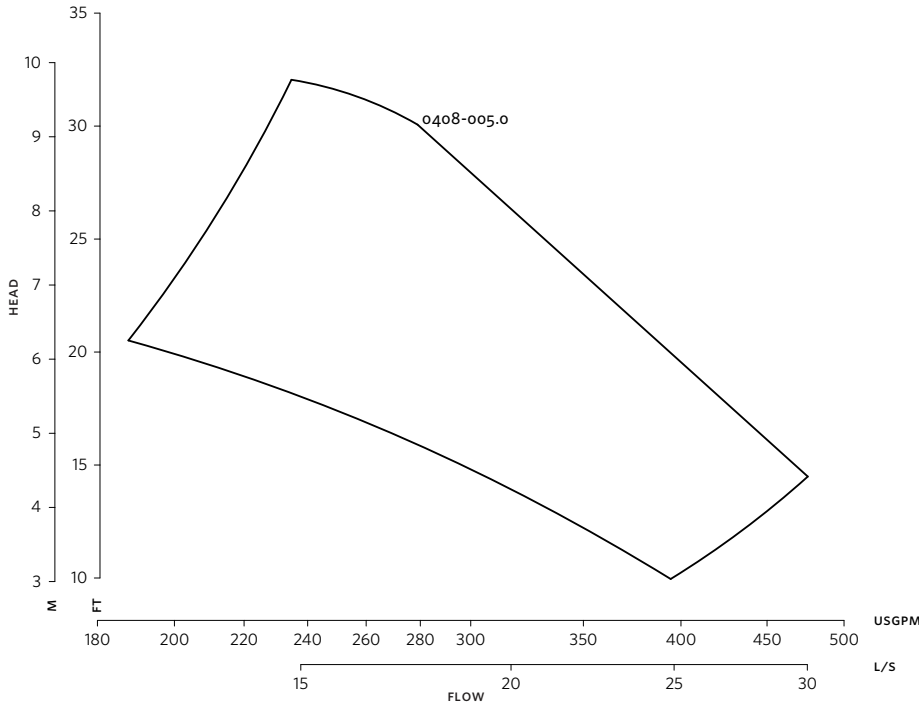
Relay outputs: Two programmable

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

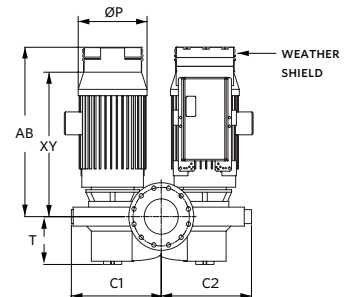
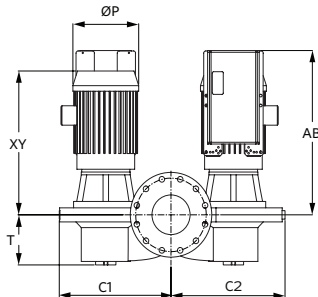
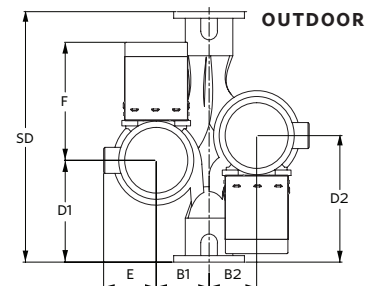
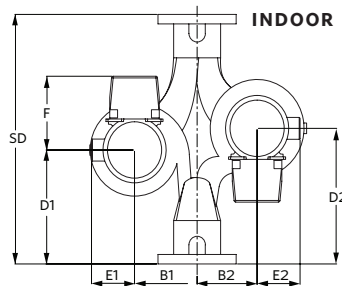


Performance curves are for reference only.  
Confirm current performance data with Armstrong ACE Online selection software.

**DIMENSION DATA**

	INDOOR (UL TYPE 12/ODP)	OUTDOOR (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>	1500	1500
<b>AB:</b>	21.30(541)	27.26(692)
<b>B1:</b>	11.42(290)	11.42(290)
<b>B2:</b>	11.42(290)	11.42(290)
<b>C1:</b>	18.85(479)	18.85(479)
<b>C2:</b>	18.94(481)	18.94(481)
<b>D1:</b>	11.18(284)	11.18(284)
<b>D2:</b>	11.18(284)	11.18(284)
<b>E:</b>	7.50(191)	7.50(191)
<b>F:</b>	13.65(347)	19.50(495)
<b>P:</b>	10.38(264)	9.50(241)
<b>SD:</b>	20.00(508)	20.00(508)
<b>T:</b>	7.99(203)	7.99(203)
<b>XY:</b>	19.41(493)	20.16(512)
<b>Weight:</b>	548(248.6)	624(283.0)

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



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