

## **DESIGN ENVELOPE 4392 TWIN**

**MECHANICAL SEAL DATA** 

Stationary seat: Silicone carbide

Rotating hardware: Stainless steel

Secondary seal: EPDM

Spring: Stainless steel

Seal type: 2A

# SINGLE PHASE | 0308-003.0 | SUBMITTAL

File No: 100.4986

Date: OCTOBER 27, 2014

Supersedes: NEW

Date: NEW

| Job:  |                  | Representative:   |  |  |  |  |
|---|------------------|---|--|--|--|--|
|   |                  | Order No:   | Date:  |  |  |  |
| Engineer:   |                  | Submitted by:   | Date:  |  |  |  |
| Contractor:   |                  | Approved by:  | Date:  |  |  |  |
| PUMP DESIGN DATA  |                  | CONTROLS DATA   |  |  |  |  |
| No. of pumps:USgpm (L/s) Liquid:  | Head:ft (m)      | Sonsorloss control  | <b>Volts:</b> 200-240VAC<br>Freq: 50/60Hz <b>Phase:</b> 1<br>Standard                          |  |  |  |
| Temperature:°F (°C) Suction: 3" (75mm)  |                  | to be maintained:   | ft (m)*  □ Modbus RTU □ BACnet™ MS/TP □ Johnson® N2 □ Siemens® FLN                             |  |  |  |
| MOTOR DESIGN DATA   |                  | Protocol (optional):   Enclosure:  Outdoor - UL TYPE 12 Outdoor - UL TYPE 4X with |  |  |  |  |
| HP: 3 RPM: 1450<br>Enclosure: Volts: 208  | Freq: 60 Hz      | Disconnect switch:  | Weather Shield  ☐ Outdoor - UL TYPE 4x less  Weather Shield                                    |  |  |  |
| Phase: 3 Efficiency: NEMA premium 12.12   |                  | Duty/standby  | Duty/standby pre-wired bridge: □   |  |  |  |
| MAXIMUM PUMP OPERA  | ATING CONDITIONS |   | 1-phase IVS102 units do not meet the EN61800-3 directive Dual Dc-link reactors (Equivalent: 5% |  |  |  |
| <b>ANSI 125</b><br>175 psig at 150°F (12 bars at 65°C)<br>140 psig at 250°F (10 bars at 121°C |                  | Cooling:  | AC line reactor) Supporting IEEE<br>519-1992 requirements**<br>Fan-cooled through back channel |  |  |  |
| • Tolerance of ±0.125" (±3 mm) s  |                  |   | -10°C to +45°C up to 1000 meters above<br>sea level (-14°F to +113°F, 3300 ft)                 |  |  |  |
| <ul> <li>For exact installation, data pleatertified dimensions</li> </ul>                     |                  |   | Two current or voltage inputs, one current output  |  |  |  |
|   |                  | :   | Six programmable inputs (two can be configured as outputs)                                     |  |  |  |
|   |                  | : Pulse inputs:   | Two programmable   |  |  |  |

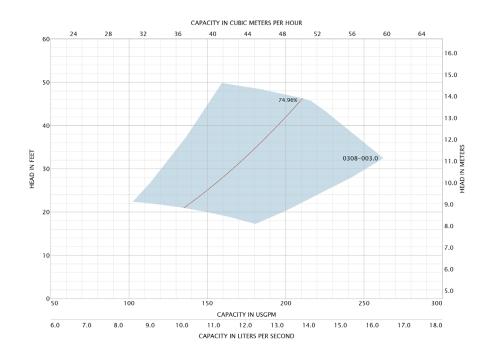
Relay outputs: Two programmable

Communication port: 1-RS485, 1-USB

| 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  | Silicone carbide          |                   | Resin bonded carbon          | Antimony loaded carbon | Resin bonded carbon      |                   |
| Seat elastomer | EPDM (L-cup)              | EPDM (o-ring)     | EPDM (L-cup)                 | EPDM (0-ring)          | EPDM (L-cup)             | EPDM (0-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    |

<sup>\*</sup>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.



Performance curves are for reference only.

 $Confirm\ current\ performance\ data\ with\ Armstrong\ {\tt ACE}\ Online\ selection\ software.$ 

#### **DIMENSION DATA**

|             | INDOOR           | OUTDOOR           |
|-------------|------------------|-------------------|
|             | (UL TYPE 12/ODP) | (UL TYPE 4X/TEFC) |
| Frame size: | 182              | 182               |
| Size:       | 3×3×8            | 3×3×8             |
| HP:         | 3                | 3                 |
| RPM:        | 1450             | 1450              |
| AB:         | 24.03(610)       | 29.31(745)        |
| B1:         | 9.84(250)        | 9.84(250)         |
| B2:         | 9.84(250)        | 9.84(250)         |
| C1:         | 16.22(412)       | 16.22(412)        |
| C2:         | 16.24(412)       | 16.24(412)        |
| D1:         | 7.87(200)        | 7.87(200)         |
| D2:         | 9.05(230)        | 9.05(230)         |
| E:          | 7.50(191)        | 7.50(191)         |
| F:          | 16.02(407)       | 19.50(495)        |
| P:          | 10.38(264)       | 9.50(241)         |
| SD:         | 15.75(400)       | 15.75(400)        |
| T:          | 6.22(158)        | 6.22(158)         |
| XY:         | 19.26(489)       | 20.01(508)        |
| Weight:     | 520(235.9)       | 600(272.2)        |

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

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