

## DESIGN ENVELOPE EXPRESS PUMP 4300 | 0306-001.5 | SUBMITTAL

**File No:** 100.3024  
**Date:** DECEMBER 24, 2015  
**Supersedes:** 100.3024  
**Date:** SEPTEMBER 22, 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: 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: 1.5 RPM: 1800 Frame size: 145 Enclosure: TEFC

Volts:  230V  460V  575V 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)

100 psig at 300°F (7 bars at 150°C)

#### ANSI 250

375 psig at 150°F (26 bars at 65°C)

260 psig at 300°F (21 bars at 150°C)

- Tolerance of ±0.125" (±3 mm) should be used
- For exact installation, data please write factory for certified dimensions

### MECHANICAL SEAL DESIGN DATA

See file no. 43.50 for standard mechanical seal details as indicated below

Armstrong seal reference number: c1 (a)

### CONTROLS DATA



**Sensorless Control:** Standard

**Minimum system pressure to be maintained:** \_\_\_\_\_ ft (m)\*

**Orientation:** L1

**Protocol:** BACnet™

**Enclosure:** Indoor - UL TYPE 12

**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)

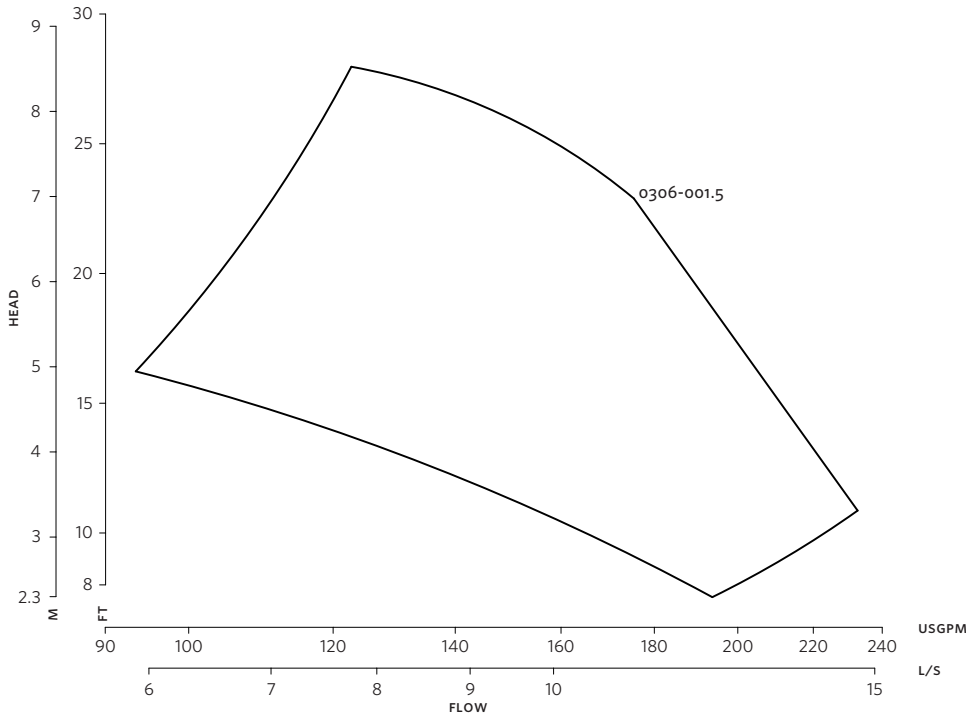
**Pulse inputs:** Two programmable

**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.



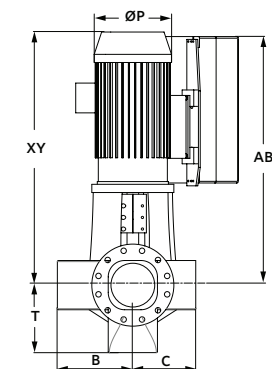
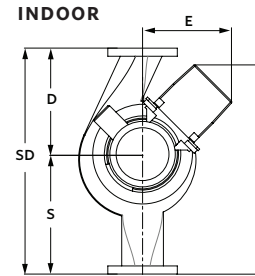
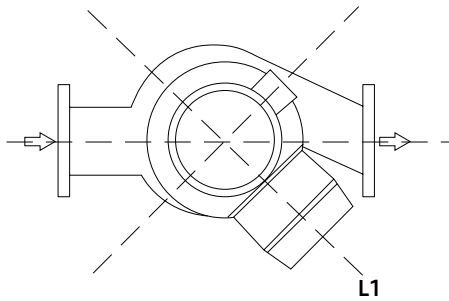
**DIMENSION DATA**

**INDOOR**  
(UL TYPE 12/TEFC)

- Frame size:** 145
- Size:** 3×3×6
- HP:** 1.5
- RPM:** 1800
- AB:** 24.92(633)
- B:** 5.80(147)
- C:** 4.65(118)
- D:** 8.25(210)
- E:** 11.85(301)
- P:** 8.63(219)
- S:** 9.75(248)
- SD:** 18.00(457)
- T:** 6.00(152)
- XY:** 22.03(560)
- Weight:** 219(99.3)

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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