ARMSTRONG

DESIGN ENVELOPE 4380 VIL

SINGLE PHASE | 0306–005.0 | SUBMITTAL

File No: 100.4375
Date: OCTOBER 27, 2014
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: 3" (75mm) Discharge: 3" (75mm)

MOTOR DESIGN DATA

HP: 5 RPM: 2900 Frame size: _____

Enclosure: _____Volts: 208 Freq: 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

300 psig at 150°F (20 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: Silicone carbide

Secondary seal: EPDM

Rotating hardware: Stainless steel

Spring: Stainless steel

CONTROLS DATA

Power supply: Volts: 200-240VAC
Freq: 50/60Hz Phase: 1

Sensorless control: Standard

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

Orientation: ☐ L1 (default) ☐ L2 ☐ L3 ☐ L4

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

Disconnect switch: ☐ Non-fused

EMI/RFI control: 1-phase IVS102 units do not meet the EN61800-3 directive

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

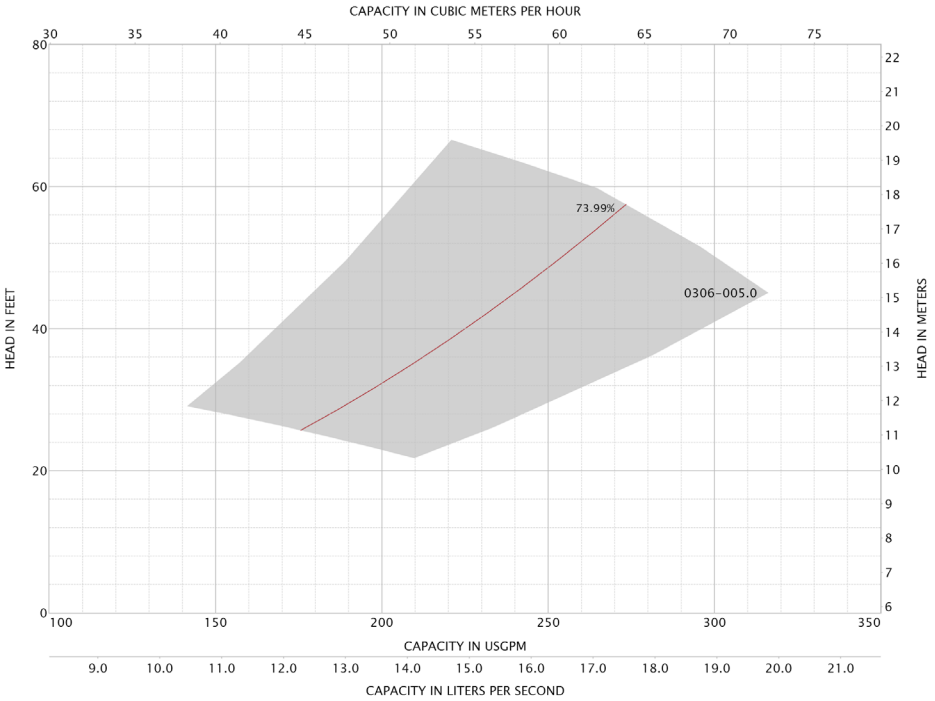
*If minimum maintained system pressure is not known: Default to 40% of design head

**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	Silicone 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

SUBMITTAL
0306-005.0

Design Envelope 4380 VIL
Single phase

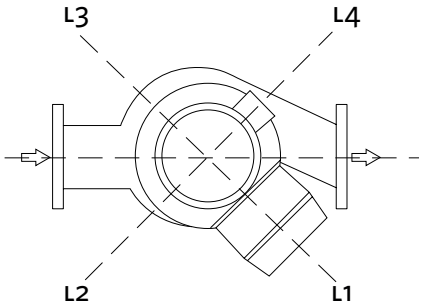


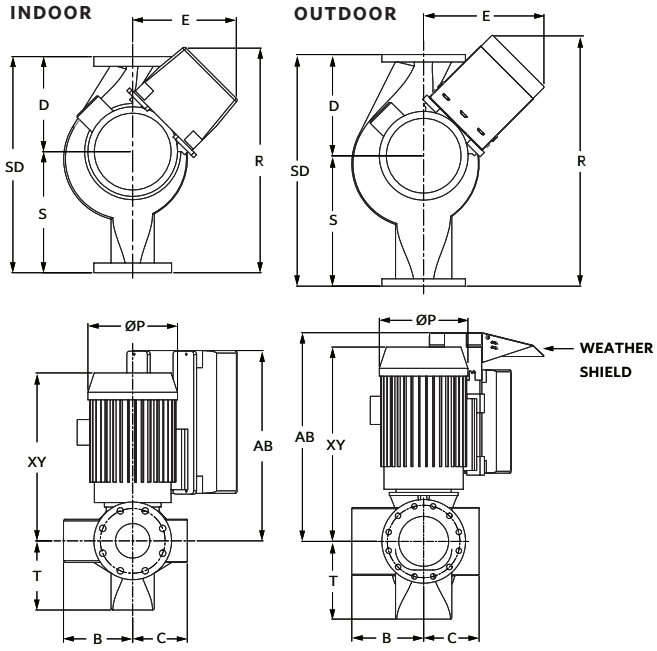
Performance curves are for reference only.
Confirm current performance data with Armstrong ACE Online selection software.

DIMENSION DATA

	INDOOR (UL TYPE 12/ODP)	OUTDOOR (UL TYPE 4X/TEFC)
Frame size:	182	184
Size:	3×3×6	3×3×6
HP:	5	5
RPM:	2900	2900
AB:	23.27(591)	29.30(744)
B:	5.80(147)	5.80(147)
C:	4.65(118)	4.65(118)
D:	8.25(210)	8.25(210)
E:	14.42(366)	17.91(455)
F:	14.42(366)	17.91(455)
P:	10.38(264)	9.50(241)
S:	9.75(248)	9.75(248)
SD:	18.00(457)	18.00(457)
T:	6.06(154)	6.06(154)
XY:	19.25(489)	20.00(508)
Weight:	228(103.4)	285(129.3)

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





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