ARMSTRONG

DESIGN ENVELOPE 4280 END SUCTION │

1506-001.0 │ SUBMITTAL

Job: _____

_____

Engineer: _____

Contractor: _____

Representative: _____

Order No: _____ Date: _____

Submitted by: _____ Date: _____

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) Flanged

Discharge: 1.5" (40mm) Flanged

OSHPD Seismic Certification OSP-0422-10

UL STD 778 & CSA STD C22.2 NO.108 certified

MOTOR DESIGN DATA

HP: 1   RPM: 1800   Frame size: 143JM

Enclosure: TEFC   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)

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
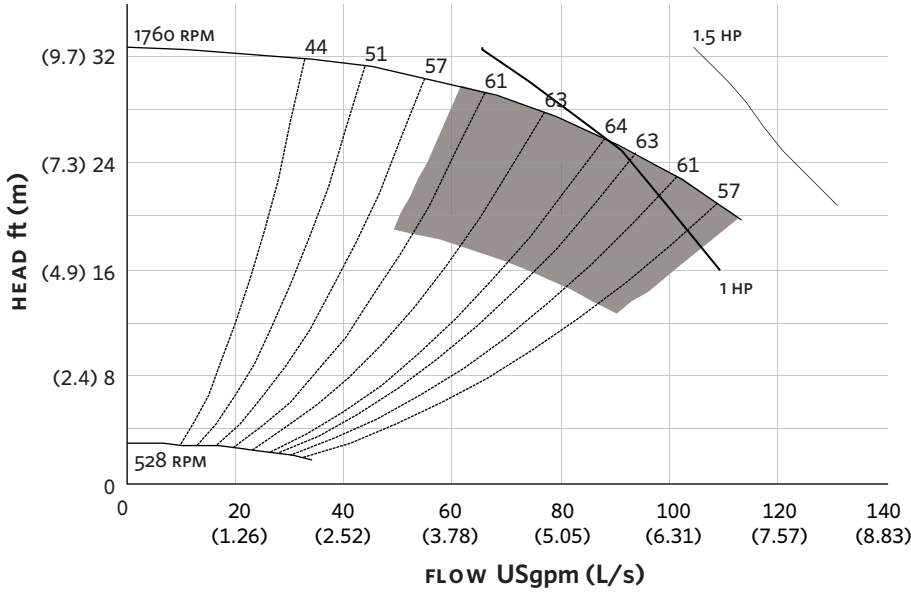
CONTROLS DATA

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

Fused disconnect switch: ☐

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	
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

EXTENDED SPEED

HEAD ft (m)

1760 RPM — 44 — 51 — 57 — 61 — 63 — 64 — 63 — 61 — 57 — 1.5 HP — 1 HP — 528 RPM

(9.7) 32, (7.3) 24, (4.9) 16, (2.4) 8, 0

FLOW USgpm (L/s)

0, 20 (1.26), 40 (2.52), 60 (3.78), 80 (5.05), 100 (6.31), 120 (7.57), 140 (8.83)

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

DIMENSION DATA

INDOOR
(UL TYPE 12/ODP)

Frame size:	143JM
Size:	3×1.5×6
HP:	1
RPM:	1800
A:	5.50 (140)
B:	5.91 (150)
C MAX:	19.69 (500)
D1:	5.25 (133)
D2:	3.50 (89)
2E:	7.09 (180)
F:	4.00 (102)
H:	0.40 (10)
HD:	5.71 (145)
HI:	22.32 (567)
HV:	12.28 (312)
N:	5.78 (147)
NaN1:	6.00 (152)
X:	6.50 (165)
Y:	4.00 (102)
Casing foot hole:	0.63 (16)
Weight:	219 (99.3)

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

INDOOR