ARMSTRONG

DESIGN ENVELOPE 4280 END SUCTION | SINGLE PHASE | 0308-002.0 | **SUBMITTAL**

File No: 100.3624
Date: APRIL 18, 2016
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: 4" (100mm) Flanged
Discharge: 3" (75mm) Flanged

OSHPD Seismic Certification OSP-0422-10
UL STD 778 & CSA STD C22.2 NO.108 certified

MOTOR DESIGN DATA

HP: 2 RPM: 1200 Frame size: 184JM
Enclosure: TEFC 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)*
Protocol (standard): ☐ Modbus RTU ☐ BACnet™ MS/TP ☐ Johnson® N2 ☐ Siemens® FLN
Protocol (optional): ☐ LonWorks®
Enclosure: ☐ Indoor – UL TYPE 12
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

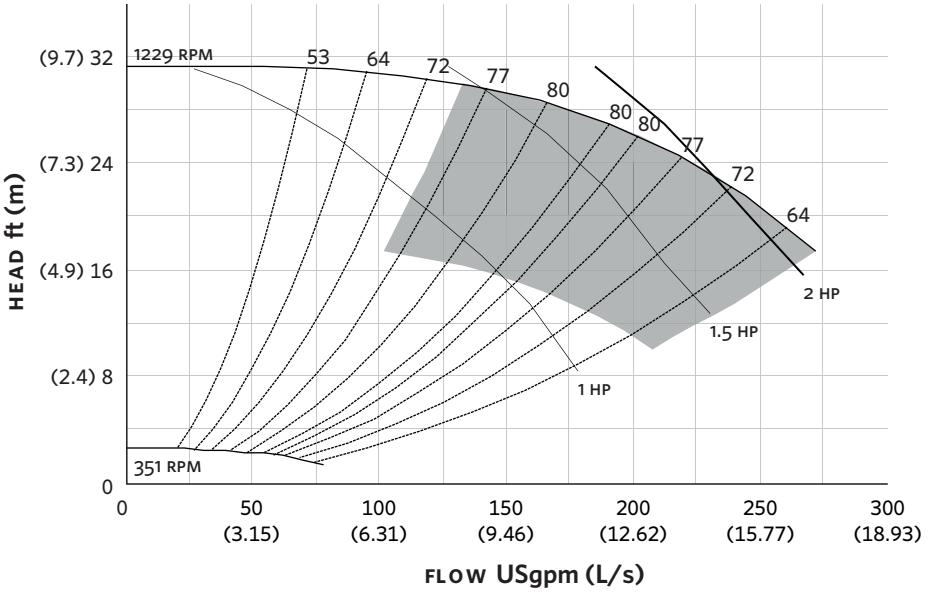
**The IVS 102 drive is a low harmonic drive via built-in DC line reactors. This does not guaranty performance to any system wide harmonic specification or the costs to meet a system wide specification. If supplied with the system electrical details, Armstrong will run a computer simulation of the system 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
0308-002.0

Design Envelope 4280 end suction
Single phase

EXTENDED SPEED



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

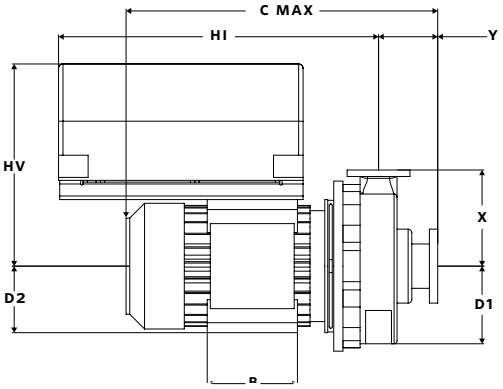
DIMENSION DATA

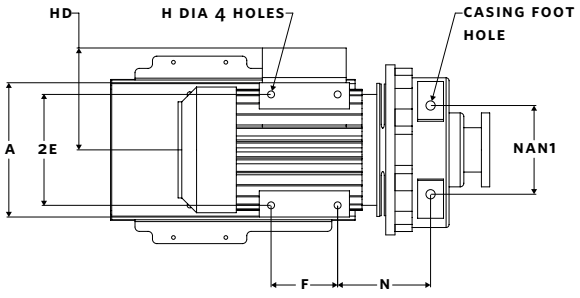
INDOOR
(UL TYPE 12/ODP)

Frame size:	184JM
Size:	4×3×8
HP:	2
RPM:	1200
A:	9.08 (231)
B:	7.09 (180)
C MAX:	21.09 (536)
D1:	6.63 (168)
D2:	4.50 (114)
2E:	7.50 (191)
F:	5.50 (140)
H:	0.47 (12)
HD:	6.89 (175)
HI:	24.13 (613)
HV:	16.23 (412)
N:	6.30 (160)
NAN1:	6.00 (152)
X:	11.00 (279)
Y:	4.00 (102)
Casing foot hole:	0.63 (16)
Weight:	325 (147.4)

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

INDOOR





TORONTO
+1 416 755 2291

BUFFALO
+1 716 693 8813

BIRMINGHAM
+44 (0) 8444 145 145

MANCHESTER
+44 (0) 8444 145 145

BANGALORE
+91 (0) 80 4906 3555

SHANGHAI
+86 21 3756 6696

SÃO PAULO
+55 11 4781 5500