

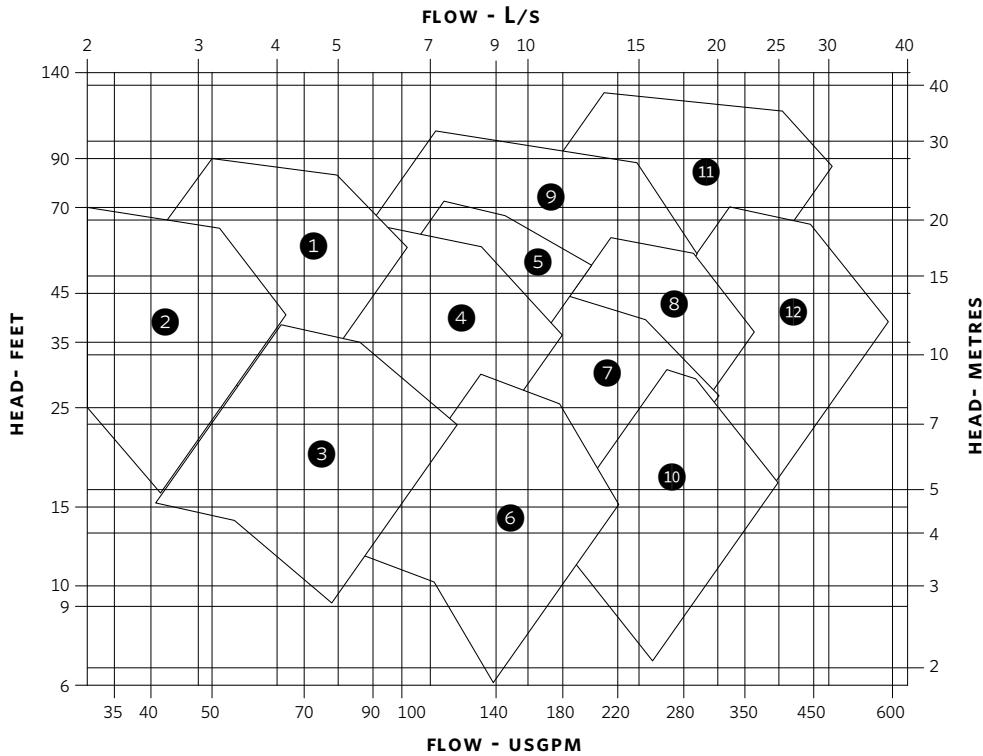
# Pump-In-a-Box Express

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## Technical data

**File No:** 43.792  
**Date:** DECEMBER 16, 2014  
**Supersedes:** 43.792  
**Date:** JANUARY 27, 2014

## PIB DESIGN ENVELOPE 4380 - 4300 COMPOSITE CURVES



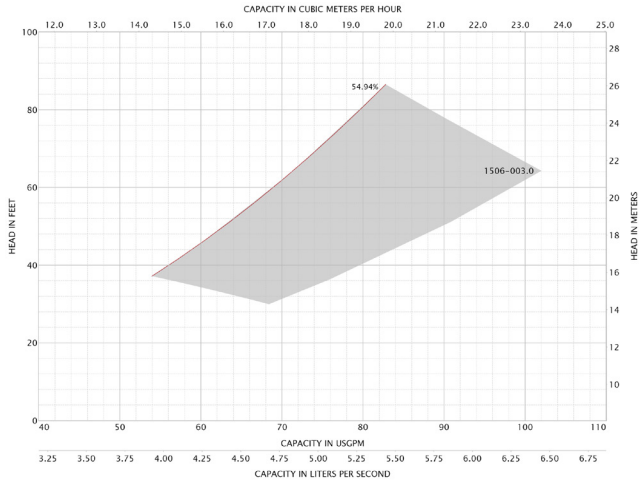
	DESIGN ENVELOPE MODEL	PART NUMBER			INLET & OUTLET ANSI 125	HP*
		208-230 VOLTS †	460 VOLTS	575 VOLTS		
①	4380 1506-003.0	20212UEGBNSXXXXX	20214UEGBNSXXXXX	20215UEGBNSXXXXX	1.5x1.5	① 3
②	4380 1508-001.5	22412UEGBNSXXXXX	22414UEGBNSXXXXX	22415UEGBNSXXXXX	1.5x1.5	1.5
③	4380 0206-001.5	21012UEGBNSXXXXX	21014UEGBNSXXXXX	21015UEGBNSXXXXX	2x2	1.5
④	4380 0208-003.0	22812UEGBNSXXXXX	22814UEGBNSXXXXX	22815UEGBNSXXXXX	2x2	3
⑤	4380 0208-005.0	22912UEGBNSXXXXX	22914UEGBNSXXXXX	22915UEGBNSXXXXX	2x2	5
⑥	4380 0306-001.5	21412UEGBNSXXXXX	21414UEGBNSXXXXX	21415UEGBNSXXXXX	3x3	1.5
⑦	4380 0308-003.0	23212UEGBNSXXXXX	23214UEGBNSXXXXX	23215UEGBNSXXXXX	3x3	3
⑧	4380 0308-005.0	23312UEGBNSXXXXX	23314UEGBNSXXXXX	23315UEGBNSXXXXX	3x3	5
⑨	4380 0310-007.5	24512UEGBNSXXXXX	24514UEGBNSXXXXX	24515UEGBNSXXXXX	3x3	7.5
⑩	4380 0406-003.0	21912UEGBNSXXXXX	21914UEGBNSXXXXX	21915UEGBNSXXXXX	4x4	3
⑪	4300 0308-015.0	04212UEGBNBXXXXX	04214UEGBNBXXXXX	04215UEGBNBXXXXX	3x3	① 15
⑫	4300 0406-010.0	51712UEGBNBXXXXX	51714UEGBNBXXXXX	51715UEGBNBXXXXX	4x4	① 10

**Note:**

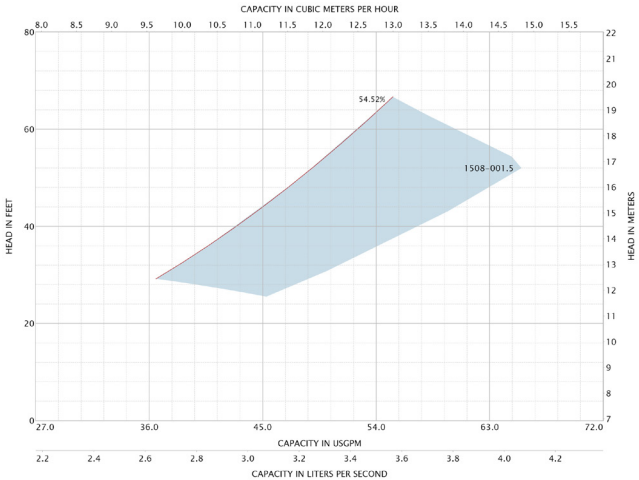
\* Motors are 3-ph 4-pole with TEFC enclosure and NEMA premium [12.12] efficiency. Units market 1 operate at 2-pole

† For 1-phase 230VAC input power, available to 7.5hp, change the 5th syllable of the part number (now 2) to A

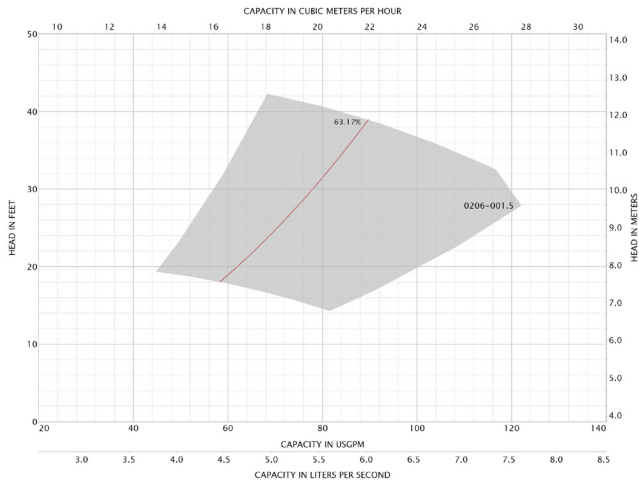
### 4380 - MODEL 1506-003.0



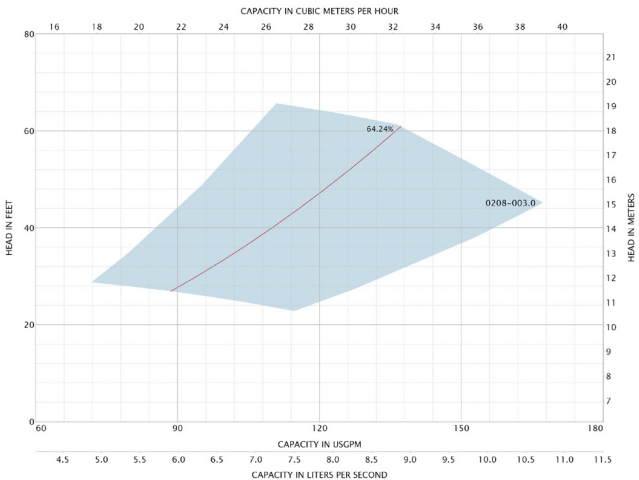
### 4380 - MODEL 1508-001.5



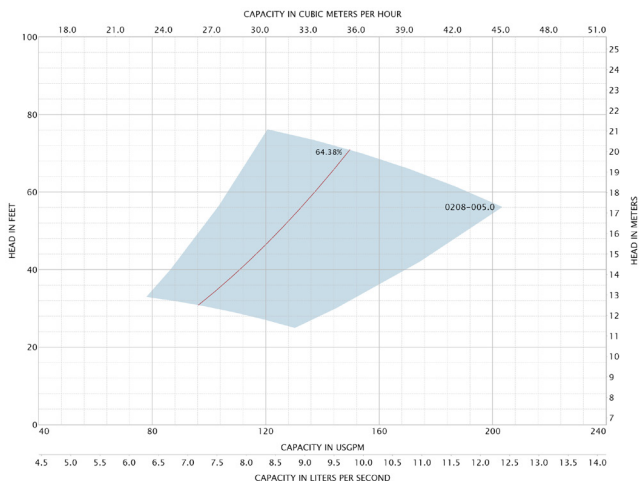
### 4380 - MODEL 0206-001.5



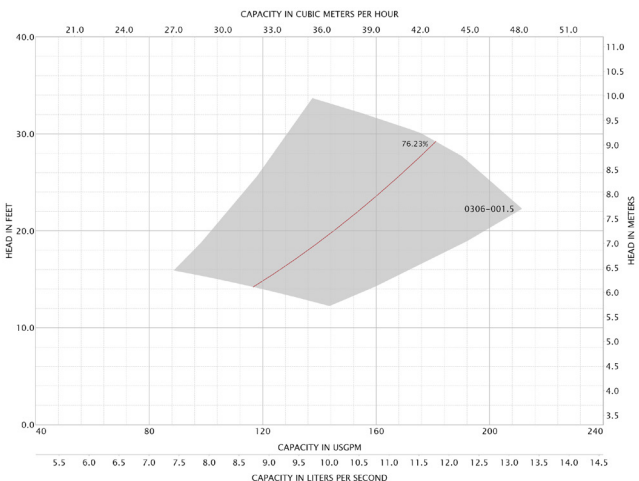
### 4380 - MODEL 0208-003.0



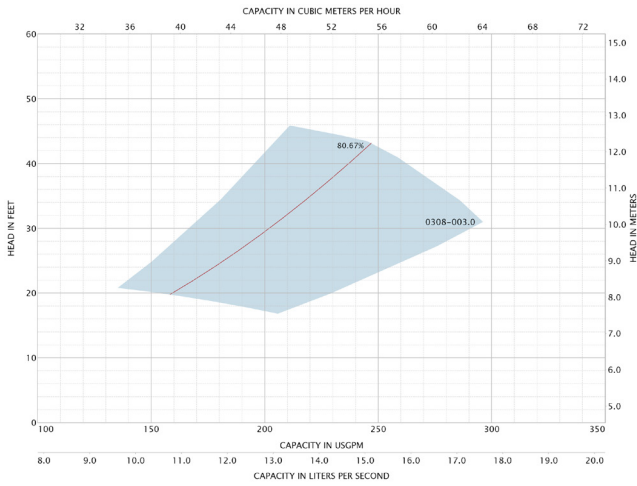
### 4380 - MODEL 0208-005.0



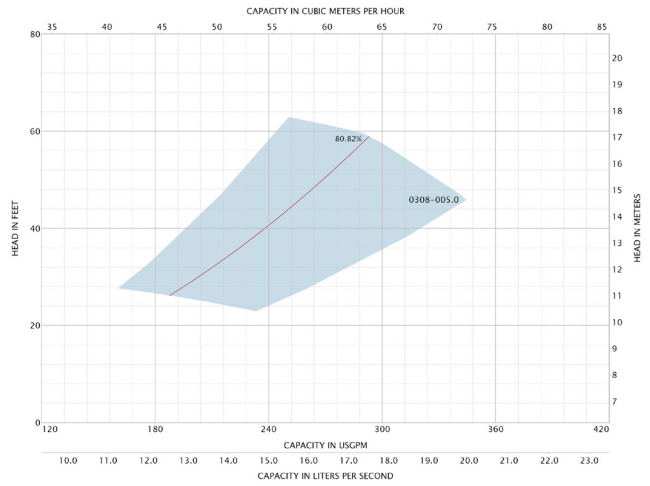
### 4380 - MODEL 0306-001.5



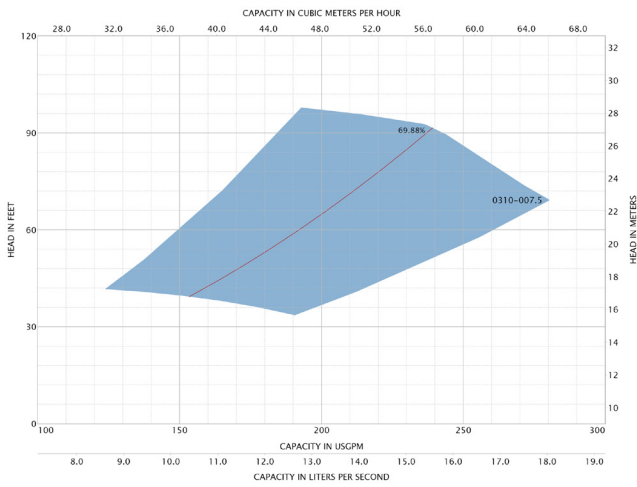
### 4380 - MODEL 0308-003.0



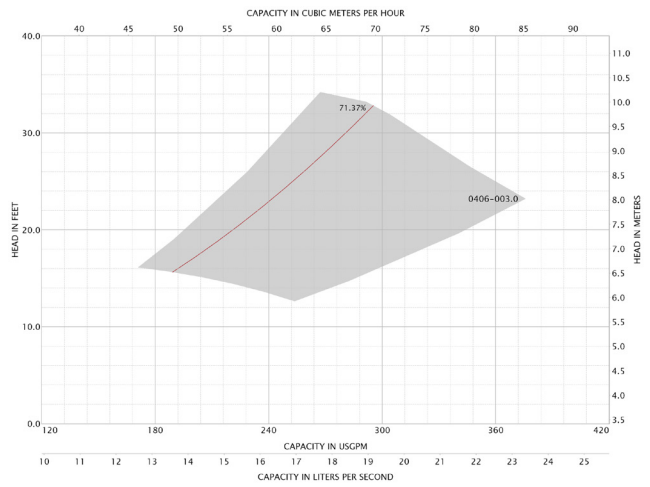
### 4380 - MODEL 0308-005.0



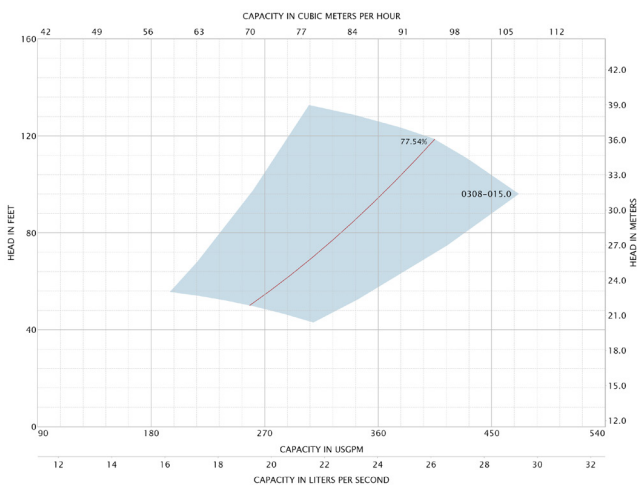
### 4380 - MODEL 0310-007.5



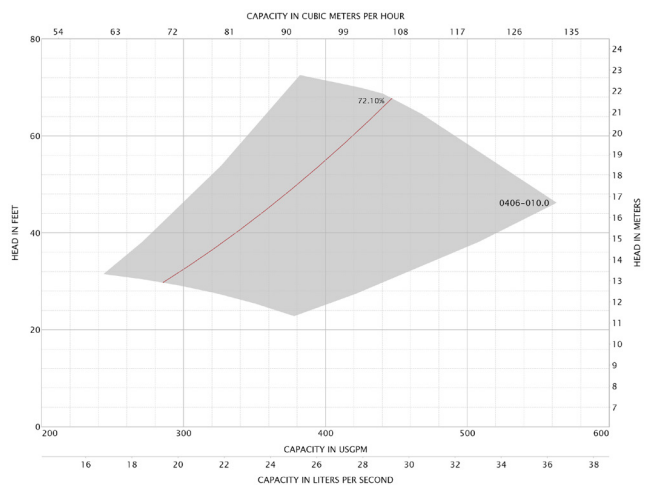
### 4380 - MODEL 0406-003.0

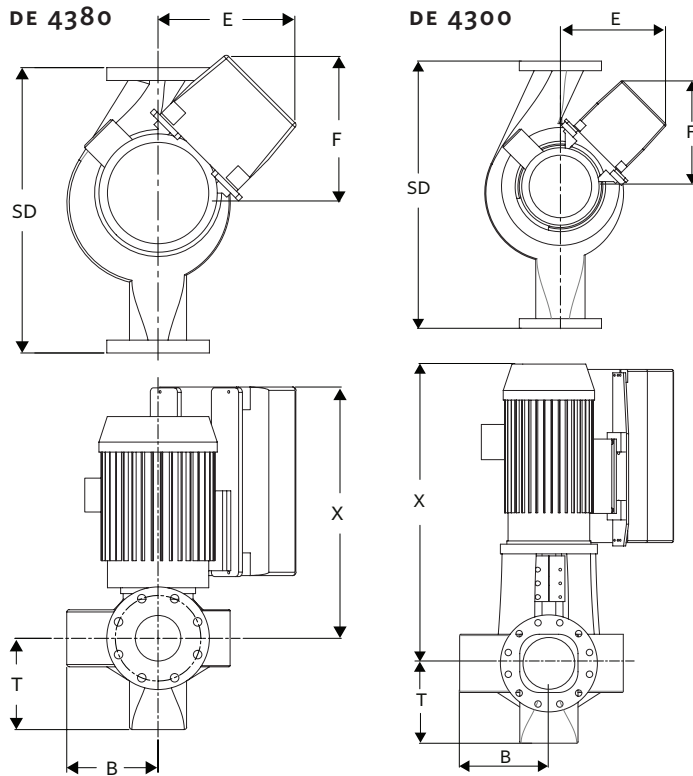


### 4300 - MODEL 0308-015.0



### 4300 - MODEL 0406-010.0





## DESIGN & APPLICATION

Armstrong Intelligent Variable Speed Sensorless, vertical in-line close coupled (4380) and split coupled (4300) pump series are suitable for heating, cooling and boosting applications - for water or light glycol (ethylene or propylene) up to 30% in chilled water applications.

## TECHNICAL FEATURES

- Operating temperature: up to 200°F / 93°C
- Max working pressure: 175 psig /12 bars at 150°F (140 psig /10 bars at 250°F)
- Motor power: 1.5 to 15 HP
- Power supply: 3 phase, 60Hz, 208-230v or 460v or 575v
- Motor efficiency: NEMA premium 12.12 with TEFC enclosure
- Controls: Integrated IVS 102 inverter drive, UL type 12 enclosure with BACnet control protocol
- Seal: Armstrong type 2A mechanical, inside, single spring (4380 models)
- Construction: BF with ANSI 125 flanged connections
- Impeller: Dynamically balanced bronze

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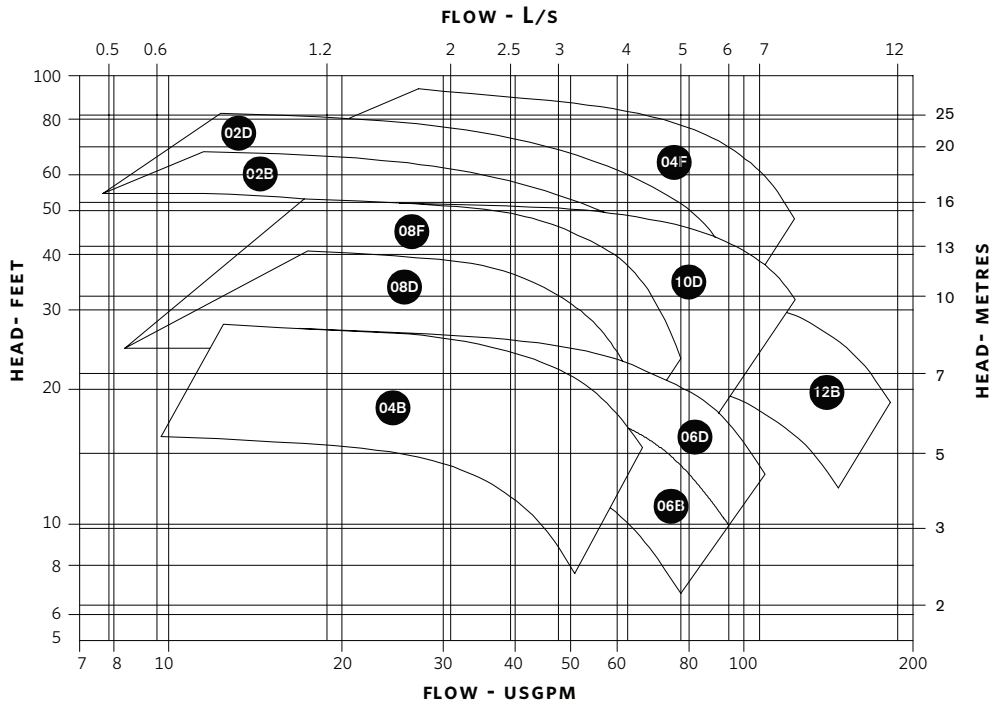
**3-PH DIMENSIONS AND WEIGHTS**

	MODEL	MOTOR DETAILS		B	E	F	T	SD	X	WEIGHT
		HP	FRAME							
①	4380 1506-003.0	3	182	3.86 (98)	12.75 (324)	12.75 (324)	4.25 (108)	14.25 (362)	21.83 (554)	202 (91.6)
②	4380 1508-001.5	1.5	145	5.80 (147)	12.04 (306)	12.04 (306)	4.59 (117)	16.00 (406)	22.16 (563)	198 (89.8)
③	4380 0206-001.5	1.5	145	4.63 (118)	12.04 (306)	12.04 (306)	4.88 (124)	15.00 (381)	22.15 (563)	187 (84.8)
④	4380 0208-003.0	3	182	5.80 (147)	12.75 (324)	12.75 (324)	5.09 (129)	18.00 (457)	21.87 (555)	239 (108.4)
⑤	4380 0208-005.0	5	184	5.80 (147)	12.75 (324)	12.75 (324)	5.09 (129)	18.00 (457)	21.87 (555)	244 (110.7)
⑥	4380 0306-001.5	1.5	145	5.80 (147)	12.04 (306)	12.04 (306)	6.06 (154)	18.00 (457)	22.15 (563)	203 (92.1)
⑦	4380 0308-003.0	3	182	6.75 (171)	12.75 (324)	12.75 (324)	6.31 (160)	22.00 (559)	21.87 (555)	265 (120.2)
⑧	4380 0308-005.0	5	184	6.75 (171)	12.75 (324)	12.75 (324)	6.31 (160)	22.00 (559)	21.87 (555)	270 (122.5)
⑨	4380 0310-007.5	7.5	213	7.16 (182)	12.80 (325)	16.44 (418)	5.40 (137)	21.00 (533)	27.18 (690)	368 (166.9)
⑩	4380 0406-003.0	3	182	6.88 (175)	12.75 (324)	12.75 (324)	7.75 (197)	22.00 (559)	22.11 (562)	265 (120.2)
⑪	4300 0308-015.0	15	213-5TC	6.75 (171)	15.79 (401)	15.79 (401)	6.31 (160)	22.00 (559)	34.10 (866)	431 (195.5)
⑫	4300 0406-010.0	10	213-5TC	6.88 (175)	13.28 (337)	13.28 (337)	7.75 (197)	22.00 (559)	29.41 (747)	331 (150.1)

**1-PH DIMENSIONS AND WEIGHTS**

	MODEL	MOTOR DETAILS		B	E	F	T	SD	X	WEIGHT
		HP	FRAME							
①	4380 1506-003.0	3	182	3.86 (98)	14.42 (366)	14.42 (366)	4.25 (108)	14.25 (362)	23.24 (590)	205 (93.0)
②	4380 1508-001.5	1.5	145	5.80 (147)	12.04 (306)	12.04 (306)	4.59 (117)	16.00 (406)	22.16 (563)	209 (94.8)
③	4380 0206-001.5	1.5	145	4.63 (118)	12.04 (306)	12.04 (306)	4.88 (124)	15.00 (381)	22.15 (563)	199 (90.3)
④	4380 0208-003.0	3	182	5.80 (147)	14.42 (366)	14.42 (366)	5.09 (129)	18.00 (457)	23.28 (591)	249 (112.9)
⑤	4380 0208-005.0	5	184	5.80 (147)	14.42 (366)	14.42 (366)	5.09 (129)	18.00 (457)	23.28 (591)	261 (118.4)
⑥	4380 0306-001.5	1.5	145	5.80 (147)	12.04 (306)	12.04 (306)	6.06 (154)	18.00 (457)	22.15 (563)	219 (99.3)
⑦	4380 0308-003.0	3	182	6.75 (171)	14.42 (366)	14.42 (366)	6.31 (160)	22.00 (559)	23.28 (591)	279 (126.6)
⑧	4380 0308-005.0	5	184	6.75 (171)	14.42 (366)	14.42 (366)	6.31 (160)	22.00 (559)	23.28 (591)	291 (132.0)
⑨	4380 0310-007.5	7.5	213	7.16 (182)	12.80 (325)	16.44 (418)	5.40 (137)	21.00 (533)	27.18 (690)	406 (184.2)
⑩	4380 0406-003.0	3	182	6.88 (175)	14.42 (366)	14.42 (366)	7.75 (197)	22.00 (559)	23.52 (597)	279 (126.6)

## PIB CONSTANT SPEED SERIES 4360

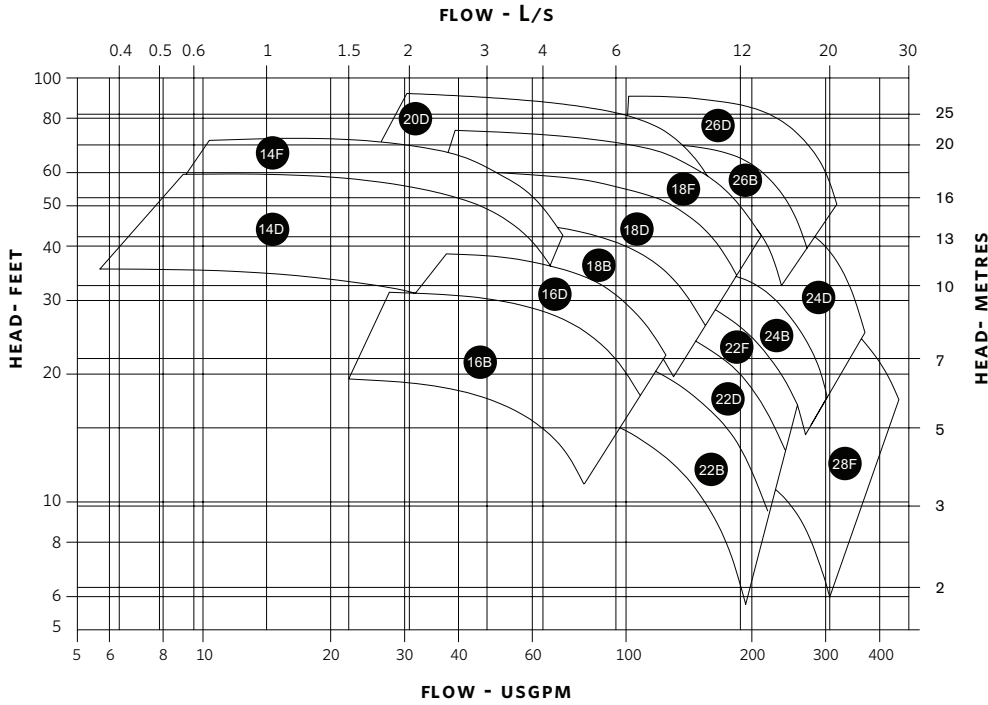


PERFORMANCE CURVE	MODEL	PART NUMBER		INLET & OUTLET (NPT)	HP
		208-230/460 VOLTS	575 VOLTS		
02B	4360B-1205T-1.5/2	4360B00AH-083	4360B00AH-068	1.25"×1.25"	① 1.5
02D	4360B-1205T-2.0/2	4360B00AJ-083	4360B00AJ-068	1.25"×1.25"	① 2
04B	4360B-1505T-0.5/4	4360B00BC-062 (115/230V only)		1.5"×1.5"	② 0.5
04F	4360B-1505T-3.0/2	4360B00BM-083	4360B00BM-083	1.5"×1.5"	① 3
06B	4360B-2205T-0.5/4	4360B00CC-062 (115/230V only)		2"×2"	② 0.5
06D	4360B-2205T-0.7/4	4360B00CD-068	4360B00CD-083	2"×2"	0.75
08D	4360D-1507T-1.0/4	4360D00AG-083	4360D00AG-068	1.5"×1.5"	1
08F	4360D-1507T-1.5/4	4360D00AI-083	4360D00AI-068	1.5"×1.5"	1.5
10D	4360D-2207T-2.0/4	4360D-2207T-2.0/4	4360D00BL-068	2"×2"	2
12B	4360D-3307T-1.5/4	4360D00CI-083	4360D00CI-068	3"×3"	1.5

**Note:** All motors are 3-phase 1800 RPM except:

- ① 3600 RPM
- ② 1-phase

**PIB CONSTANT SPEED SERIES 4380**



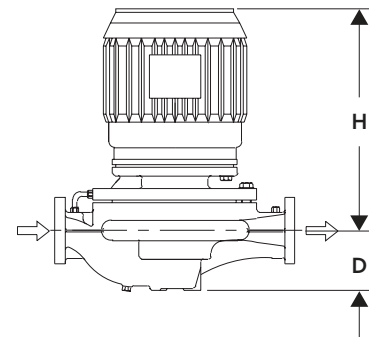
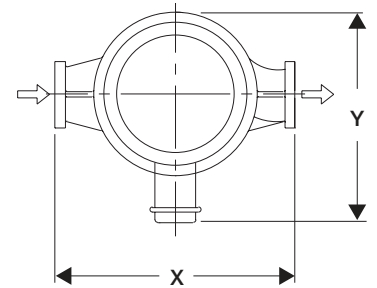
PERFORMANCE CURVE	MODEL	PART NUMBER		INLET & OUTLET ANSI 125	HP
		208-230/460 VOLTS	575 VOLTS		
14D	4380-1508F-1.5/4	4380008AI-083	4380008AI-068	1.5"×1.5"	1.5
14F	4380-1508F-2.0/4	4380008AL-083	4380008AL-068	1.5"×1.5"	2
16B	4380-2206F-1.0/4	4380006BG-083	4380006BG-068	2"×2"	1
16D	4380-2206F-1.5/4	4380006BI-083	4380006BI-068	2"×2"	1.5
18B	4380-2208F-2.0/4	4380008BL-083	4380008BL-068	2"×2"	2
18D	4380-2208F-3.0/4	4380008BO-083	4380008BO-068	2"×2"	3
18F	4380-2208F-5.0/4	4380008BR-083	4380008BR-068	2"×2"	5
20D	4380-2210F-5.0/4	4380010AR-083	4380010AR-068	2"×2"	5
22B	4380-3306F-1.0/4	4380006CG-083	4380006CG-068	3"×3"	1
22D	4380-3306F-1.5/4	4380006CI-083	4380006CI-068	3"×3"	1.5
22F	4380-3306F-2.0/4	4380006CL-083	4380006CL-068	3"×3"	2
24B	4380-3308F-3.0/4	4380008CO-083	4380008CO-068	3"×3"	3
24D	4380-3308F-5.0/4	4380008CR-083	4380008CR-068	3"×3"	5
26B	4380-3310F-5.0/4	4380010BR-083	4380010BR-068	3"×3"	5
26D	4380-3310F-7.5/4	4380010BV-083	4380010BV-068	3"×3"	7.5
28F	4380-4406F-3.0/4	4380006DO-083	4380006DO-068	4"×4"	3



**DIMENSIONS**

**PIB 4360**

MODEL	DIMENSIONS - inches (mm)				WEIGHT lbs (kg)
	X	Y	H	D	
4360B-1205T-1.5/2	11.50 (292)	8.75 (222)	12.75 (324)	3.56 (90)	42 (19.0)
4360B-1205T-2.0/2	11.50 (292)	8.75 (222)	13.13 (334)	3.56 (90)	47 (21.3)
4360B-1505T-0.5/4	11.63 (295)	8.75 (222)	12.75 (324)	3.56 (90)	43 (19.5)
4360B-1505T-3.0/2	11.63 (295)	8.75 (222)	13.13 (334)	5.20 (132)	58 (26.3)
4360B-2205T-0.5/4	11.75 (298)	8.88 (226)	12.75 (324)	3.50 (89)	49 (22.2)
4360B-2205T-0.7/4	11.75 (298)	8.88 (226)	12.75 (324)	3.50 (89)	51 (23.1)
4360D-1507T-1.0/4	13.50 (343)	10.75 (273)	13.75 (349)	3.25 (83)	110 (49.9)
4360D-1507T-1.5/4	13.50 (343)	10.75 (273)	14.75 (375)	3.25 (83)	115 (52.2)
4360D-2207T-2.0/4	14.00 (356)	11.13 (283)	14.75 (375)	3.50 (89)	120 (54.4)
4360D-3307T-1.5/4	18.00 (457)	13.13 (334)	14.81 (376)	4.50 (114)	130 (59.0)



**PIB 4380**

MODEL	DIMENSIONS - inches (mm)				WEIGHT lbs (kg)
	X	Y	H	D	
4380-1508F-1.5/4	16.00 (406)	11.75 (298)	15.75 (400)	5.75 (146)	156 (70.8)
4380-1508F-2.0/4	16.00 (406)	11.75 (298)	15.75 (400)	5.75 (146)	156 (70.8)
4380-2206F-1.0/4	15.00 (381)	10.63 (270)	14.75 (375)	4.88 (124)	140 (63.5)
4380-2206F-1.5/4	15.00 (381)	10.63 (270)	15.75 (400)	4.88 (124)	145 (65.8)
4380-2208F-2.0/4	18.00 (457)	11.75 (298)	15.75 (400)	5.13 (130)	172 (78.0)
4380-2208F-3.0/4	18.00 (457)	12.75 (324)	20.13 (511)	5.13 (130)	187 (84.8)
4380-2208F-5.0/4	18.00 (457)	12.75 (324)	20.13 (511)	5.13 (130)	212 (96.2)
4380-2210F-5.0/4	19.00 (483)	13.75 (349)	20.13 (511)	5.38 (137)	245 (111.1)
4380-3306F-1.0/4	18.00 (457)	11.88 (302)	14.75 (375)	6.00 (152)	156 (70.8)
4380-3306F-1.5/4	18.00 (457)	11.88 (302)	6.00 (152)	6.00 (152)	161 (73.0)
4380-3306F-2.0/4	18.00 (457)	11.88 (302)	15.75 (400)	6.00 (152)	161 (73.0)
4380-3308F-3.0/4	22.00 (559)	13.88 (253)	20.13 (511)	6.38 (162)	213 (96.6)
4380-3308F-5.0/4	22.00 (559)	13.88 (253)	20.13 (511)	6.38 (162)	238 (108.0)
4380-3310F-5.0/4	21.00 (533)	14.25 (362)	20.13 (511)	6.25 (159)	282 (128.0)
4380-3310F-7.5/4	21.00 (533)	16.63 (422)	25.63 (651)	6.25 (159)	331 (150.1)
4380-4406F-3.0/4	22.00 (559)	13.88 (353)	20.38 (518)	7.75 (197)	213 (96.6)

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## TYPICAL SPECIFICATIONS

**Pump type:** Vertical In-Line

**Max. working pressure:** 175 psi @ 140°F

**Max. working temperature:** 250°F (121°C)  
225°F (107°C) (4360 only)

**End connections:** ANSI 125 flanges or NPT with Companion flanges (4360 only)

**Primary seal:** Armstrong type 2A Mechanical Inside single spring

**Max. flow:** 450 USgpm (28.4 L/s)

**Max. head:** 120 ft (36 m)

**Motor enclosure:** Open Drip Proof (ODP) (4360B only)  
Totally Enclosed Fan Cooled (TEFC)

**Motor efficiency:** Standard (4360B)  
Energy Efficient 12.11 (4360D/4380)

**Motor frames:** JM/JP/56C

## MATERIALS OF CONSTRUCTION

**Casing:** Cast Iron

**Impeller:** Bronze

**Casing gasket:** Fiber

**Adaptor bracket:** Cast iron

**Motor shaft:** Carbon steel

**PiB 4360B:** Stainless steel

**Stub shaft:** 56c motors only

**PiB 4360D/4380:** Stainless steel

**Stub shaft:** 56c motors only

**Shaft sleeve:** Stainless steel (PiB 4360D & PiB 4380 only)

**Water slinger:** Neoprene (PiB 4360D/4380 only)

**Rotating seal face:** Resin bonded carbon

**Stationary seal face:** Silicon carbide

**Secondary seal:** Buna-N (PiB 4360B) EPDM

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