

## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 1.5 × 1 × 6 | SUBMITTAL

File No: 42.54  
Date: SEPTEMBER 10 2012  
Supersedes: 42.54  
Date: DECEMBER 15, 2010

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: 1.5" (38mm) Flanged  
 Discharge: 1" (25mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

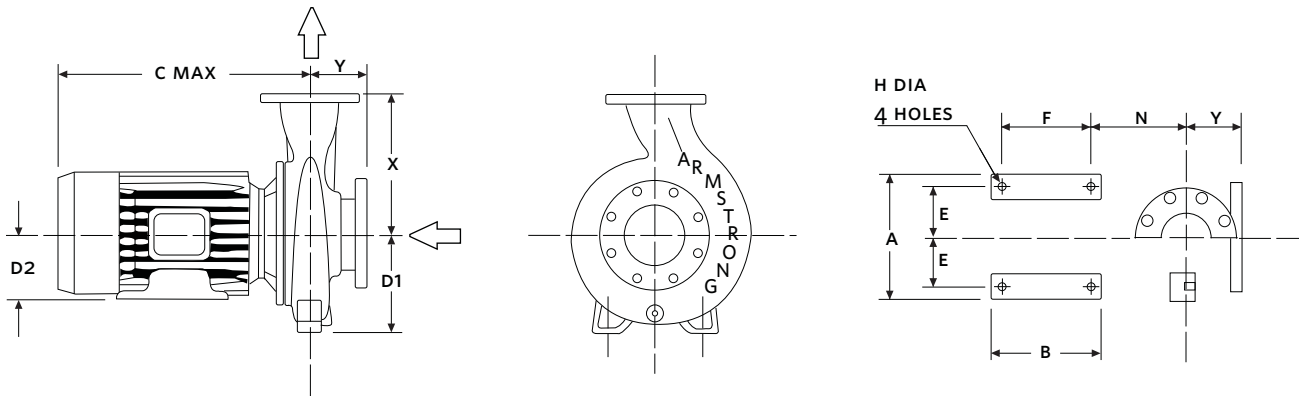
FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Temperature</b>	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

MOTOR FRAME	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
					ODP	TEFC							ODP	TEFC
143JM	1.5	1	7.00 (178)	6.50 (165)	13.18 (335)	13.18 (335)	5.25 (133)	3.50 (89)	2.75 (70)	4.00 (102)	0.34 (9)	6.12 (155)	74 (33.6)	79 (35.9)
145JM	2 & 3	—	7.00 (178)	6.50 (165)	13.18 (335)	13.18 (335)	5.25 (133)	3.50 (89)	2.75 (70)	4.00 (102)	0.34 (9)	6.12 (155)	84 (38.1)	104 (47.2)
184JM	5 & 7.5	—	7.00 (178)	6.50 (165)	13.18 (335)	13.18 (335)	5.25 (133)	3.50 (89)	2.75 (70)	5.00 (127)	0.41 (10)	6.12 (155)	119 (54.0)	144 (65.4)

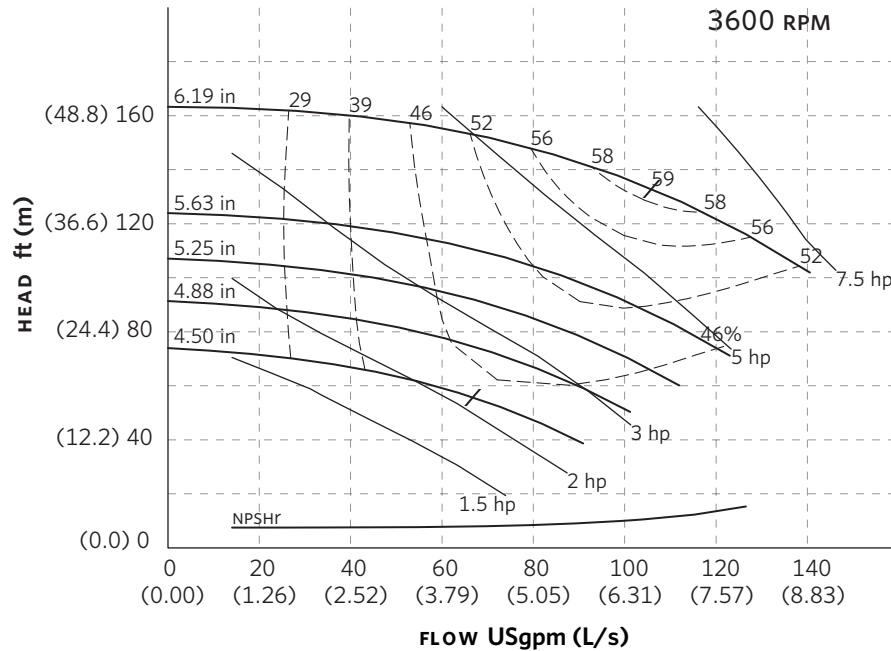
**PUMP DIMENSIONS**  
inches (mm)

X	Y
6.50 (165)	4.00 (102)

\*Assembly weight combines pump and motor.



## SERIES 4280 PERFORMANCE CURVES



**Curve number**  
PT16-2-0-3600

**Series**  
4030  
4280

**Size**  
1.5 x 1 x 6

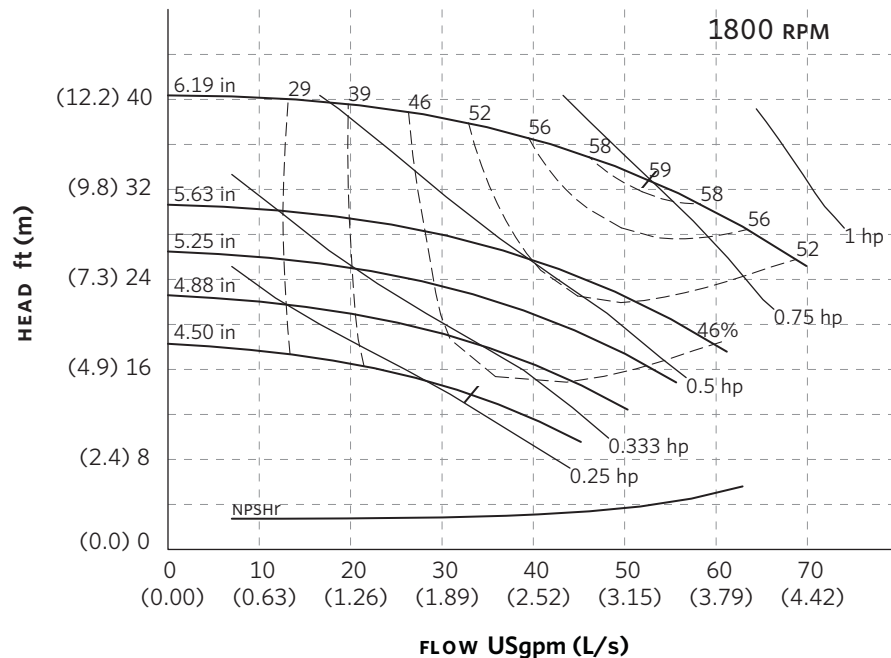
**RPM**  
3600

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 FR 143 MIN.

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT16-2-0-1800

**Series**  
4030  
4280

**Size**  
1.5 x 1 x 6

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 FR 56 MIN.  
4280 FR 143 MIN.

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 1.5 × 1 × 8 | SUBMITTAL

File No: 42.59  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.59  
Date: DECEMBER 15, 2010

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: 1.5" (38mm) Flanged  
 Discharge: 1" (25mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

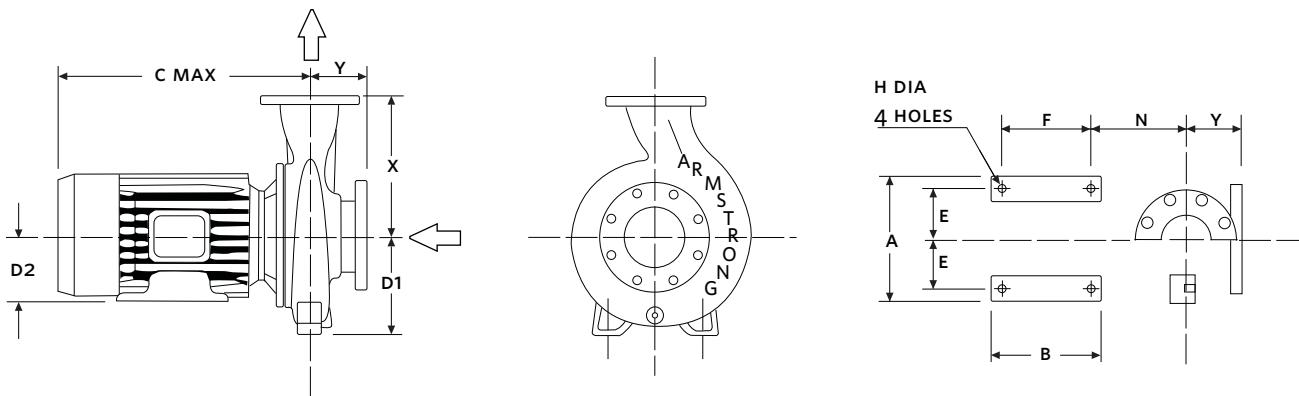
MOTOR	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
					ODP	TEFC							ODP	TEFC
143JM	—	1	7.00 (178)	5.00 (127)	13.00 (330)	15.00 (381)	5.25 (133)	3.50 (89)	2.75 (70)	4.00 (102)	0.35 (9)	6.63 (168)	94 (42.7)	104 (47.2)
145JM	—	1.5 & 2	7.00 (178)	6.00 (152)	14.00 (356)	16.00 (406)	5.25 (133)	3.50 (89)	2.75 (70)	5.00 (127)	0.35 (9)	6.63 (168)	99 (44.9)	104 (47.2)
182JM	—	3	9.00 (229)	5.75 (146)	15.00 (381)	17.00 (432)	5.25 (133)	4.50 (114)	3.75 (95)	4.50 (114)	0.41 (10)	7.38 (187)	114 (51.8)	129 (58.6)
184JM	5 & 7.5	—	9.00 (229)	6.75 (172)	16.00 (406)	18.00 (457)	5.25 (133)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	7.38 (187)	139 (63.1)	164 (74.5)
213JP	10	—	10.50 (267)	7.00 (178)	21.00 (533)	23.00 (584)	5.25 (133)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	174 (79.0)	189 (85.8)
215JP	15	—	10.50 (267)	8.50 (216)	23.00 (584)	25.00 (635)	5.25 (133)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	204 (92.6)	214 (97.2)
254JM	20	—	11.25 (286)	11.50 (292)	23.26 (591)	57.52 (699)	5.25 (133)	6.25 (159)	5.00 (127)	8.25 (210)	0.41 (10)	9.73 (247)	224 (101.7)	289 (131.2)

**PUMP DIMENSIONS**

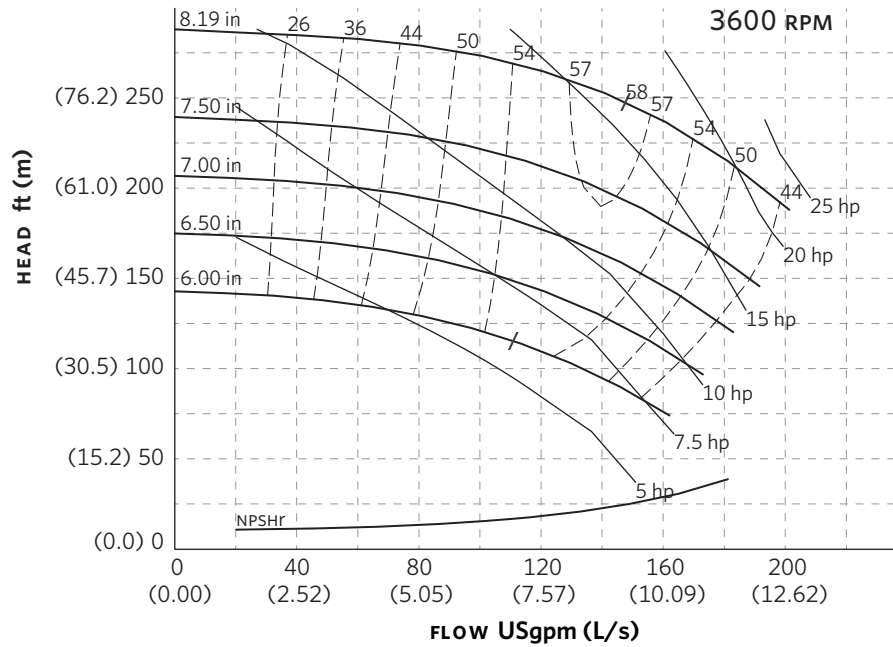
inches (mm)

X	Y
6.50 (165)	4.00 (102)

\*Assembly weight combines pump and motor.



## SERIES 4280 PERFORMANCE CURVES



**Curve number**  
PT18-2-0-3600

**Series**  
4030  
4280

**Size**  
1.5 x 1 x 8

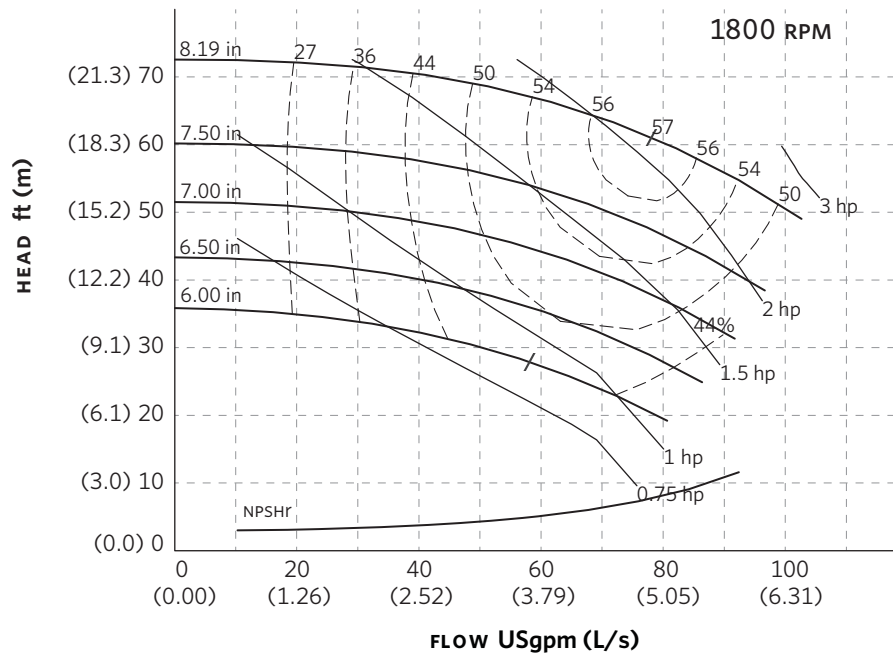
**RPM**  
3600

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT17-2-0-1800

**Series**  
4030  
4280

**Size**  
1.5 x 1 x 8

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 2 × 1 × 10 | SUBMITTAL

File No: 42.66  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.66  
Date: DECEMBER 15, 2010

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: 2" (50mm) Flanged\*\*  
 Discharge: 1" (25mm) Flanged  
 \*\*Suction connection on ANSI 250 units will be Lugged.

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

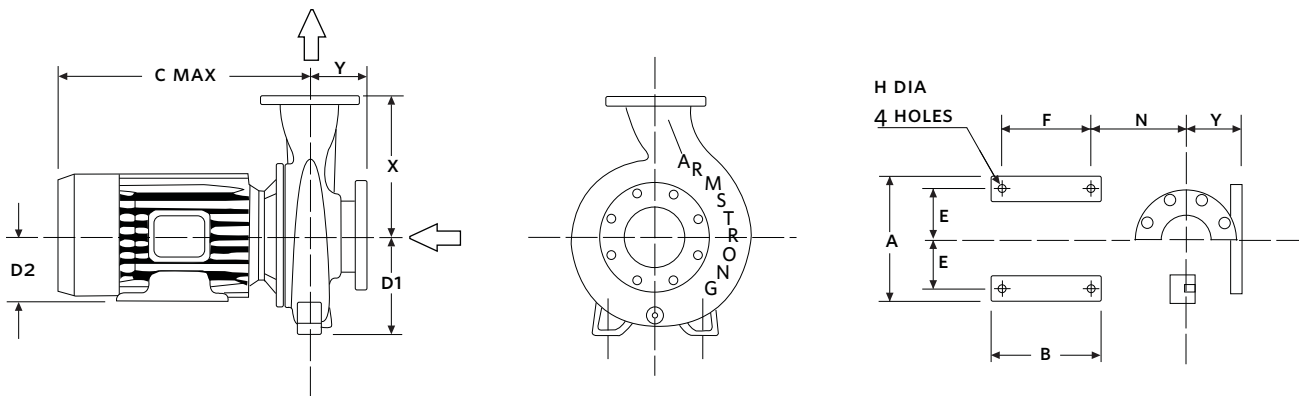
FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Temperature</b>	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

MOTOR	HP @ RPM (ODP & TEFC)			MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME						ODP	TEFC							ODP	TEFC
145JM	—	1.5 & 2	1	7.00 (178)	6.00 (152)	14.00 (356)	16.00 (406)	6.63 (168)	3.50 (89)	2.75 (70)	5.00 (127)	0.35 (9)	6.63 (168)	139 (63.1)	144 (65.4)
182JM	—	3	1.5	9.00 (229)	5.75 (146)	15.00 (381)	17.00 (432)	6.63 (168)	4.50 (114)	3.75 (95)	4.50 (114)	0.41 (10)	7.38 (187)	170 (77.2)	172 (78.1)
184JM	—	5	—	9.00 (229)	6.75 (172)	16.00 (406)	18.00 (457)	6.63 (168)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	7.38 (187)	174 (79.0)	179 (81.3)
213JP	10	—	—	10.50 (267)	7.00 (178)	21.00 (533)	23.00 (584)	6.63 (168)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	214 (97.2)	229 (104.0)
215JP	15	—	—	10.50 (267)	8.50 (216)	23.00 (584)	25.00 (635)	6.63 (168)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	244 (110.8)	254 (115.3)
254JM	20	—	—	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	6.63 (168)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	264 (119.9)	329 (149.4)
256JM	25	—	—	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	6.63 (168)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	299 (135.7)	364 (165.3)
284JM	30	—	—	13.88 (353)	12.25 (311)	27.00 (686)	29.00 (737)	6.63 (168)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.63 (321)	334 (151.6)	404 (183.4)
286JM	40	—	—	13.88 (353)	13.75 (349)	29.00 (737)	30.00 (762)	6.63 (168)	7.00 (178)	5.50 (140)	11.00 (279)	0.53 (13)	12.63 (321)	424 (192.5)	514 (233.4)

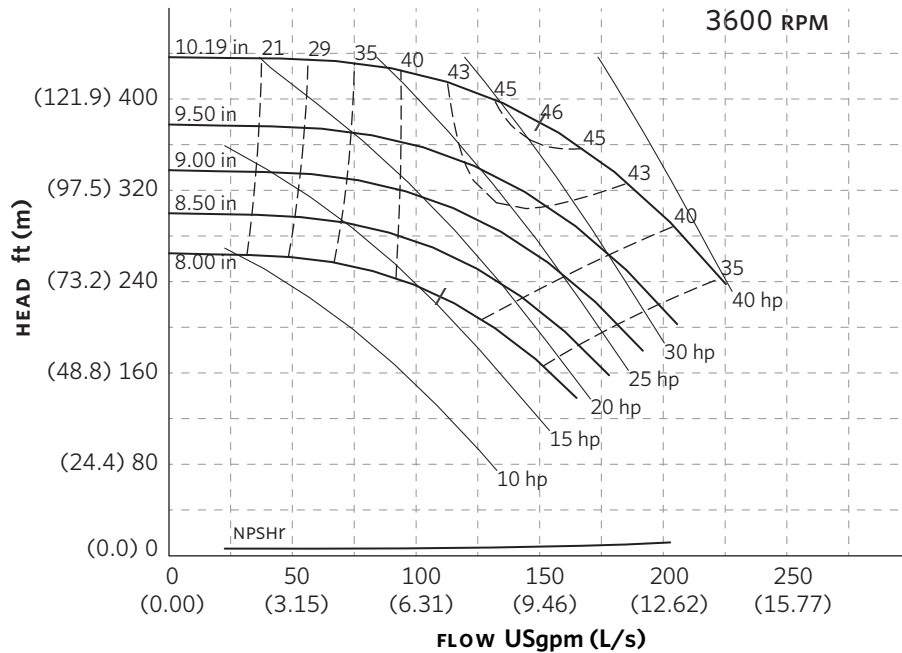
**PUMP DIMENSIONS**  
inches (mm)

X	Y
8.50 (216)	4.00 (102)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT34-3-0-3600

**Series**  
4030  
4280

**Size**  
2 × 1 × 10

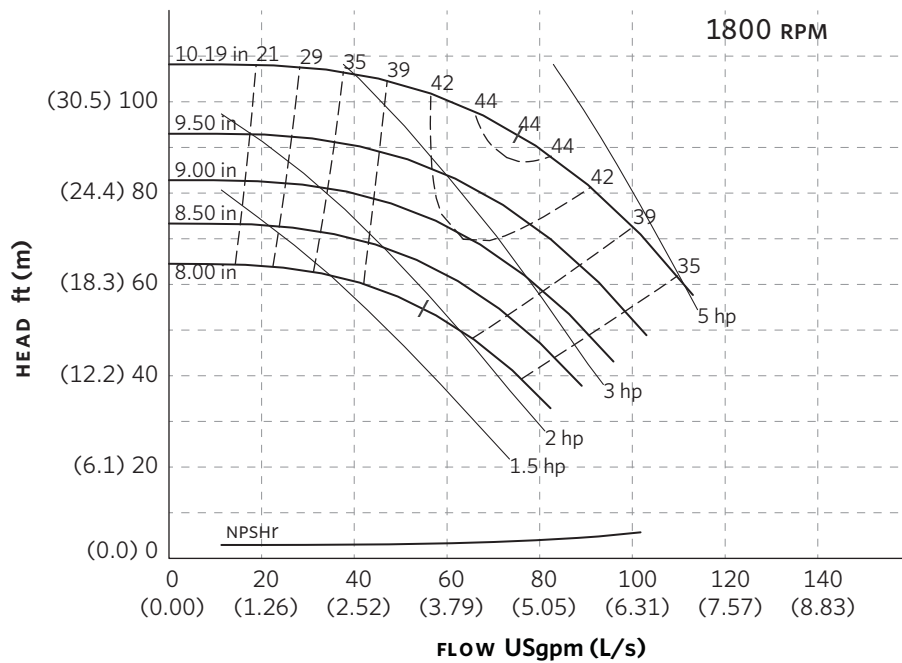
**RPM**  
3600

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT33-3-0-1800

**Series**  
4030  
4280

**Size**  
2 × 1 × 10

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

**TORONTO**

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 3 × 1.5 × 6 | SUBMITTAL

File No: 42.55  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.55  
Date: DECEMBER 15, 2010

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) Flanged  
 Discharge: 1.5" (38mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

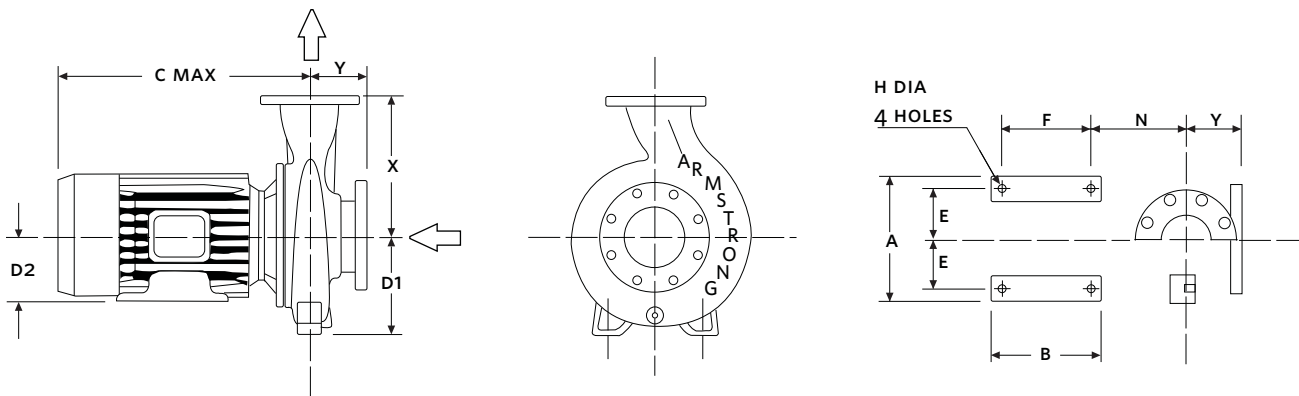
FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Temperature</b>	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

MOTOR	HP @ RPM (ODP & TEFC)			MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME						ODP	TEFC							ODP	TEFC
143JM	—	1	1	7.00 (178)	5.00 (127)	13.00 (330)	15.00 (381)	5.25 (133)	3.50 (89)	2.75 (70)	4.00 (102)	0.35 (9)	6.63 (168)	85 (38.6)	90 (40.9)
145JM	3	1.5	—	7.00 (178)	6.00 (152)	14.00 (356)	16.00 (406)	5.25 (133)	3.50 (89)	2.75 (70)	5.00 (127)	0.35 (9)	6.63 (168)	90 (40.9)	110 (49.9)
184JM	5 & 7.5	—	—	9.00 (229)	6.75 (172)	16.00 (406)	18.00 (457)	5.25 (133)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	7.38 (187)	125 (56.8)	150 (68.1)
213JM	10	—	—	10.50 (267)	7.00 (178)	17.00 (432)	19.00 (483)	5.25 (133)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	8.25 (210)	160 (72.6)	175 (79.5)

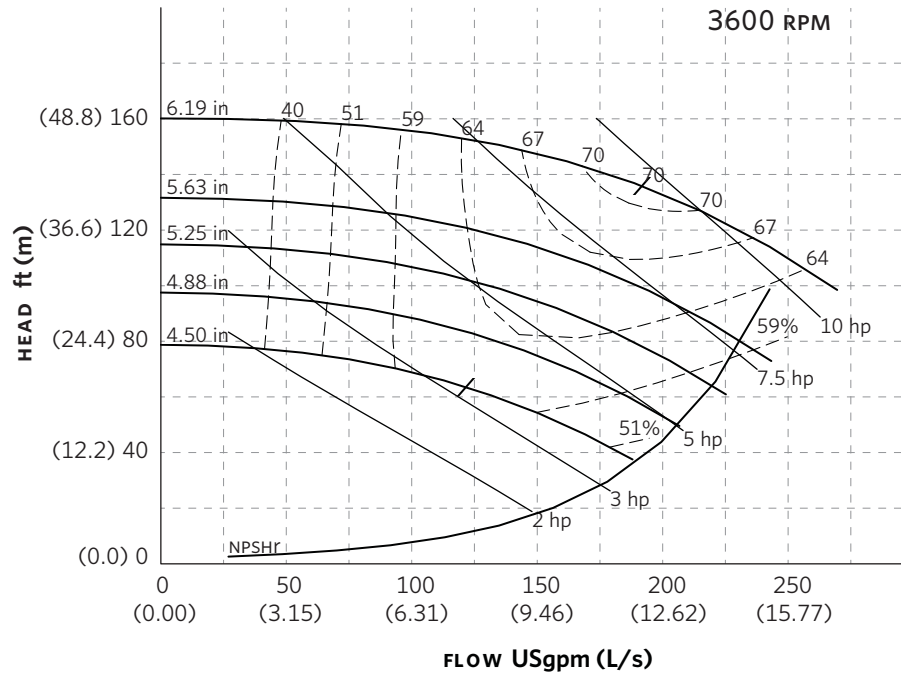
**PUMP DIMENSIONS**  
inches (mm)

X	Y
6.50 (165)	4.00 (102)

\*Assembly weight combines pump and motor.



## SERIES 4280 PERFORMANCE CURVES



**Curve number**  
PT49-4-0-3600

**Series**  
4030  
4280

**Size**  
3 × 1.5 × 6

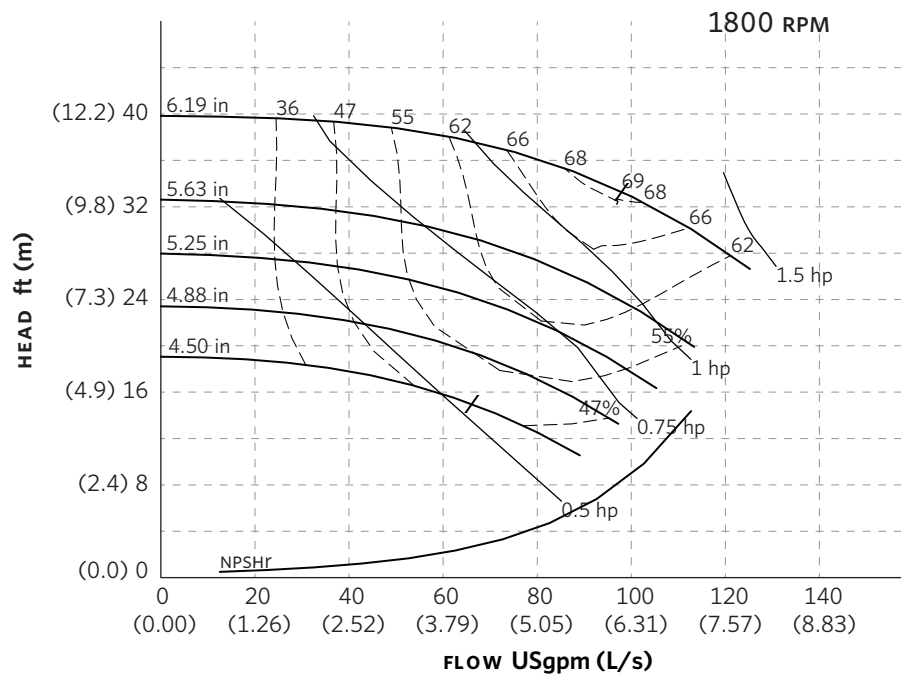
**RPM**  
3600

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 FR 143 MIN.

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT48-4-0-1800

**Series**  
4030  
4280

**Size**  
3 × 1.5 × 6

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 FR 143 MIN.

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 3 × 1.5 × 8 | SUBMITTAL

File No: 42.60  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.60  
Date: DECEMBER 15, 2010

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) Flanged  
 Discharge: 1.5" (38mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

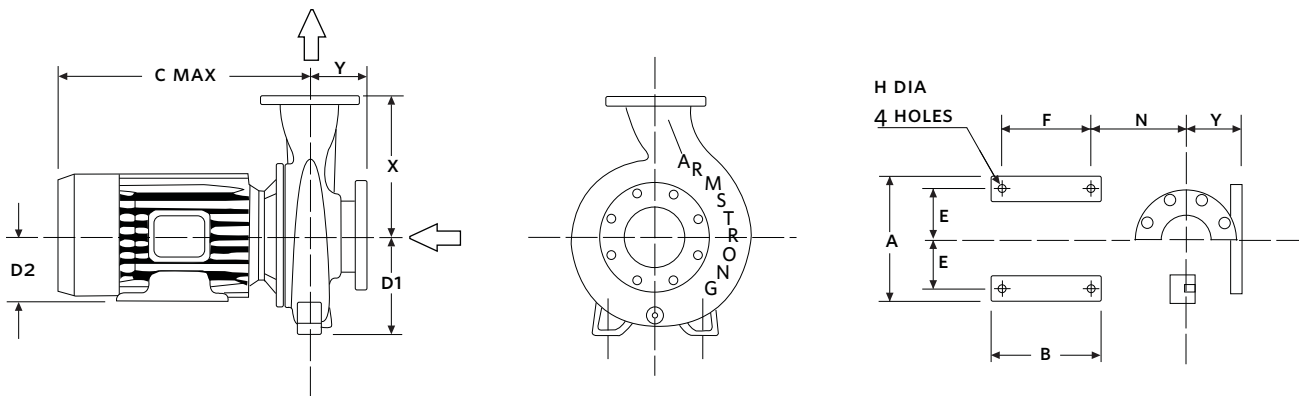
FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Temperature</b>	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

MOTOR	HP @ RPM (ODP & TEFC)			MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME						ODP	TEFC							ODP	TEFC
143JM	—	1	—	7.00 (178)	5.00 (127)	13.00 (330)	15.00 (381)	5.63 (143)	3.50 (89)	2.75 (70)	4.00 (102)	0.35 (9)	6.63 (168)	106 (48.1)	116 (52.7)
145JM	—	1.5 & 2	1	7.00 (178)	6.00 (152)	14.00 (356)	16.00 (406)	5.63 (143)	3.50 (89)	2.75 (70)	5.00 (127)	0.35 (9)	6.63 (168)	111 (50.4)	116 (52.7)
182JM	—	3	—	9.00 (229)	5.75 (146)	15.00 (381)	17.00 (432)	5.63 (143)	4.50 (114)	3.75 (95)	4.50 (114)	0.41 (10)	7.38 (187)	126 (57.2)	141 (64.0)
184JM	7.5	5	—	9.00 (229)	6.75 (172)	16.00 (406)	18.00 (457)	5.63 (143)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	7.38 (187)	151 (68.6)	176 (79.9)
213JP	10	—	—	10.50 (267)	7.00 (178)	21.00 (533)	23.00 (584)	5.63 (143)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	186 (84.4)	201 (91.3)
215JP	15	—	—	10.50 (267)	8.50 (216)	23.00 (584)	25.00 (635)	5.63 (143)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	216 (98.1)	226 (102.6)
254JM	20	—	—	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	5.63 (143)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	236 (107.1)	301 (136.7)
256JM	25	—	—	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	5.63 (143)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	271 (123.0)	336 (152.5)
284JM	30	—	—	13.88 (353)	12.25 (311)	24.00 (610)	26.00 (660)	5.63 (143)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	9.75 (248)	306 (138.9)	376 (170.7)

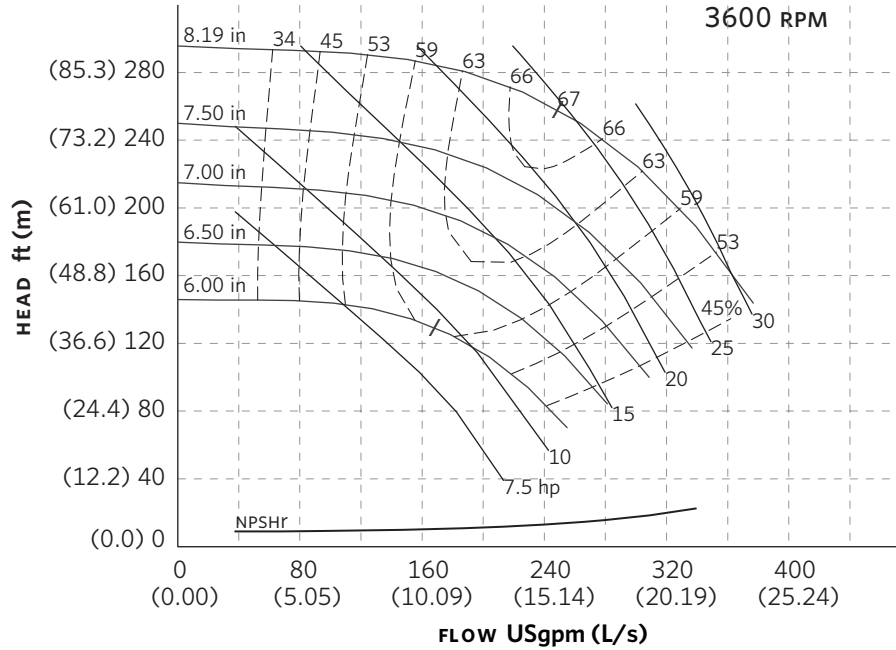
**PUMP DIMENSIONS**  
inches (mm)

X	Y
8.50 (216)	4.00 (102)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT51-3-0-3600

**Series**  
4030  
4280

**Size**  
3 × 1.5 × 8

**RPM**  
3600

---

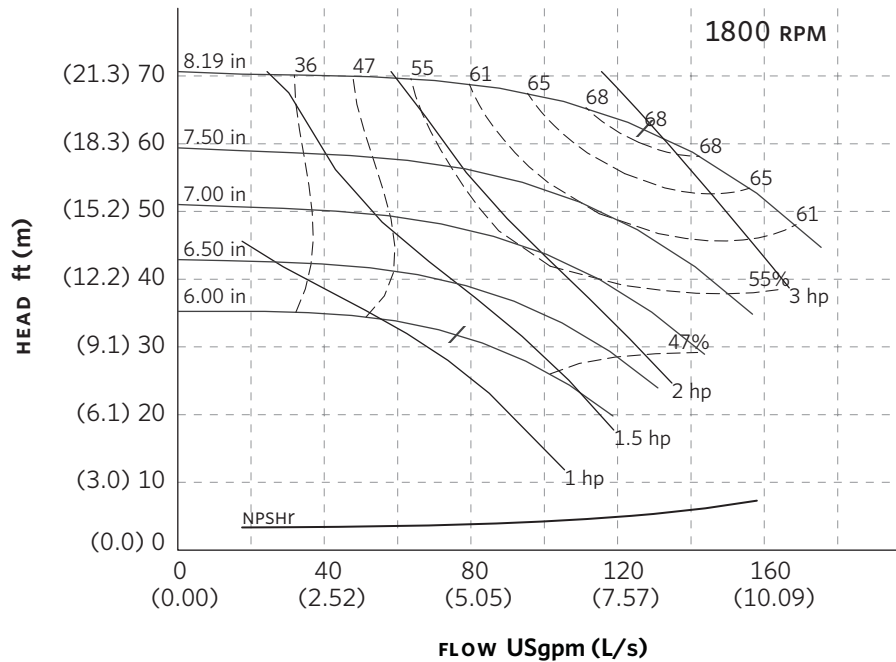
BHP based on shown  
Fluid's sp. gr.

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**Availability**  
4030 all ratings  
4280 all ratings

---

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT50-4-0-1800

**Series**  
4030  
4280

**Size**  
3 × 1.5 × 8

**RPM**  
1800

---

BHP based on shown  
Fluid's sp. gr.

---

**Availability**  
4030 all ratings  
4280 all ratings

---

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 3 × 1.5 × 10 | SUBMITTAL

File No: 42.67  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.67  
Date: DECEMBER 15, 2010

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) Flanged  
Discharge: 1.5" (38mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

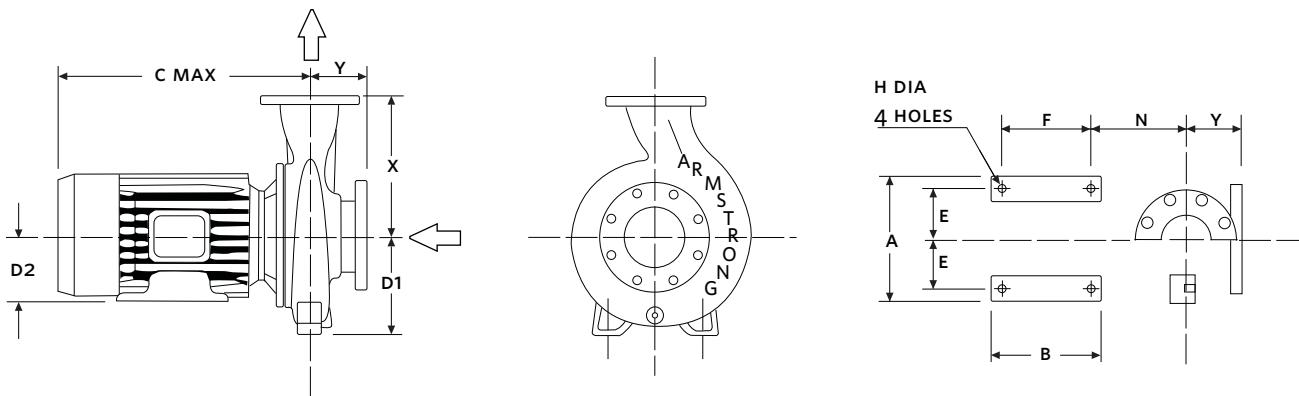
MOTOR	HP @ RPM (ODP & TEFC)			MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME						ODP	TEFC							ODP	TEFC
145JM	—	2	1	7.00 (178)	6.00 (152)	14.00 (356)	16.00 (406)	8.25 (210)	3.50 (89)	2.75 (70)	5.00 (127)	0.35 (9)	6.63 (168)	145 (65.8)	150 (68.1)
182JM	—	3	1.5	9.00 (229)	5.75 (146)	15.00 (381)	17.00 (432)	8.25 (210)	4.50 (114)	3.75 (95)	4.50 (114)	0.41 (10)	7.38 (187)	176 (79.9)	178 (80.8)
184JM	—	5	—	9.00 (229)	6.75 (172)	16.00 (406)	18.00 (457)	8.25 (210)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	7.38 (187)	180 (81.7)	185 (84.0)
213JP	—	7.5	2	10.50 (267)	7.00 (178)	21.00 (533)	23.00 (584)	8.25 (210)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	210 (95.3)	220 (99.9)
215JP	15	—	—	10.50 (267)	8.50 (216)	23.00 (584)	25.00 (635)	8.25 (210)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	250 (113.5)	260 (118.0)
254JM	20	—	—	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	8.25 (210)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	270 (122.6)	335 (152.1)
256JM	25	—	—	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	8.25 (210)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	305 (138.5)	370 (168.0)
284JM	30	—	—	13.88 (353)	12.25 (311)	27.00 (686)	29.00 (737)	8.25 (210)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.63 (321)	340 (154.4)	410 (186.1)
286JM	40	—	—	13.88 (353)	13.75 (349)	29.00 (737)	30.00 (762)	8.25 (210)	7.00 (178)	5.50 (140)	11.00 (279)	0.53 (13)	12.63 (321)	430 (195.2)	520 (236.1)
324JM	50	—	—	15.88 (403)	13.75 (349)	29.00 (737)	31.00 (787)	8.25 (210)	8.00 (203)	6.25 (159)	10.50 (267)	0.66 (17)	13.13 (334)	530 (240.6)	640 (290.6)

**PUMP DIMENSIONS**

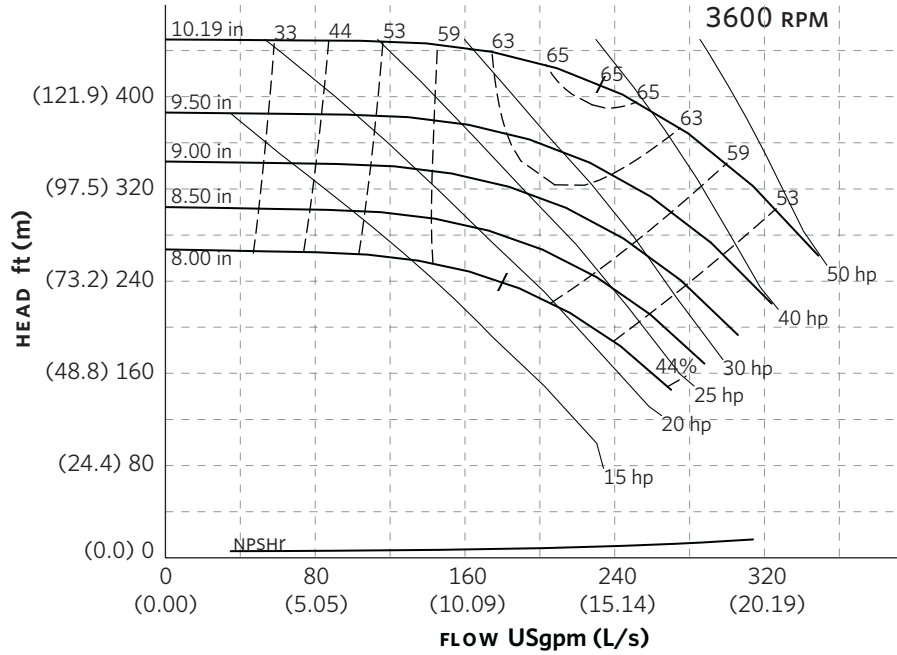
inches (mm)

X	Y
8.50 (216)	4.00 (102)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT45-2-0-3600

**Series**  
4030  
4280

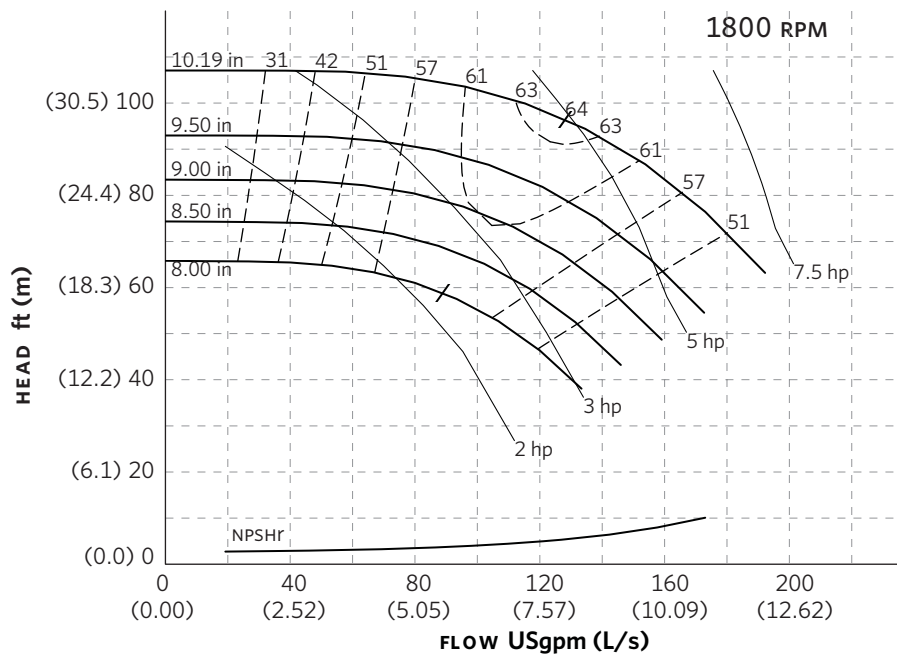
**Size**  
3 × 1.5 × 10

**RPM**  
3600

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT44-2-0-1800

**Series**  
4030  
4280

**Size**  
3 × 1.5 × 10

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 3 × 1.5 × 13 | SUBMITTAL

File No: 42.79  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.79  
Date: DECEMBER 15, 2010

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) Lugged  
 Discharge: 1.5" (38mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

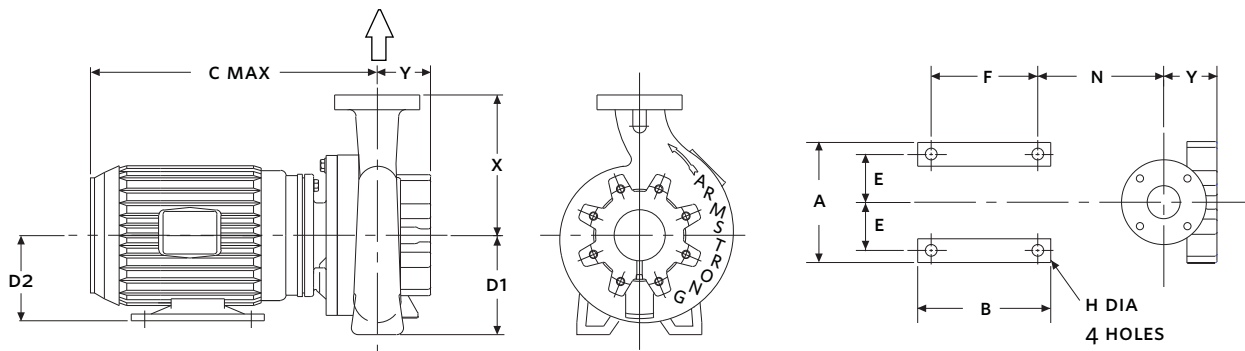
MOTOR	HP @ RPM (ODP & TEFC)			MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME						ODP	TEFC							ODP	TEFC
213JP	—	7.5	2 & 3	10.50 (267)	7.00 (178)	22.00 (559)	23.00 (584)	10.00 (254)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	248 (112.6)	258 (117.1)
215JP	—	10	5	10.50 (267)	8.50 (216)	23.00 (584)	24.00 (610)	10.00 (254)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	263 (119.4)	280 (127.1)
254JM	—	15	—	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	10.00 (254)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	308 (139.8)	358 (162.5)
256JM	—	20	—	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	10.00 (254)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	343 (155.7)	413 (187.5)
286JP	40	—	—	13.88 (353)	13.75 (349)	28.88 (734)	29.88 (759)	10.00 (254)	7.00 (178)	5.50 (140)	12.88 (327)	0.53 (13)	12.88 (327)	468 (212.5)	558 (253.3)
324JP	50	—	—	15.88 (403)	13.75 (349)	28.88 (734)	30.88 (784)	10.00 (254)	8.00 (203)	6.25 (159)	10.50 (267)	0.66 (17)	13.13 (334)	568 (257.9)	678 (307.8)
326JP	60	—	—	15.88 (403)	15.25 (387)	30.88 (784)	32.88 (835)	10.00 (254)	8.00 (203)	6.25 (159)	12.00 (305)	0.66 (17)	13.13 (334)	608 (276.0)	738 (335.1)

**PUMP DIMENSIONS**

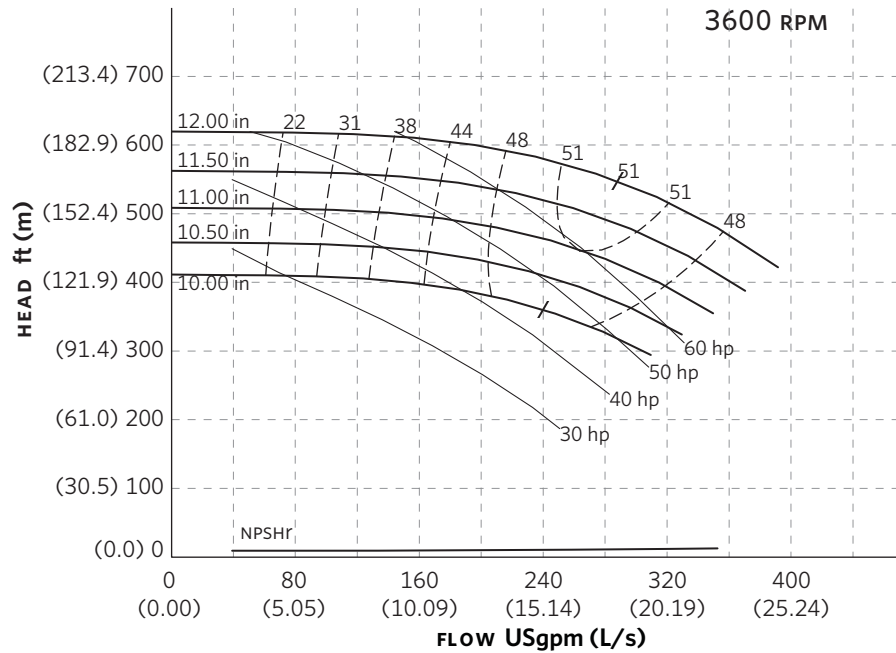
inches (mm)

X	Y
10.50 (267)	4.00 (102)

\*Assembly weight combines pump and motor.



## SERIES 4280 PERFORMANCE CURVES



**Curve number**  
PT47-2-4-3600

**Series**  
4030  
4280

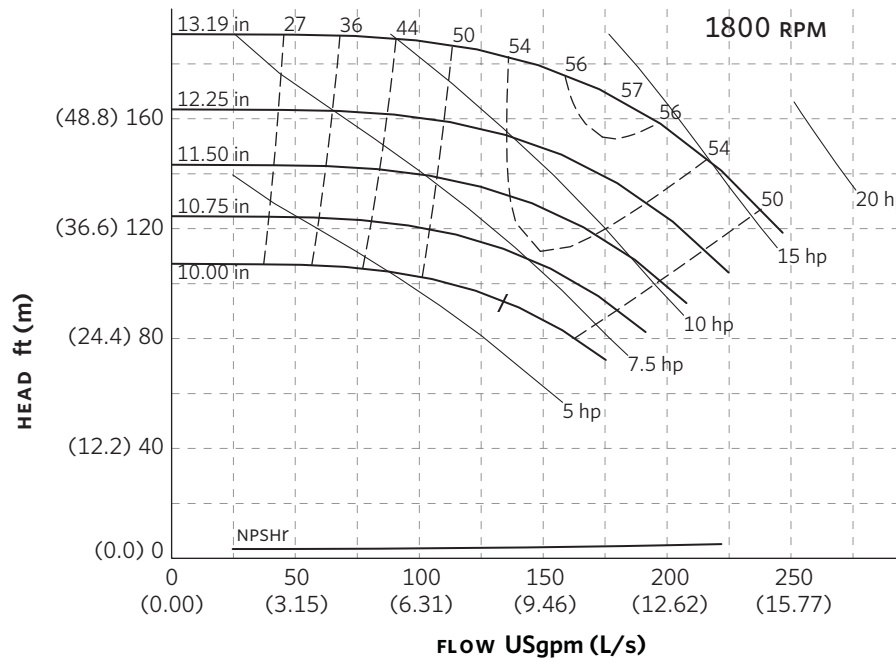
**Size**  
3 × 1.5 × 13

**RPM**  
3600

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 FR 326 MAX.

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT46-2-0-1800

**Series**  
4030  
4280

**Size**  
3 × 1.5 × 13

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 FR 213 MIN.  
4280 FR 213 MIN.

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 3 × 2.5 × 6 | SUBMITTAL

File No: 42.57  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.57  
Date: DECEMBER 15, 2010

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) Flanged  
Discharge: 2.5" (62mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

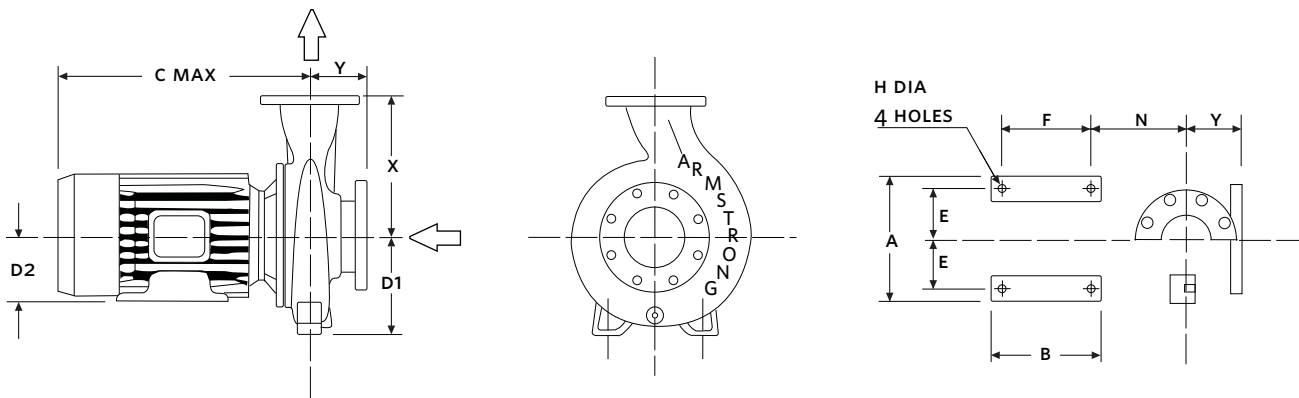
MOTOR	HP @ RPM (ODP & TEFC)			MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME						ODP	TEFC							ODP	TEFC
143JM	—	1	—	7.00 (178)	5.00 (127)	13.00 (330)	15.00 (381)	5.63 (143)	3.50 (89)	2.75 (70)	4.00 (102)	0.35 (9)	6.63 (168)	89 (40.4)	99 (44.9)
145JM	3	1.5 & 2	1	7.00 (178)	6.00 (152)	14.00 (356)	16.00 (406)	5.63 (143)	3.50 (89)	2.75 (70)	5.00 (127)	0.35 (9)	6.63 (168)	94 (42.7)	99 (44.9)
184JM	5 & 7.5	—	—	9.00 (229)	6.75 (172)	16.00 (406)	18.00 (457)	5.63 (143)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	7.38 (187)	134 (60.8)	159 (72.2)
213JM	10	—	—	10.50 (267)	7.00 (178)	17.00 (432)	19.00 (483)	5.63 (143)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	8.25 (210)	169 (76.7)	184 (83.5)
215JM	15	—	—	10.50 (267)	8.50 (216)	19.00 (483)	21.00 (533)	5.63 (143)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	8.25 (210)	199 (90.3)	209 (94.9)

**PUMP DIMENSIONS**

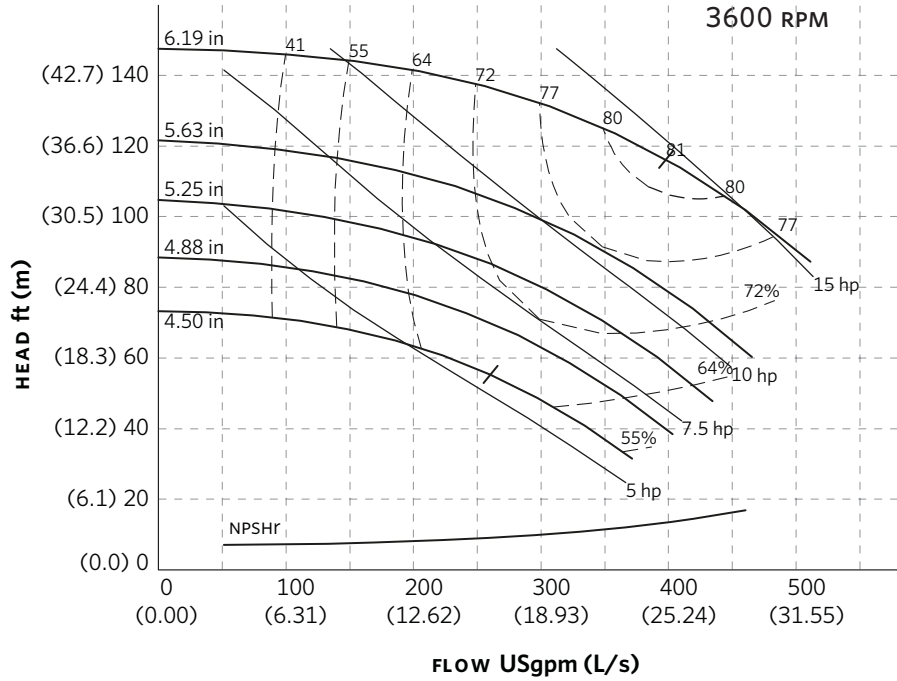
inches (mm)

X	Y
8.25 (210)	4.00 (102)

\*Assembly weight combines pump and motor.



## SERIES 4280 PERFORMANCE CURVES



**Curve number**  
PT55-2-0-3600

**Series**  
4030  
4280

**Size**  
3 × 2.5 × 6

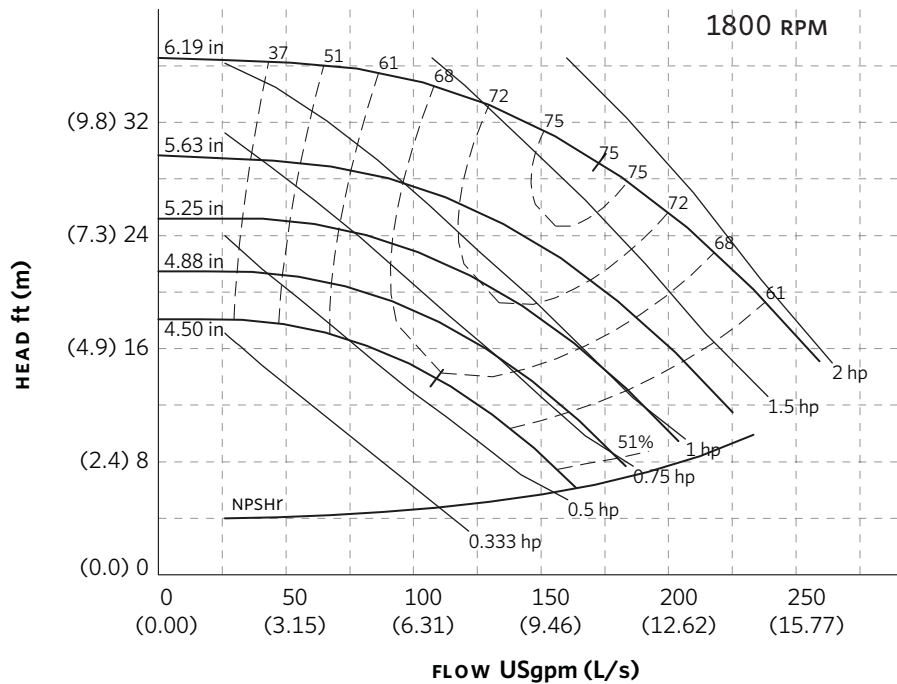
**RPM**  
3600

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT54-1-0-1800

**Series**  
4030  
4280

**Size**  
3 × 2.5 × 6

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 FR 143 MIN.

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 3 × 2.5 × 8 | SUBMITTAL

File No: 42.62  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.62  
Date: DECEMBER 15, 2010

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) Flanged  
 Discharge: 2.5" (62mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

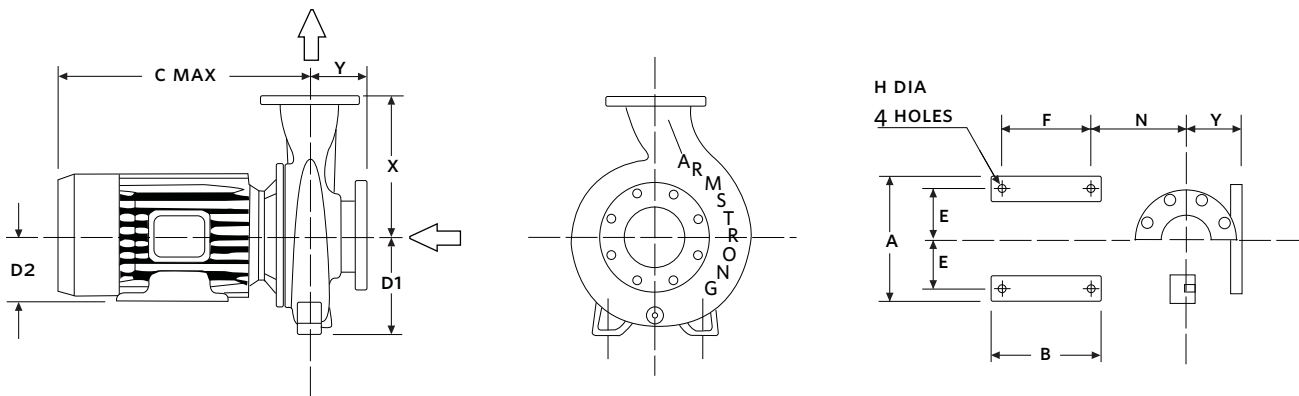
MOTOR	HP @ RPM (ODP & TEFC)			MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME						ODP	TEFC							ODP	TEFC
145JM	—	1.5 & 2	1	7.00 (178)	6.00 (152)	14.00 (356)	16.00 (406)	6.63 (168)	3.50 (89)	2.75 (70)	5.00 (127)	0.35 (9)	6.63 (168)	115 (52.2)	120 (54.5)
182JM	—	3	1.5	9.00 (229)	5.75 (146)	15.00 (381)	17.00 (432)	6.63 (168)	4.50 (114)	3.75 (95)	4.50 (114)	0.41 (10)	7.38 (187)	146 (66.3)	148 (67.2)
184JM	—	5	2	9.00 (229)	6.75 (172)	16.00 (406)	18.00 (457)	6.63 (168)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	7.38 (187)	150 (68.1)	153 (69.5)
213JP	—	7.5	—	10.50 (267)	7.00 (178)	21.00 (533)	23.00 (584)	6.63 (168)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	180 (81.7)	190 (86.3)
215JP	15	—	—	10.50 (267)	8.50 (216)	23.00 (584)	25.00 (635)	6.63 (168)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	220 (99.9)	230 (104.4)
254JM	20	—	—	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	6.63 (168)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	240 (109.0)	305 (138.5)
256JM	25	—	—	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	6.63 (168)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	275 (124.9)	340 (154.4)
284JM	30	—	—	13.88 (353)	12.25 (311)	24.00 (610)	26.00 (660)	6.63 (168)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	9.75 (248)	310 (140.7)	380 (172.5)
286JM	40	—	—	13.88 (353)	13.75 (349)	26.00 (660)	27.00 (686)	6.63 (168)	7.00 (178)	5.50 (140)	11.00 (279)	0.53 (13)	9.75 (248)	400 (181.6)	490 (222.5)
324JM	50	—	—	15.88 (403)	13.75 (349)	26.00 (660)	29.00 (737)	6.63 (168)	8.00 (203)	6.25 (159)	10.50 (267)	0.66 (17)	10.25 (260)	500 (227.0)	610 (276.9)

**PUMP DIMENSIONS**

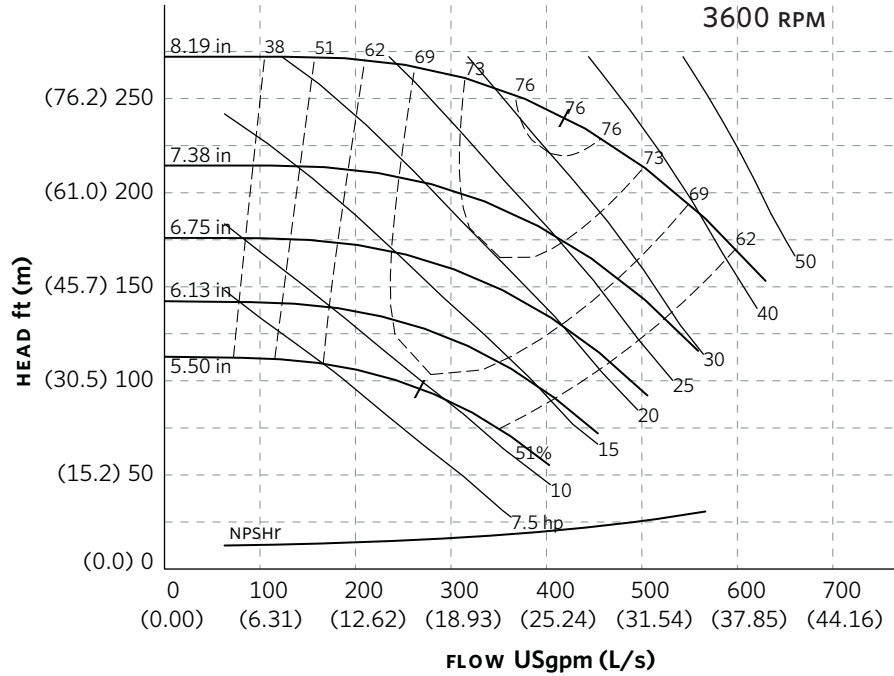
inches (mm)

X	Y
9.50 (241)	4.00 (102)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT57-1-0-3600

**Series**  
4030  
4280

**Size**  
3 × 2.5 × 8

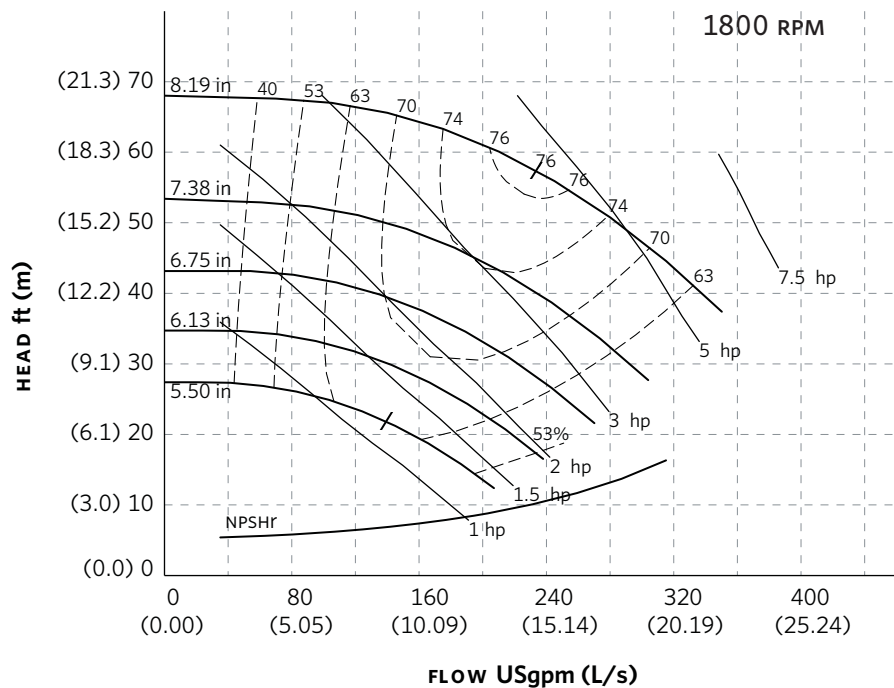
**RPM**  
3600

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT56-1-0-1800

**Series**  
4030  
4280

**Size**  
3 × 2.5 × 8

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 3 × 2.5 × 10 | SUBMITTAL

File No: 42.69  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.69  
Date: DECEMBER 15, 2010

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) Flanged  
 Discharge: 2.5" (62mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

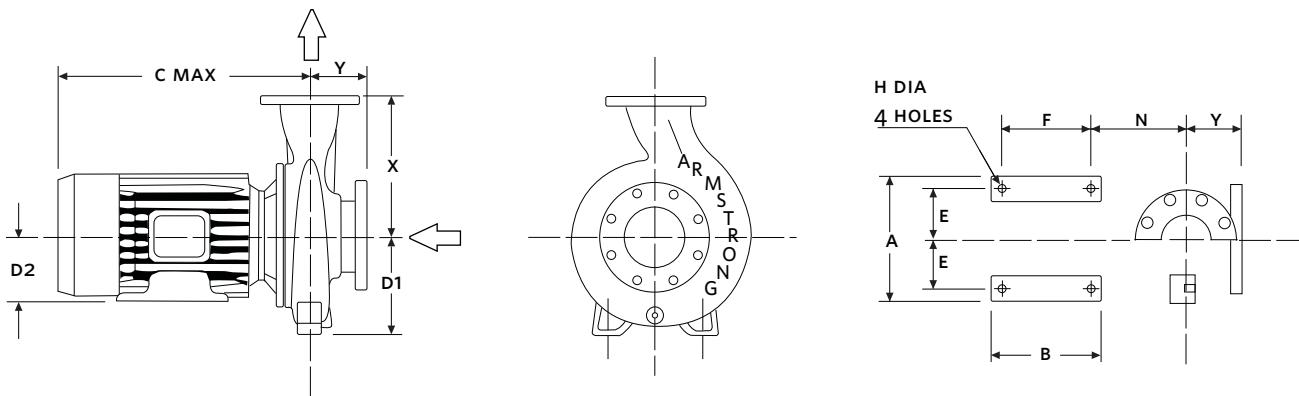
MOTOR	HP @ RPM (ODP & TEFC)			MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME						ODP	TEFC							ODP	TEFC
145JM	—	—	1	7.00 (178)	6.00 (152)	14.00 (356)	16.00 (406)	8.25 (210)	3.50 (89)	2.75 (70)	5.00 (127)	0.35 (9)	6.63 (168)	157 (71.3)	162 (73.5)
182JM	—	3	—	9.00 (229)	5.75 (146)	15.00 (381)	17.00 (432)	8.25 (210)	4.50 (114)	3.75 (95)	4.50 (114)	0.41 (10)	7.38 (187)	172 (78.1)	187 (84.9)
184JM	—	5	—	9.00 (229)	6.75 (172)	16.00 (406)	18.00 (457)	8.25 (210)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	7.38 (187)	192 (87.2)	197 (89.4)
213JP	—	7.5	2 & 3	10.50 (267)	7.00 (178)	21.00 (533)	23.00 (584)	8.25 (210)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	222 (100.8)	232 (105.3)
215JP	—	10	5	10.50 (267)	8.50 (216)	23.00 (584)	25.00 (635)	8.25 (210)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	237 (107.6)	247 (112.1)
254JM	—	15	—	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	8.25 (210)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	282 (128.0)	332 (150.7)
284JM	30	—	—	13.88 (353)	12.25 (311)	27.00 (686)	29.00 (737)	8.25 (210)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.63 (321)	352 (159.8)	422 (191.6)
286JM	40	—	—	13.88 (353)	13.75 (349)	29.00 (737)	31.00 (787)	8.25 (210)	8.00 (203)	5.50 (140)	11.00 (279)	0.53 (13)	12.63 (321)	442 (200.7)	532 (241.5)
324JM	50	—	—	15.88 (403)	13.75 (349)	29.00 (737)	31.00 (787)	8.25 (210)	8.00 (203)	6.25 (159)	10.50 (267)	0.66 (17)	13.13 (334)	542 (246.1)	652 (296.0)
326JM	60	—	—	15.88 (403)	15.25 (387)	31.00 (787)	33.00 (838)	8.25 (210)	8.00 (203)	6.25 (159)	12.00 (305)	0.66 (17)	13.13 (334)	582 (264.2)	712 (323.2)

**PUMP DIMENSIONS**

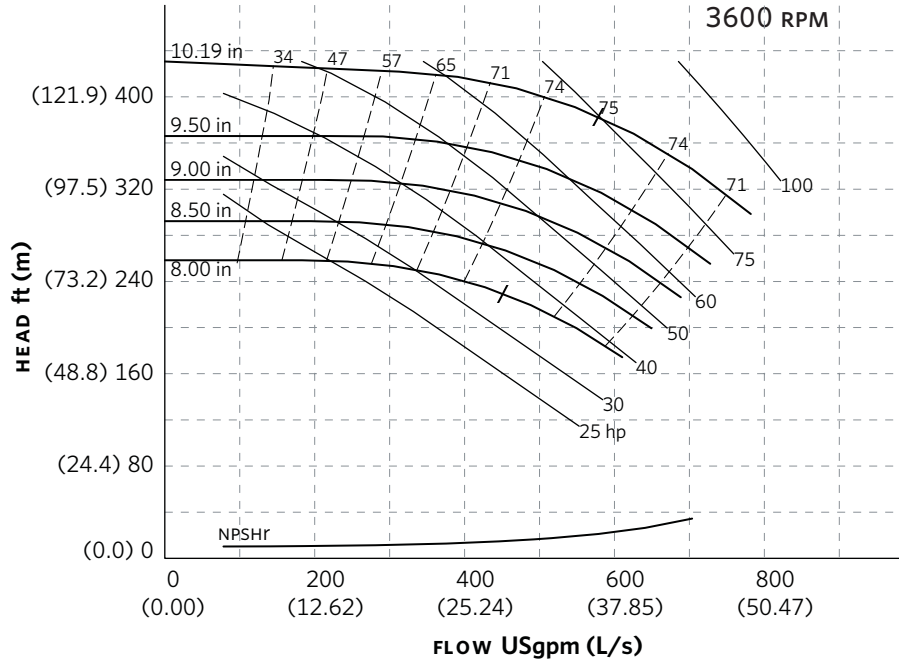
inches (mm)

X	Y
9.50 (241)	4.00 (102)

\*Assembly weight combines pump and motor.



## SERIES 4280 PERFORMANCE CURVES



**Curve number**  
PT53-2-0-3600

**Series**  
4030  
4280

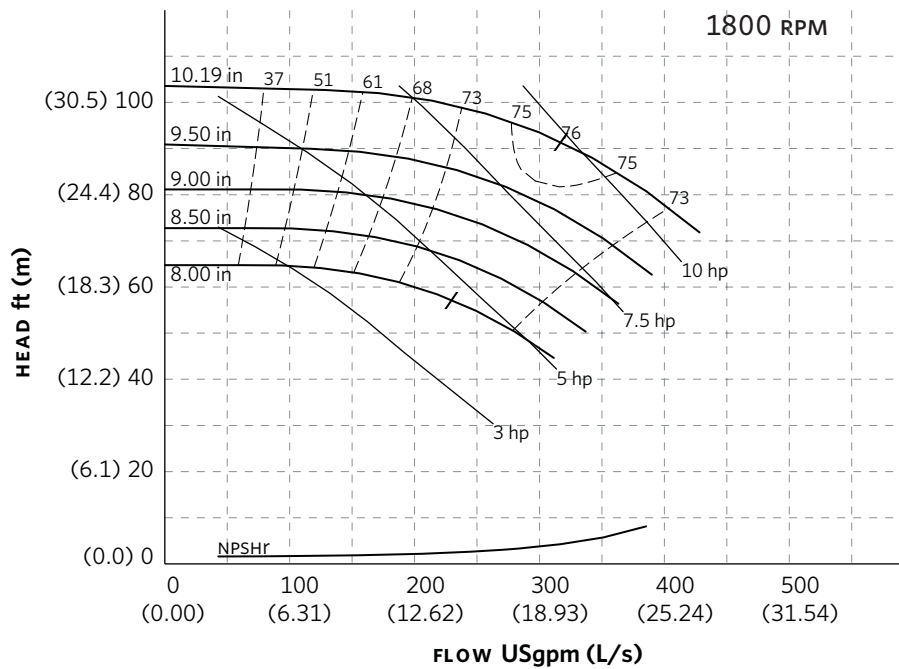
**Size**  
3 × 2.5 × 10

**RPM**  
3600

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 FR 405 MAX.  
4280 FR 326 MAX.

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT52-2-0-1800

**Series**  
4030  
4280

**Size**  
3 × 2.5 × 10

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 3 × 2 × 6 | SUBMITTAL

File No: 42.56  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.56  
Date: DECEMBER 15, 2010

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) Flanged  
 Discharge: 2" (50 mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

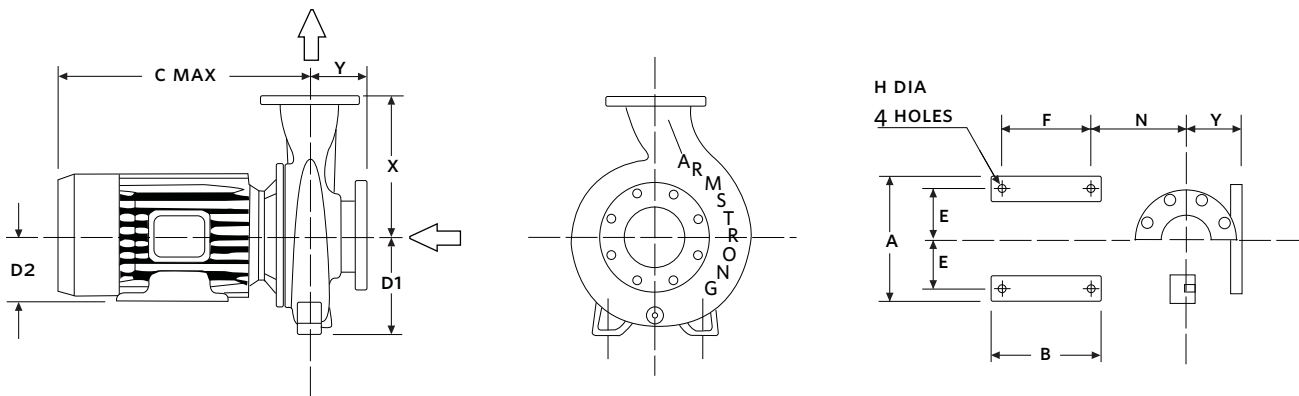
MOTOR	HP @ RPM (ODP & TEFC)			MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME						ODP	TEFC							ODP	TEFC
143JM	—	1	—	7.00 (178)	5.00 (127)	13.00 (330)	15.00 (381)	5.63 (143)	3.50 (89)	2.75 (70)	4.00 (102)	0.35 (9)	6.63 (168)	89 (40.4)	99 (44.9)
145JM	3	1.5	1	7.00 (178)	6.00 (152)	14.00 (356)	16.00 (406)	5.63 (143)	3.50 (89)	2.75 (70)	5.00 (127)	0.35 (9)	6.63 (168)	99 (44.9)	119 (54.0)
184JM	5 & 7.5	—	—	9.00 (229)	6.75 (172)	16.00 (406)	18.00 (457)	5.63 (143)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	7.38 (187)	134 (60.8)	159 (72.2)
213JM	10	—	—	10.50 (267)	7.00 (178)	17.00 (432)	19.00 (483)	5.63 (143)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	8.25 (210)	169 (76.7)	184 (83.5)
215JM	15	—	—	10.50 (267)	8.50 (216)	19.00 (483)	21.00 (533)	5.63 (143)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	8.25 (210)	199 (90.3)	209 (94.9)

**PUMP DIMENSIONS**

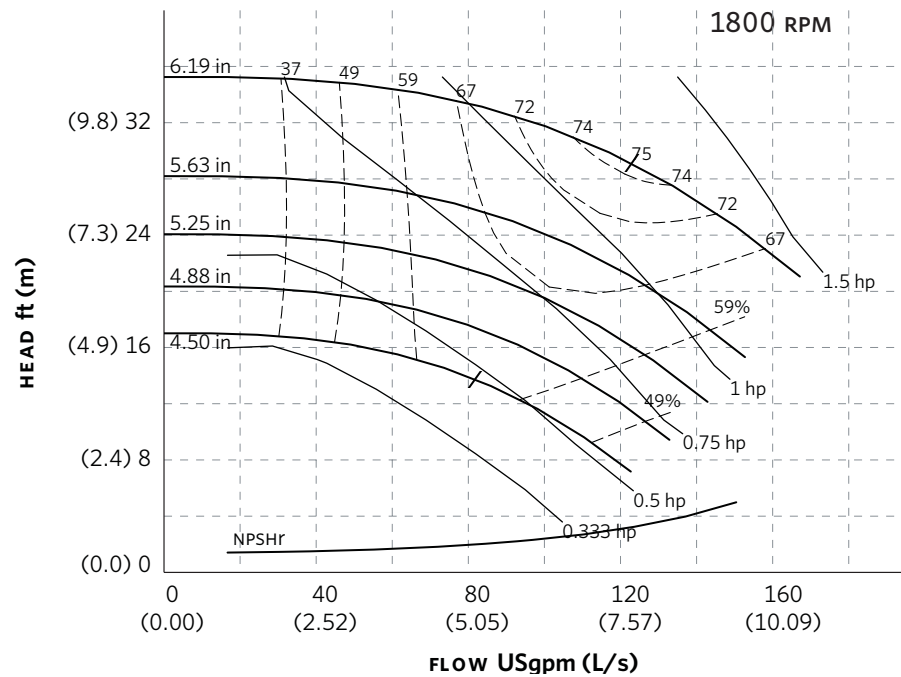
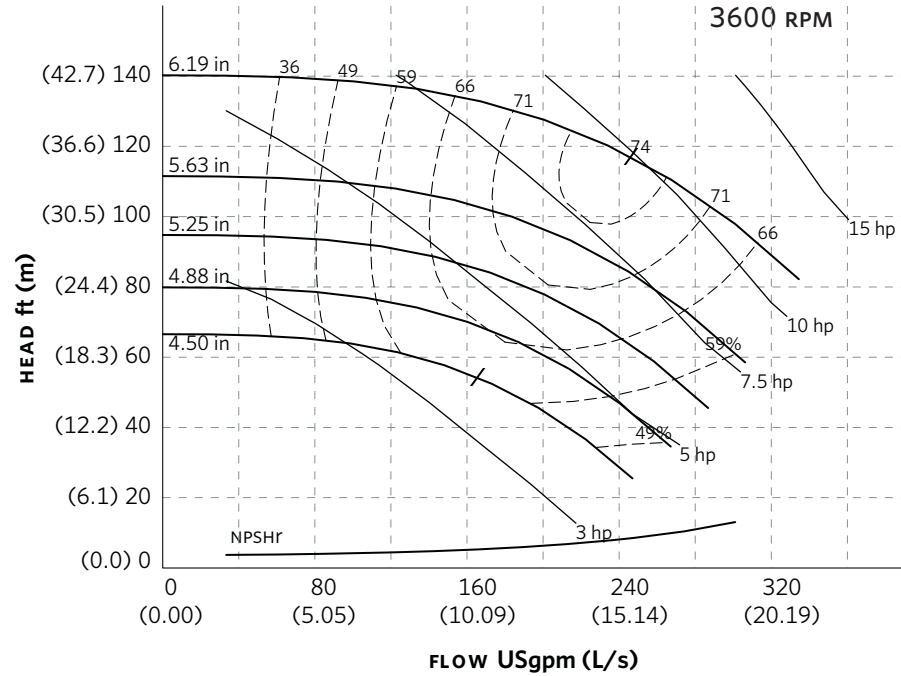
inches (mm)

X	Y
8.25 (210)	4.00 (102)

\*Assembly weight combines pump and motor.



## SERIES 4280 PERFORMANCE CURVES



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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 3 × 2 × 8 | SUBMITTAL

File No: 42.61  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.61  
Date: DECEMBER 15, 2010

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) Flanged  
 Discharge: 2" (50mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

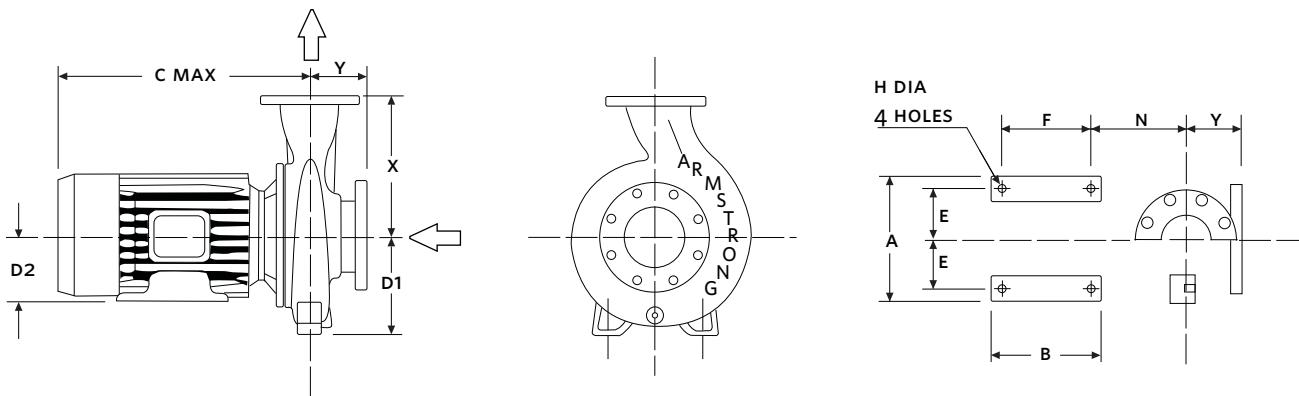
MOTOR	HP @ RPM (ODP & TEFC)			MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME						ODP	TEFC							ODP	TEFC
145JM	—	1.5 & 2	1	7.00 (178)	6.00 (152)	14.00 (356)	16.00 (406)	6.63 (168)	3.50 (89)	2.75 (70)	5.00 (127)	0.35 (9)	6.63 (168)	115 (52.2)	120 (54.5)
182JM	—	3	1.5	9.00 (229)	5.75 (146)	15.00 (381)	17.00 (432)	6.63 (168)	4.50 (114)	3.75 (95)	4.50 (114)	0.41 (10)	7.38 (187)	146 (66.3)	148 (67.2)
184JM	—	5	—	9.00 (229)	6.75 (172)	16.00 (406)	18.00 (457)	6.63 (168)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	7.38 (187)	155 (70.4)	150 (68.1)
215JP	15	—	—	10.50 (267)	8.50 (216)	23.00 (584)	25.00 (635)	6.63 (168)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	220 (99.9)	230 (104.4)
254JM	20	—	—	12.38 (314)	10.50 (267)	22.00 (559)	24.00	6.63 (168)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	240 (109.0)	305 (138.5)
256JM	25	—	—	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	6.63 (168)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	275 (124.9)	340 (154.4)
284JM	30	—	—	13.88 (353)	12.25 (311)	24.00 (610)	26.00 (660)	6.63 (168)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	9.75 (248)	310 (140.7)	340 (154.4)

**PUMP DIMENSIONS**

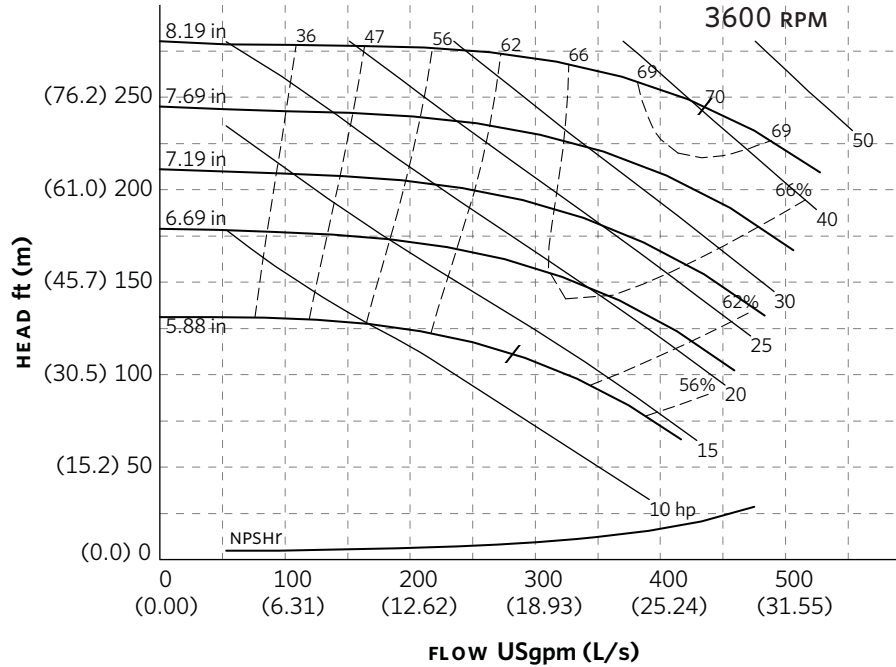
inches (mm)

X	Y
9.50 (241)	4.00 (102)

\*Assembly weight combines pump and motor.



## SERIES 4280 PERFORMANCE CURVES



**Curve number**  
PT65-3-0-3600

**Series**  
4030  
4280

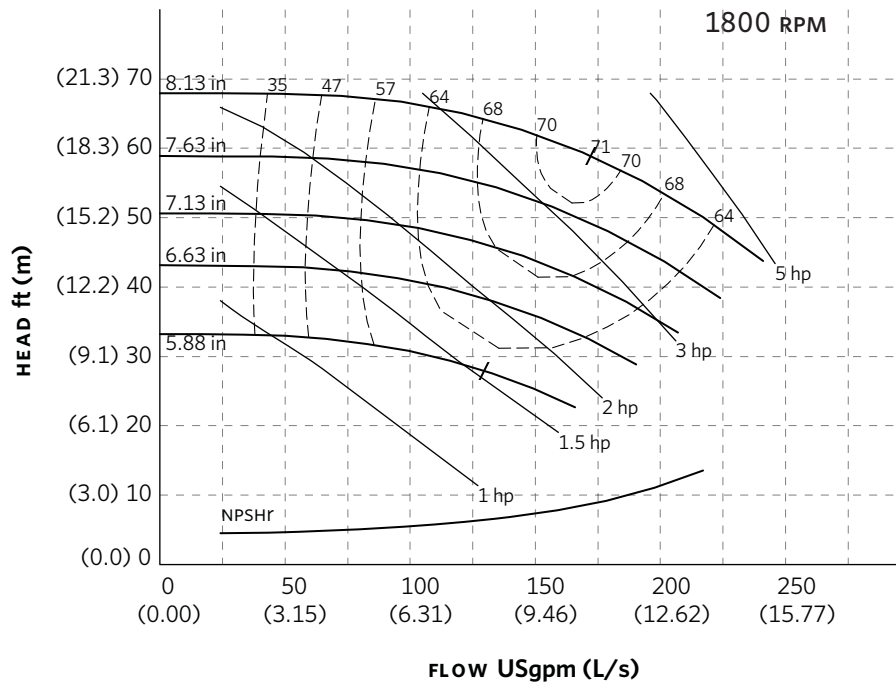
**Size**  
3 × 2 × 8

**RPM**  
3600

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT64-2-0-1800

**Series**  
4030  
4280

**Size**  
3 × 2 × 8

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 3 × 2 × 10 | SUBMITTAL

File No: 42.68  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.68  
Date: DECEMBER 15, 2010

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) Flanged  
Discharge: 2" (50mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

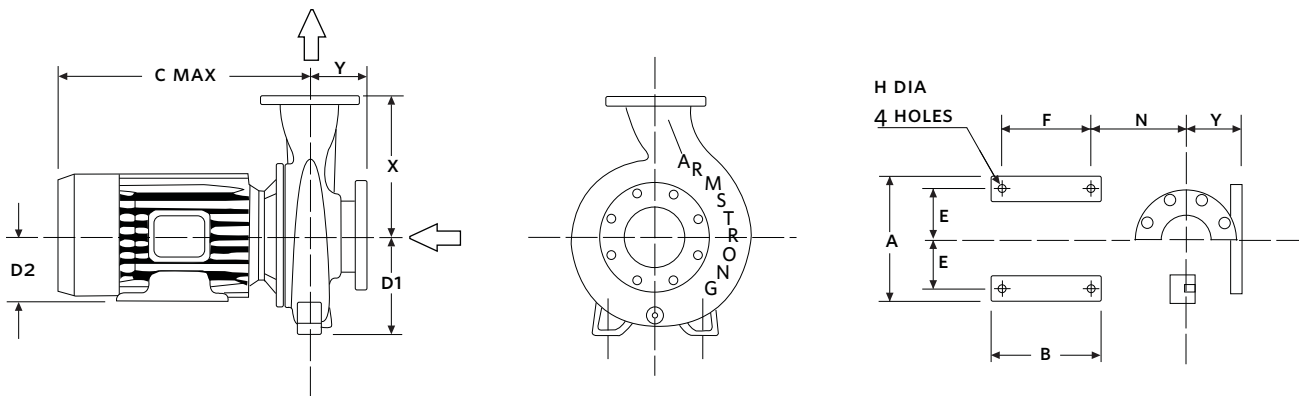
FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Temperature</b>	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

MOTOR	HP @ RPM (ODP & TEFC)			MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME						ODP	TEFC							ODP	TEFC
145JM	—	—	1	7.00 (178)	6.00 (152)	14.00 (356)	16.00 (406)	8.25 (210)	3.50 (89)	2.75 (70)	5.00 (127)	0.35 (9)	6.63 (168)	155 (70.4)	160 (72.6)
182JM	—	3	1.5	9.00 (229)	5.75 (146)	15.00 (381)	17.00 (432)	8.25 (210)	4.50 (114)	3.75 (95)	4.50 (114)	0.41 (10)	7.38 (187)	186 (84.4)	188 (85.4)
184JM	—	5	—	9.00 (229)	6.75 (172)	16.00 (406)	18.00 (457)	8.25 (210)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	7.38 (187)	190 (86.3)	195 (88.5)
213JP	—	7.5	2 & 3	10.50 (267)	7.00 (178)	21.00 (533)	23.00 (584)	8.25 (210)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	220 (99.9)	230 (104.4)
215JP	—	10	—	10.50 (267)	8.50 (216)	23.00 (584)	25.00 (635)	8.25 (210)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	235 (106.7)	245 (111.2)
256JM	25	—	—	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	8.25 (210)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	315 (143.0)	380 (172.5)
284JM	30	—	—	13.88 (353)	12.25 (311)	27.00 (686)	29.00 (737)	8.25 (210)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.63 (321)	350 (158.9)	420 (190.7)
286JM	40	—	—	13.88 (353)	13.75 (349)	29.00 (737)	31.00 (787)	8.25 (210)	8.00 (203)	5.50 (140)	11.00 (279)	0.53 (13)	12.63 (321)	440 (199.8)	530 (240.6)
324JM	50	—	—	15.88 (403)	13.75 (349)	29.00 (737)	31.00 (787)	8.25 (210)	8.00 (203)	6.25 (159)	10.50 (267)	0.66 (17)	13.13 (334)	540 (245.2)	650 (295.1)
326JM	60	—	—	15.88 (403)	15.25 (387)	31.00 (787)	33.00 (838)	8.25 (210)	8.00 (203)	6.25 (159)	12.00 (305)	0.66 (17)	13.13 (334)	580 (263.3)	710 (322.3)

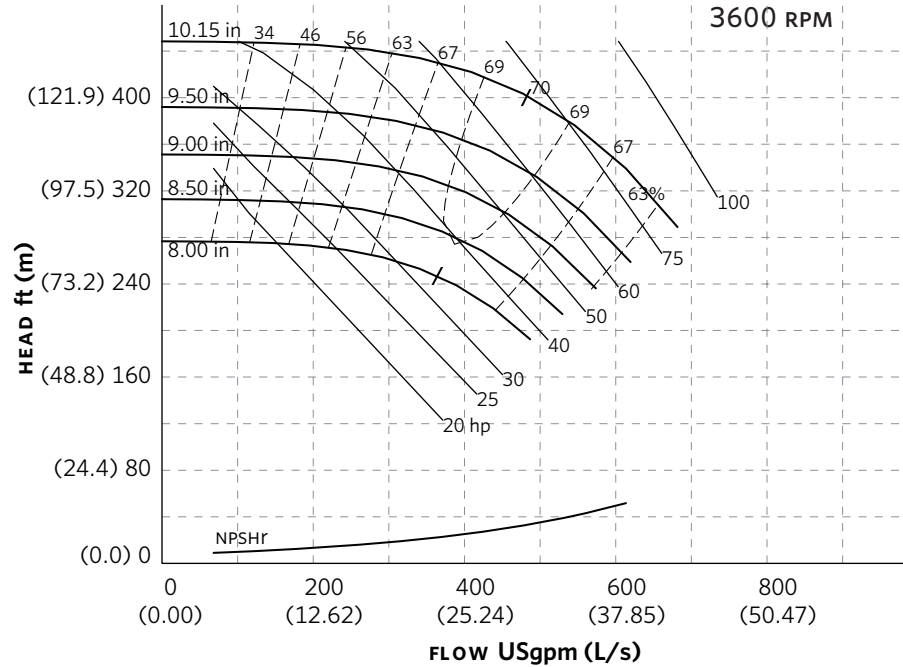
**PUMP DIMENSIONS**  
inches (mm)

X	Y
9.50 (241)	4.00 (102)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT59-2-0-3600

**Series**  
4030  
4280

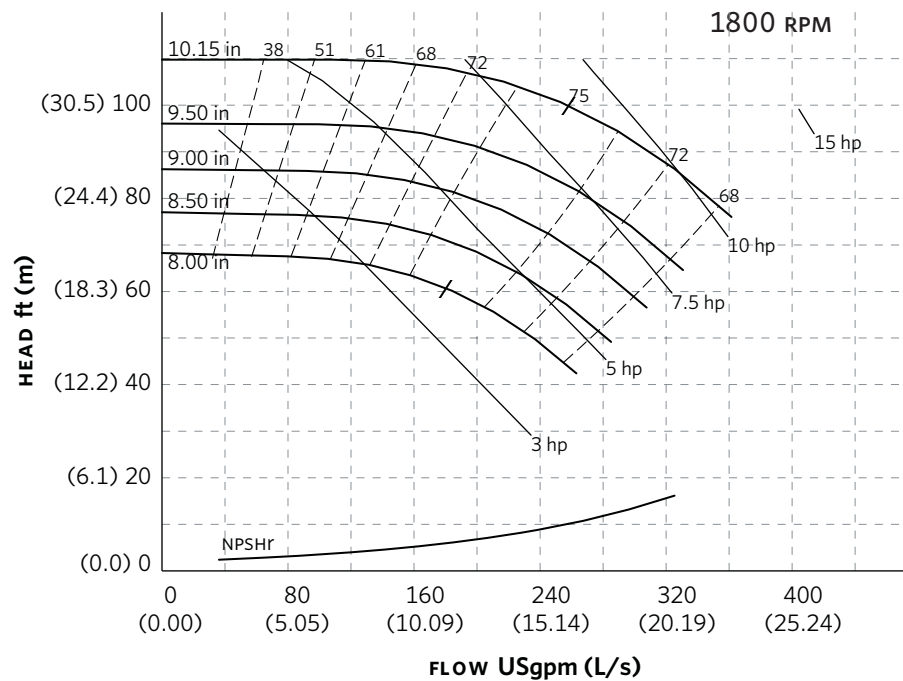
**Size**  
3 × 2 × 10

**RPM**  
3600

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 FR 365 MAX.  
4280 FR 326 MAX.

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
P58-2-0-1800

**Series**  
4030  
4280

**Size**  
3 × 2 × 10

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 3 × 2 × 13 | SUBMITTAL

File No: 42.791  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.791  
Date: DECEMBER 15, 2010

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) Lugged  
 Discharge: 2" (50mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

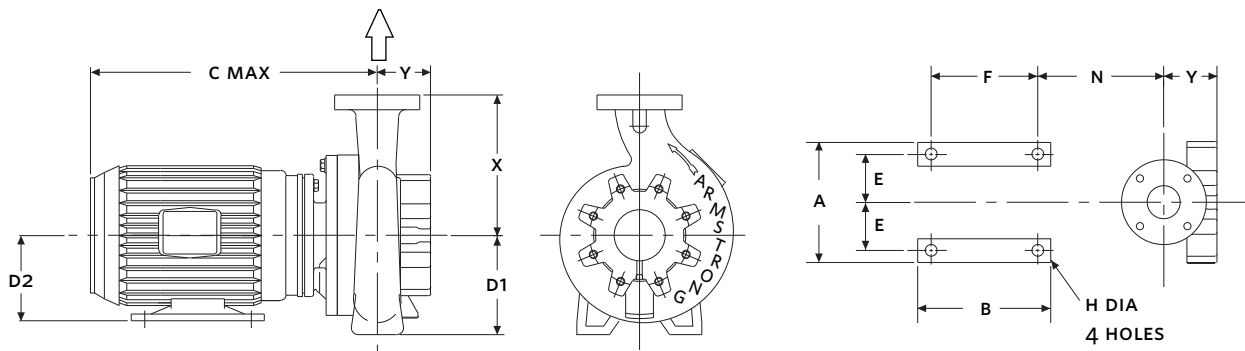
MOTOR	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME					ODP	TEFC							ODP	TEFC
213JP	—	3	10.50 (267)	7.00 (178)	22.00 (559)	23.00 (584)	10.00 (254)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	274 (124.4)	290 (131.7)
215JP	10	—	10.50 (267)	8.50 (216)	23.00 (584)	24.00 (610)	10.00 (254)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	298 (135.3)	308 (139.8)
254JM	15	—	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	10.00 (254)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	343 (155.7)	393 (178.4)
256JM	20	—	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	10.00 (254)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	378 (171.6)	448 (203.4)
284JP	25	—	13.88 (353)	12.25 (311)	26.88 (683)	26.00 (660)	10.00 (254)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.88 (327)	393 (178.4)	483 (219.3)

**PUMP DIMENSIONS**

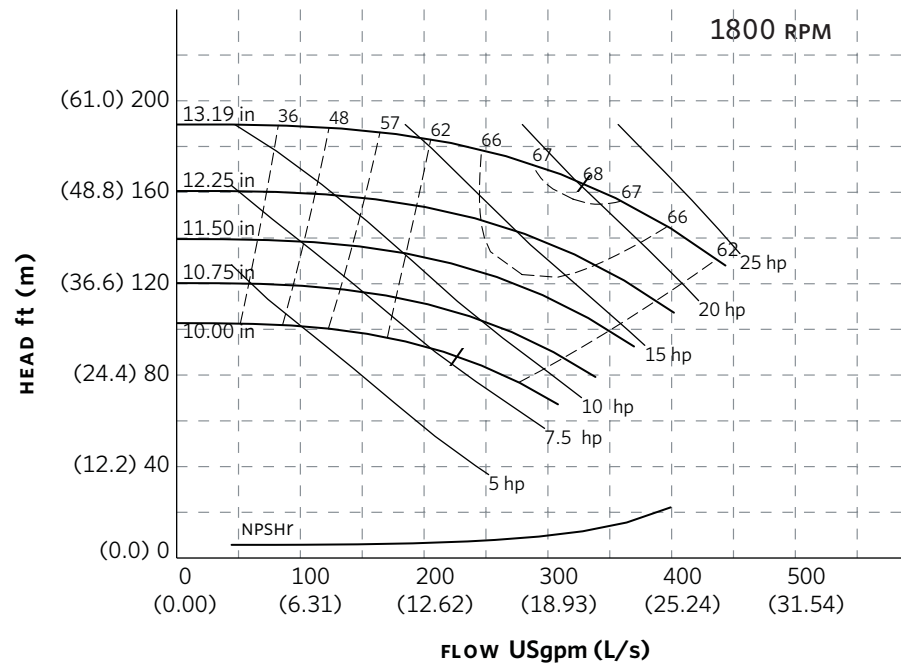
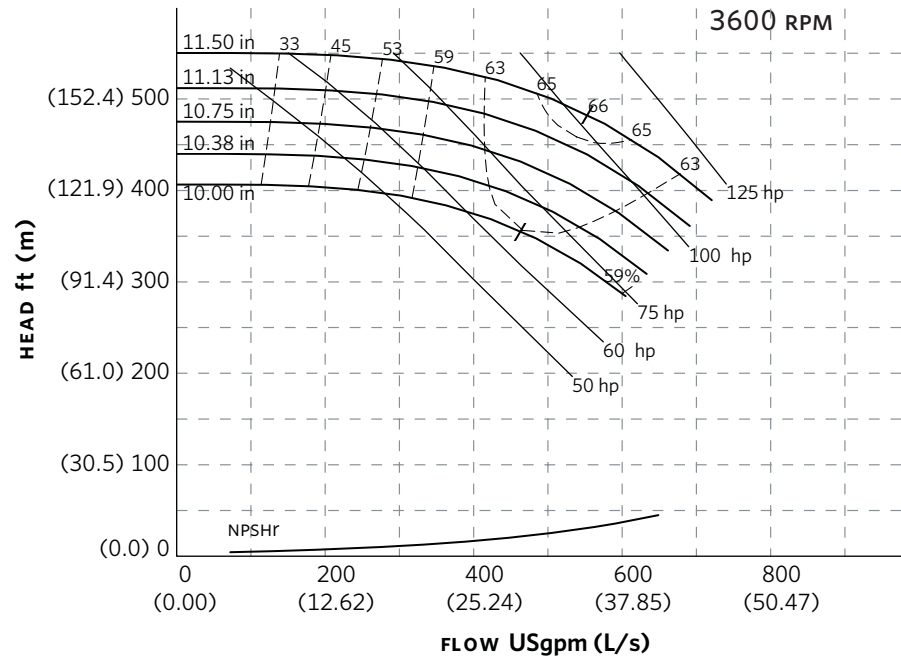
inches (mm)

X	Y
11.50 (292)	4.00 (102)

\*Assembly weight combines pump and motor.



## SERIES 4280 PERFORMANCE CURVES



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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 3 × 3 × 5 | SUBMITTAL

File No: 42.52  
Date: SEPTEMBER 10 2012  
Supersedes: 42.52  
Date: DECEMBER 15, 2010

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) Flanged  
Discharge: 3"(75mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

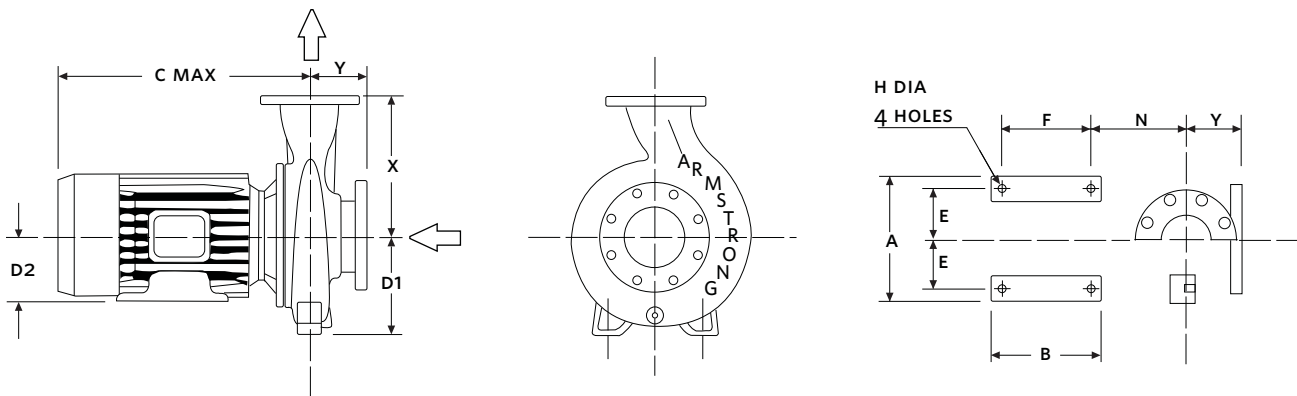
MOTOR FRAME	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
					ODP	TEFC							ODP	TEFC
56C	—	0.25 – 0.75	7.00 (178)	5.00 (127)	11.74 (298)	11.80 (301)	5.63 (143)	3.50 (89)	2.75 (70)	4.00 (102)	0.34 (9)	6.63 (168)	125 (56.8)	135 (61.3)
143JM	1.5	—	7.00 (178)	5.00 (127)	15.43 (392)	16.40 (417)	5.63 (143)	3.50 (89)	2.75 (70)	4.00 (102)	0.34 (9)	6.63 (168)	130 (59.0)	135 (61.3)
145JM	2	—	7.00 (178)	6.00 (152)	16.31 (414)	17.30 (440)	5.63 (143)	3.50 (89)	2.75 (70)	5.00 (127)	0.34 (9)	6.63 (168)	130 (59.0)	135 (61.3)
182JM	3	—	9.00 (229)	5.75 (146)	17.68 (449)	18.10 (459)	5.63 (143)	4.50 (114)	3.75 (95)	4.50 (114)	0.41 (10)	7.38 (187)	135 (61.3)	155 (70.4)
184JM	5	—	9.00 (229)	6.75 (171)	18.06 (459)	18.10 (460)	5.63 (143)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	7.38 (187)	165 (74.9)	165 (74.9)

**PUMP DIMENSIONS**

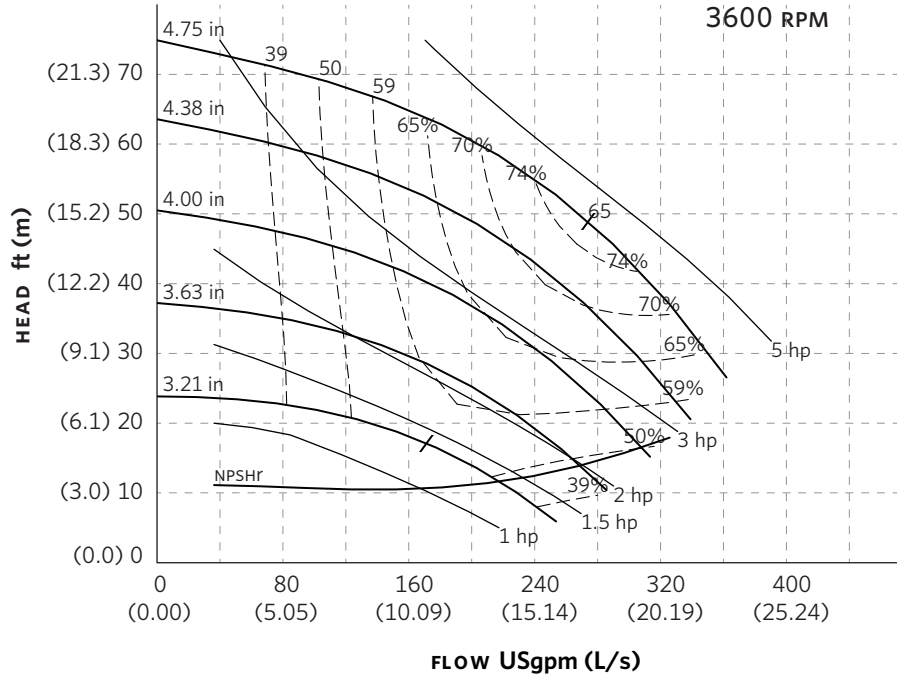
inches (mm)

X	Y
7.88 (200)	4.00 (102)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT530-0-0-3600

**Series**  
4280

**Size**  
3 × 3 × 5

**RPM**  
3600

---

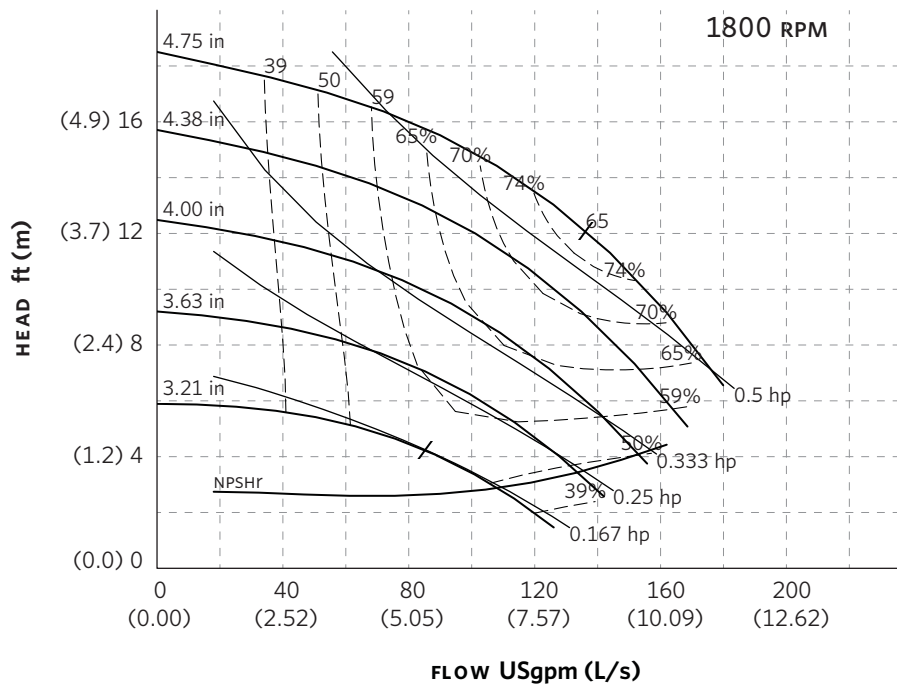
BHP based on shown Fluid's sp. gr.

---

**Availability**  
4280 all ratings

---

Performance guaranteed only at operating point indicated.  
 Curve shown for clear, cold water - SP. GR. 1.0000



**Curve number**  
PT530-0-0-1800

**Series**  
4280

**Size**  
3 × 3 × 5

**RPM**  
1800

---

BHP based on shown Fluid's sp. gr.

---

**Availability**  
4280 all ratings

---

Performance guaranteed only at operating point indicated.  
 Curve shown for clear, cold water - SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 4 × 3 × 8 | SUBMITTAL

File No: 42.63  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.63  
Date: DECEMBER 15, 2010

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

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

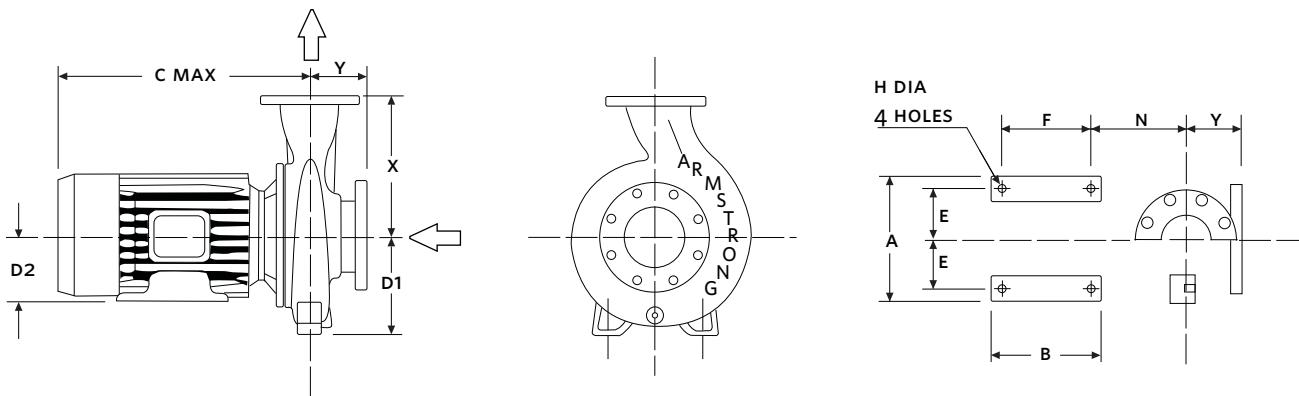
MOTOR	HP @ RPM (ODP & TEFC)			MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME						ODP	TEFC							ODP	TEFC
145JM	—	2	1	7.00 (178)	6.00 (152)	14.00 (356)	16.00 (406)	6.63 (168)	3.50 (89)	2.75 (70)	5.00 (127)	0.35 (9)	6.63 (168)	136 (61.7)	141 (64.0)
182JM	—	3	1.5	9.00 (229)	5.75 (146)	15.00 (381)	17.00 (432)	6.63 (168)	4.50 (114)	3.75 (95)	4.50 (114)	0.41 (10)	7.38 (187)	167 (75.8)	169 (76.7)
184JM	—	5	—	9.00 (229)	6.75 (172)	16.00 (406)	18.00 (457)	6.63 (168)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	7.38 (187)	176 (79.9)	171 (77.6)
213JP	—	7.5	2	10.50 (267)	7.00 (178)	21.00 (533)	23.00 (584)	6.63 (168)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	201 (91.3)	211 (95.8)
215JP	15	—	—	10.50 (267)	8.50 (216)	23.00 (584)	25.00 (635)	6.63 (168)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	241 (109.4)	251 (114.0)
254JM	20	—	—	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	6.63 (168)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	261 (118.5)	326 (148.0)
256JM	25	—	—	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	6.63 (168)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	296 (134.4)	361 (163.9)
284JM	30	—	—	13.88 (353)	12.25 (311)	24.00 (610)	26.00 (660)	6.63 (168)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	9.75 (248)	331 (150.3)	401 (182.1)
286JM	40	—	—	13.88 (353)	13.75 (349)	26.00 (660)	27.00 (686)	6.63 (168)	7.00 (178)	5.50 (140)	11.00 (279)	0.53 (13)	9.75 (248)	421 (191.1)	511 (232.0)
324JM	50	—	—	15.88 (403)	13.75 (349)	26.00 (660)	29.00 (737)	6.63 (168)	8.00 (203)	6.25 (159)	10.50 (267)	0.66 (17)	10.25 (260)	521 (236.5)	631 (286.5)

**PUMP DIMENSIONS**

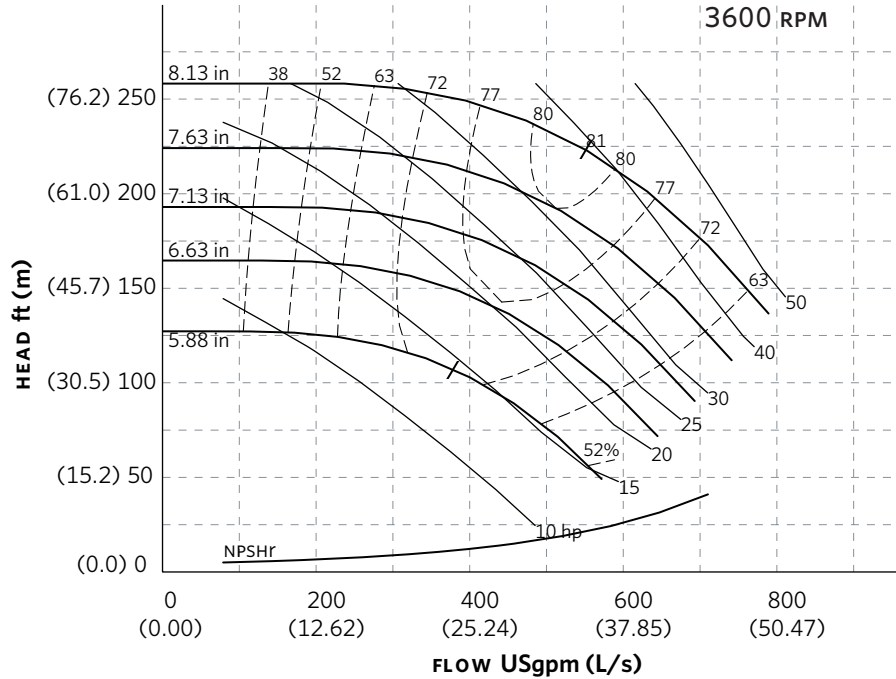
inches (mm)

X	Y
11.00 (279)	4.00 (102)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT80-1-0-3600

**Series**  
4030  
4280

**Size**  
4 × 3 × 8

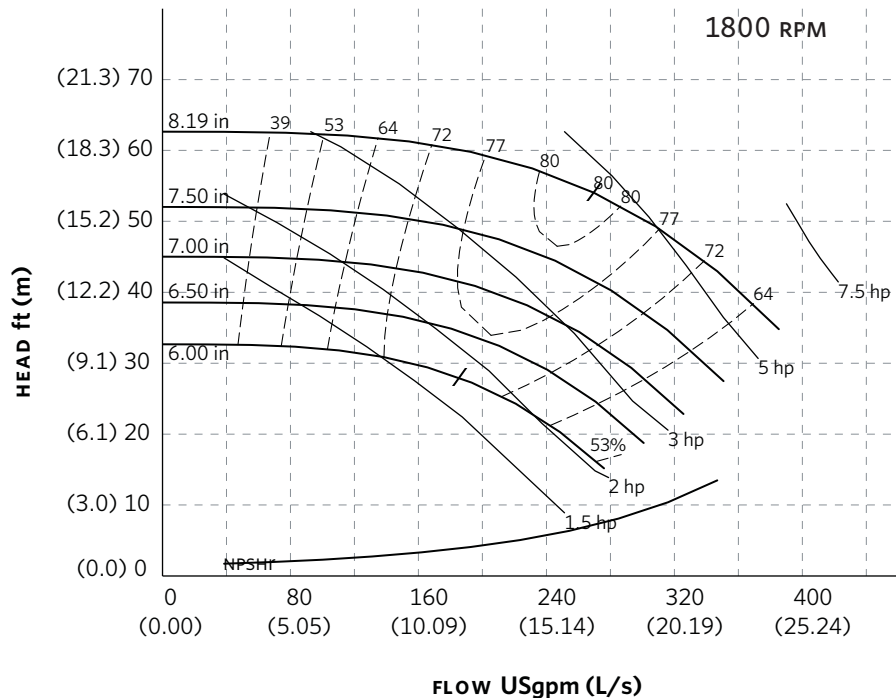
**RPM**  
3600

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT79-1-0-1800

**Series**  
4030  
4280

**Size**  
4 × 3 × 8

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 4 × 3 × 10 | SUBMITTAL

File No: 42.70  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.70  
Date: DECEMBER 15, 2010

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

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

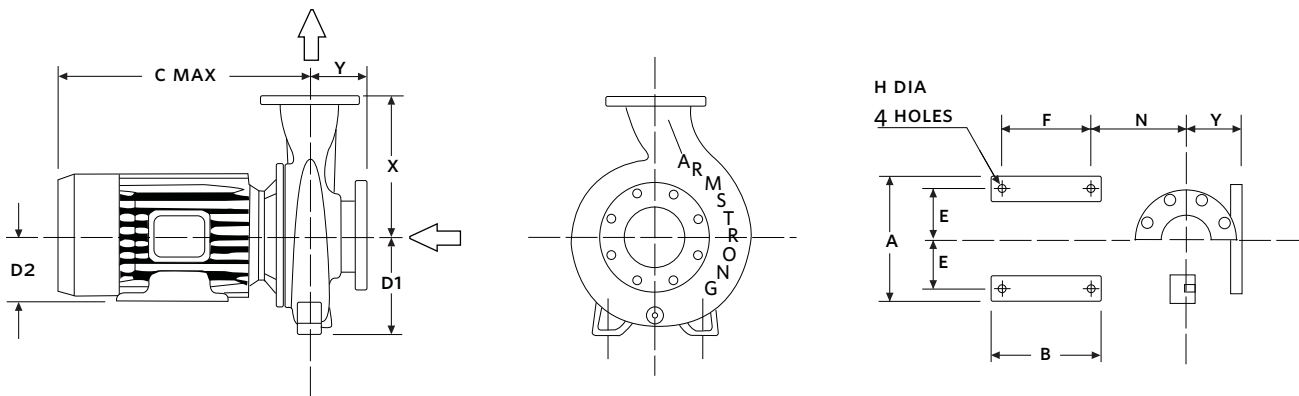
MOTOR	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME					ODP	TEFC							ODP	TEFC
182JM	—	1.5	9.00 (229)	5.75 (146)	15.00 (381)	17.00 (432)	8.25 (210)	4.50 (114)	3.75 (95)	4.50 (114)	0.41 (10)	7.38 (187)	192 (87.2)	194 (88.1)
184JM	5	—	9.00 (229)	6.75 (172)	16.00 (406)	18.00 (457)	8.25 (210)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	7.38 (187)	196 (89.0)	201 (91.3)
213JP	7.5	2 & 3	10.50 (267)	7.00 (178)	21.00 (533)	23.00 (584)	8.25 (210)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	226 (102.6)	236 (107.1)
215JP	10	5	10.50 (267)	8.50 (216)	23.00 (584)	25.00 (635)	8.25 (210)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	241 (109.4)	258 (117.1)
254JM	15	—	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	8.25 (210)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	286 (129.8)	336 (152.5)

**PUMP DIMENSIONS**

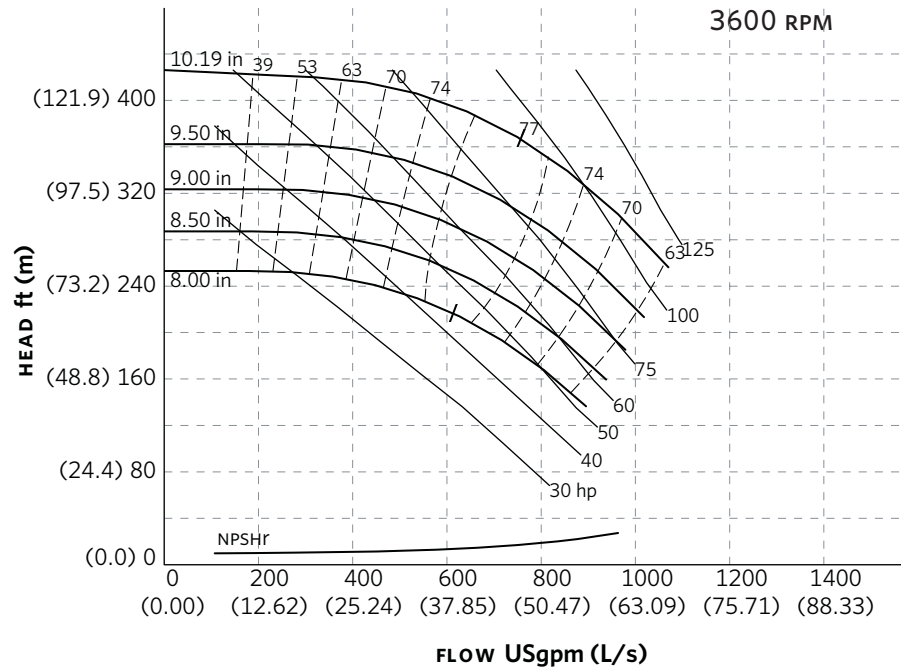
inches (mm)

X	Y
11.00 (279)	4.00 (102)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT75-1-0-3600

**Series**  
4030  
4280

**Size**  
4 × 3 × 10

**RPM**  
3600

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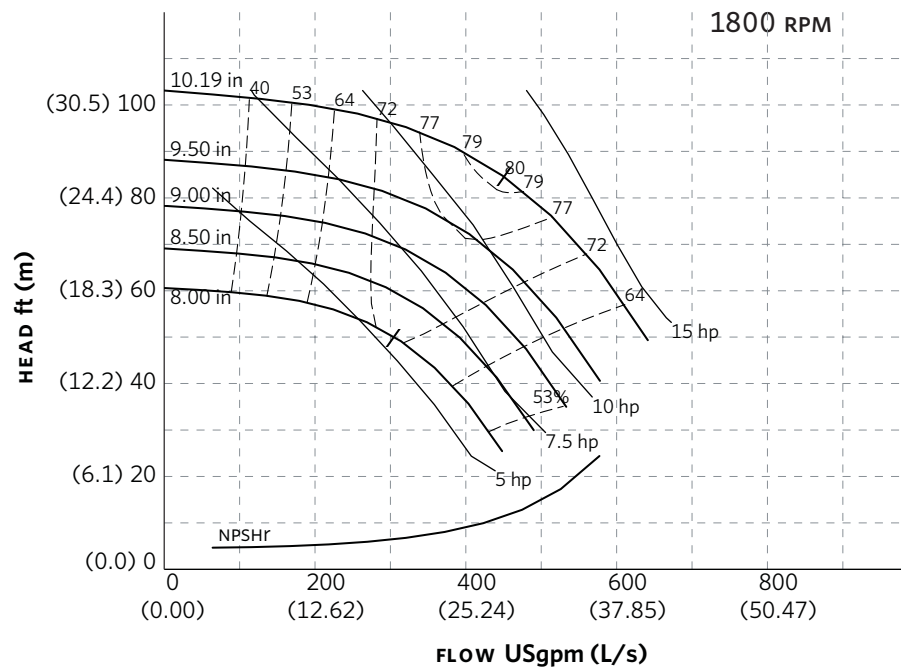
BHP based on shown  
Fluid's sp. gr.

---

**Availability**  
4030 FR 405 MAX.  
4280 all ratings

---

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT74-1-0-1800

**Series**  
4030  
4280

**Size**  
4 × 3 × 10

**RPM**  
1800

---

BHP based on shown  
Fluid's sp. gr.

---

**Availability**  
4030 all ratings  
4280 all ratings

---

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 4 × 3 × 11.5 | SUBMITTAL

File No: 42.75  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.75  
Date: DECEMBER 15, 2010

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

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

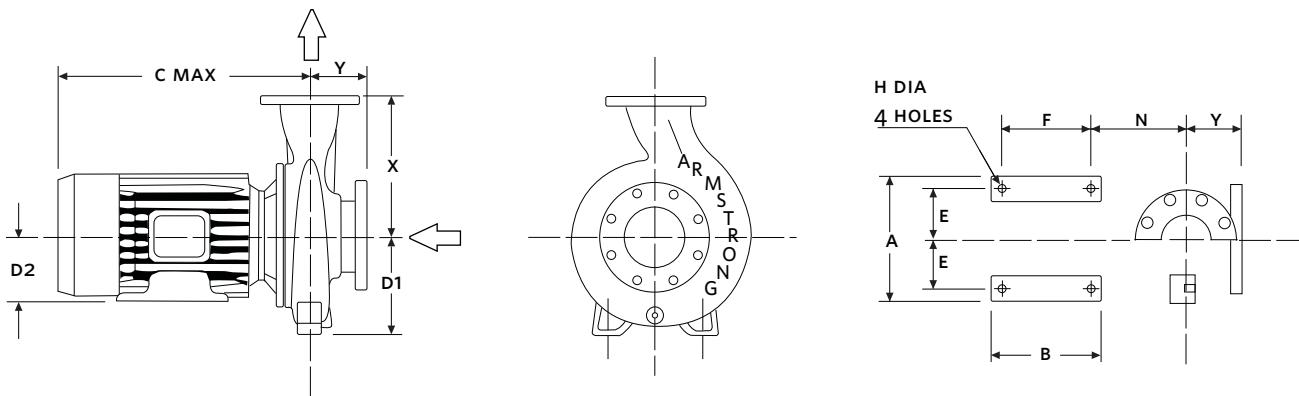
MOTOR	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME					ODP	TEFC							ODP	TEFC
213JP	7.5	2 & 3	9.63 (245)	6.50 (165)	20.75 (527)	23.75 (603)	8.25 (210)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	275 (124.9)	285 (129.4)
215JP	10	5	9.63 (245)	8.00 (203)	21.63 (549)	24.63 (626)	8.25 (210)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	290 (131.7)	307 (139.4)
254JM	15	7.5	11.50 (292)	9.50 (241)	22.00 (559)	25.38 (645)	8.25 (210)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	346 (157.1)	385 (174.8)
256JM	20	—	11.50 (292)	11.25 (286)	23.50 (597)	27.00 (686)	8.25 (210)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	370 (168.0)	440 (199.8)
284JP	25	—	14.00 (356)	11.25 (286)	26.13 (664)	29.63 (753)	8.25 (210)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.63 (321)	385 (174.8)	475 (215.7)

**PUMP DIMENSIONS**

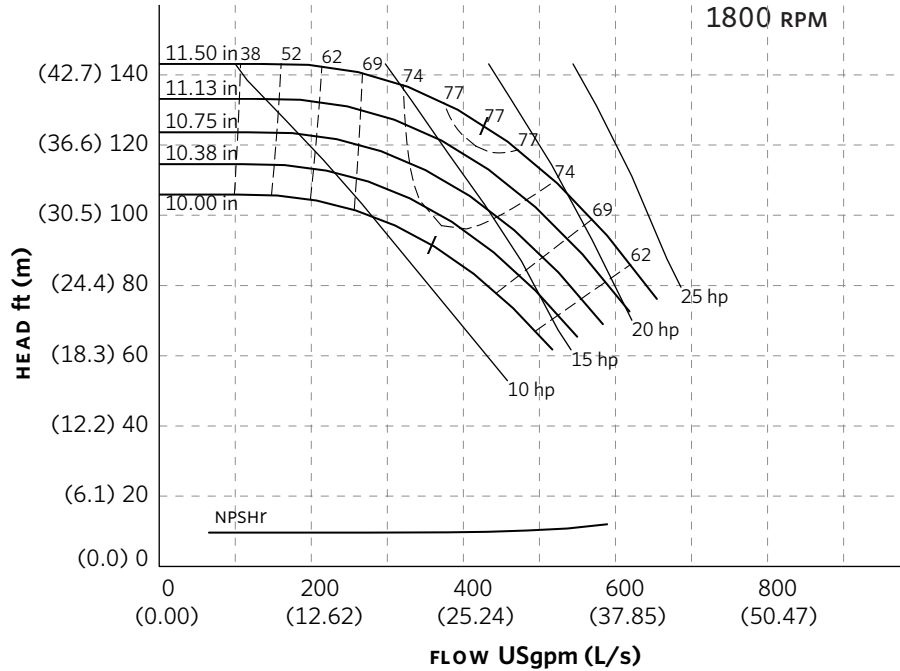
inches (mm)

X	Y
11.00 (279)	4.00 (102)

\*Assembly weight combines pump and motor.



## SERIES 4280 PERFORMANCE CURVES



**Curve number**  
PT76-1-0-1800

**Series**  
4030  
4280

**Size**  
4 × 3 × 11.5

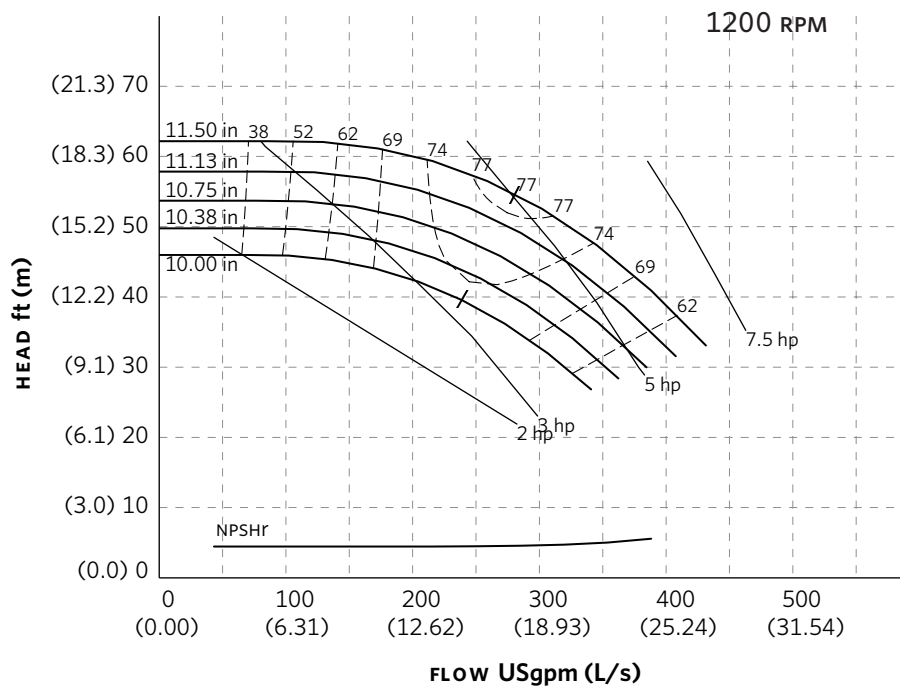
**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT76-1-0-1200

**Series**  
4030  
4280

**Size**  
4 × 3 × 11.5

**RPM**  
1200

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 4 × 3 × 13 | SUBMITTAL

File No: 42.792  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.792  
Date: DECEMBER 15, 2010

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) Lugged  
Discharge: 3" (75mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

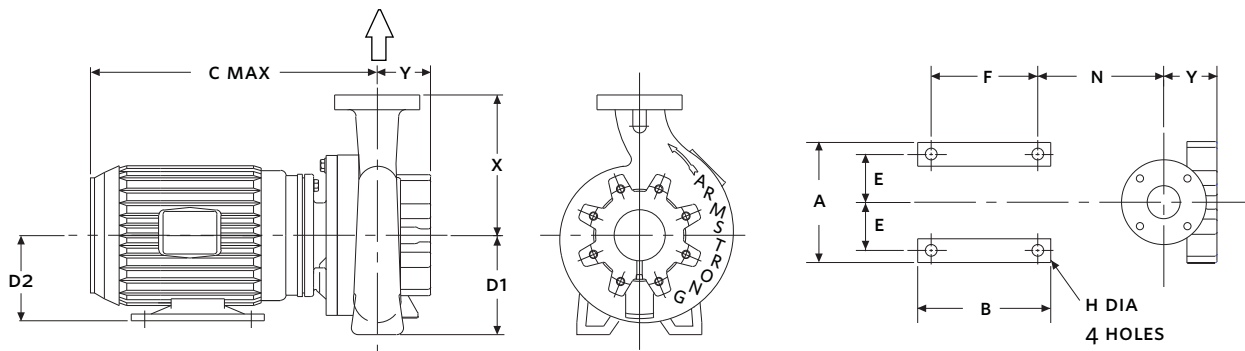
MOTOR	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME					ODP	TEFC							ODP	TEFC
213JP	—	3	10.50 (267)	7.00 (178)	22.00 (559)	23.00 (584)	10.00 (254)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	329 (149.4)	345 (156.6)
215JP	10	5	10.50 (267)	8.50 (216)	23.00 (584)	24.00 (610)	10.00 (254)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	353 (160.3)	370 (168.0)
254JM	15	7.5	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	10.00 (254)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	409 (185.7)	448 (203.4)
256JM	20	10	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	10.00 (254)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	443 (201.1)	503 (228.4)
284JP	25	—	13.88 (353)	12.25 (311)	26.88 (683)	26.00 (660)	10.00 (254)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.88 (327)	448 (203.4)	538 (244.3)
286JP	30	—	13.88 (353)	13.75 (349)	28.88 (734)	29.88 (759)	10.00 (254)	7.00 (178)	5.50 (140)	11.00 (279)	0.53 (13)	12.88 (327)	518 (235.2)	548 (248.8)
324JP	40	—	15.88 (403)	13.75 (349)	28.88 (734)	30.88 (784)	10.00 (254)	8.00 (203)	6.25 (159)	10.50 (267)	0.66 (17)	13.13 (334)	658 (298.7)	768 (348.7)

**PUMP DIMENSIONS**

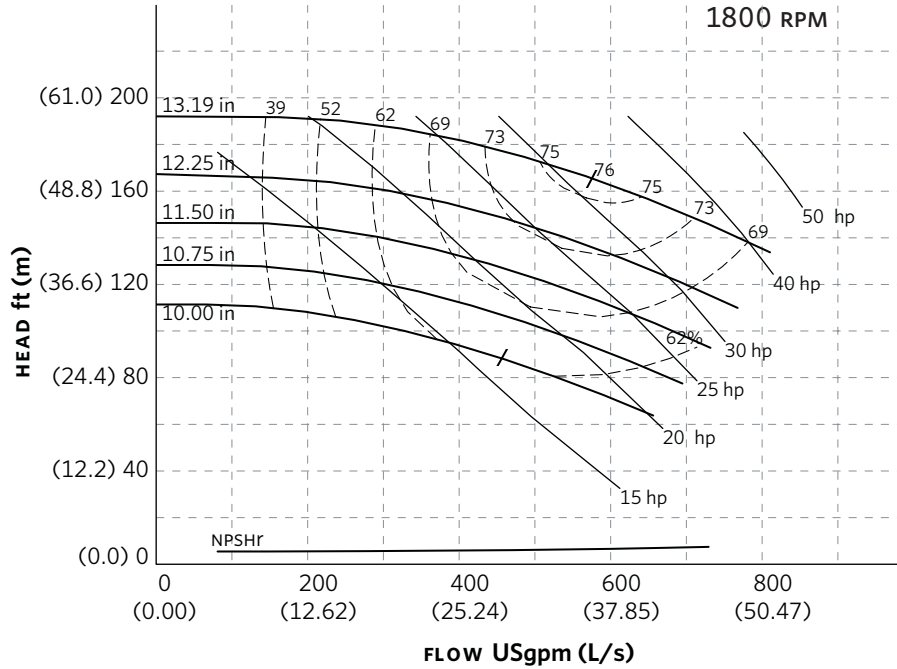
inches (mm)

X	Y
12.50 (318)	4.00 (102)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT77-0-0-1800

**Series**  
4030  
4280

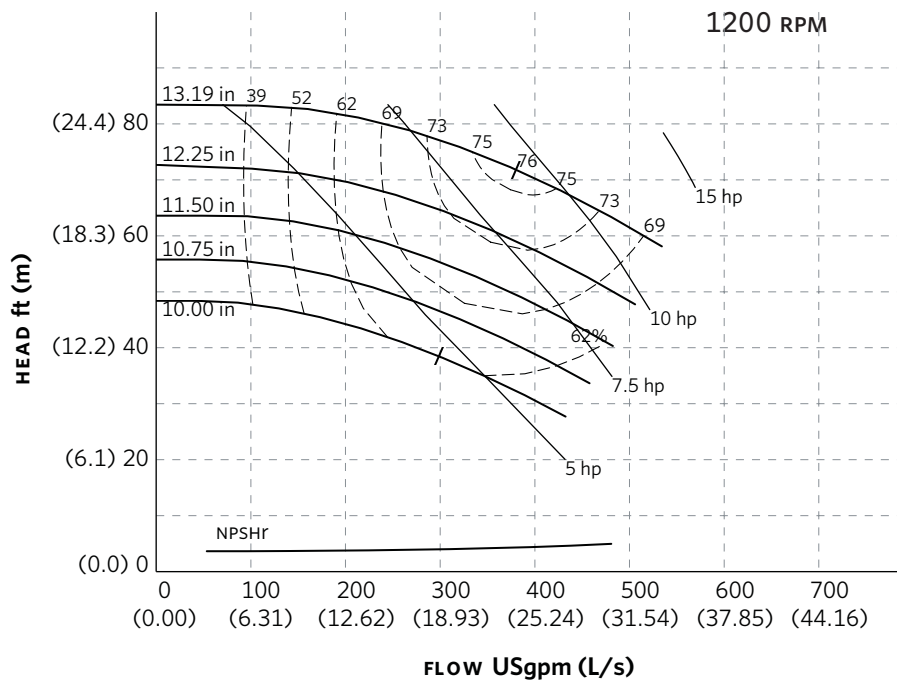
**Size**  
4 × 3 × 13

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT77-0-0-1200

**Series**  
4030  
4280

**Size**  
4 × 3 × 13

**RPM**  
1200

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 5 × 4 × 8 | SUBMITTAL

File No: 42.64  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.64  
Date: DECEMBER 15, 2010

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: 5" (125mm) Lugged  
 Discharge: 4" (100mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

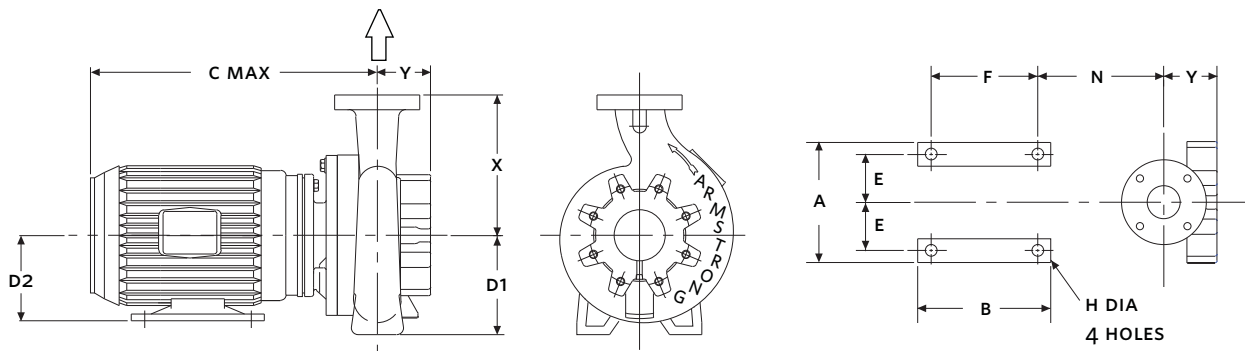
FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Temperature</b>	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

MOTOR	HP @ RPM (ODP & TEFC)			MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME						ODP	TEFC							ODP	TEFC
145JM	—	—	1	7.00 (178)	6.00 (152)	14.00 (356)	16.00 (406)	7.63 (194)	3.50 (89)	2.75 (70)	5.00 (127)	0.35 (9)	6.63 (168)	153 (69.5)	158 (71.7)
182JM	—	3	1.5	9.00 (229)	5.75 (146)	15.00 (381)	17.00 (432)	7.63 (194)	4.50 (114)	3.75 (95)	4.50 (114)	0.41 (10)	7.38 (187)	184 (83.5)	186 (84.4)
184JM	—	5	—	9.00 (229)	6.75 (172)	16.00 (406)	18.00 (457)	7.63 (194)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	7.38 (187)	193 (87.6)	188 (85.4)
213JP	—	7.5	2 & 3	10.50 (267)	7.00 (178)	21.00 (533)	23.00 (584)	7.63 (194)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	218 (99.0)	228 (103.5)
215JP	—	10	5	10.50 (267)	8.50 (216)	23.00 (584)	25.00 (635)	7.63 (194)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	233 (105.8)	250 (113.5)
254JM	—	15	—	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	7.63 (194)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	278 (126.2)	328 (148.9)
256JM	25	—	—	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	7.63 (194)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	313 (142.1)	378 (171.6)
284JM	30	—	—	13.88 (353)	12.25 (311)	24.00 (610)	26.00 (660)	7.63 (194)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	9.75 (248)	348 (158.0)	418 (189.8)
286JM	40	—	—	13.88 (353)	13.75 (349)	26.00 (660)	27.00 (686)	7.63 (194)	7.00 (178)	5.50 (140)	11.00 (279)	0.53 (13)	9.75 (248)	438 (198.9)	528 (239.7)
324JM	50	—	—	15.88 (403)	13.75 (349)	26.00 (660)	29.00 (737)	7.63 (194)	8.00 (203)	6.25 (159)	10.50 (267)	0.66 (17)	10.25 (260)	538 (244.3)	648 (294.2)
326JM	60	—	—	15.88 (403)	15.25 (387)	28.00 (711)	30.00 (762)	7.63 (194)	8.00 (203)	6.25 (159)	12.00 (305)	0.66 (17)	10.25 (260)	578 (262.4)	708 (321.4)

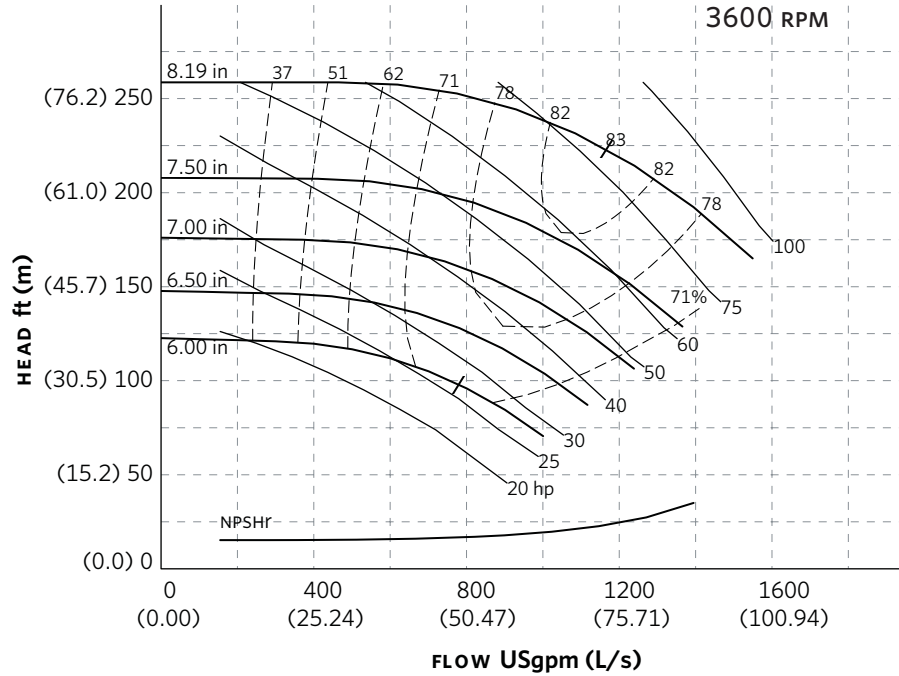
**PUMP DIMENSIONS**  
inches (mm)

X	Y
11.00 (279)	4.00 (102)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT93-1-0-3600

**Series**  
4030  
4280

**Size**  
5 × 4 × 8

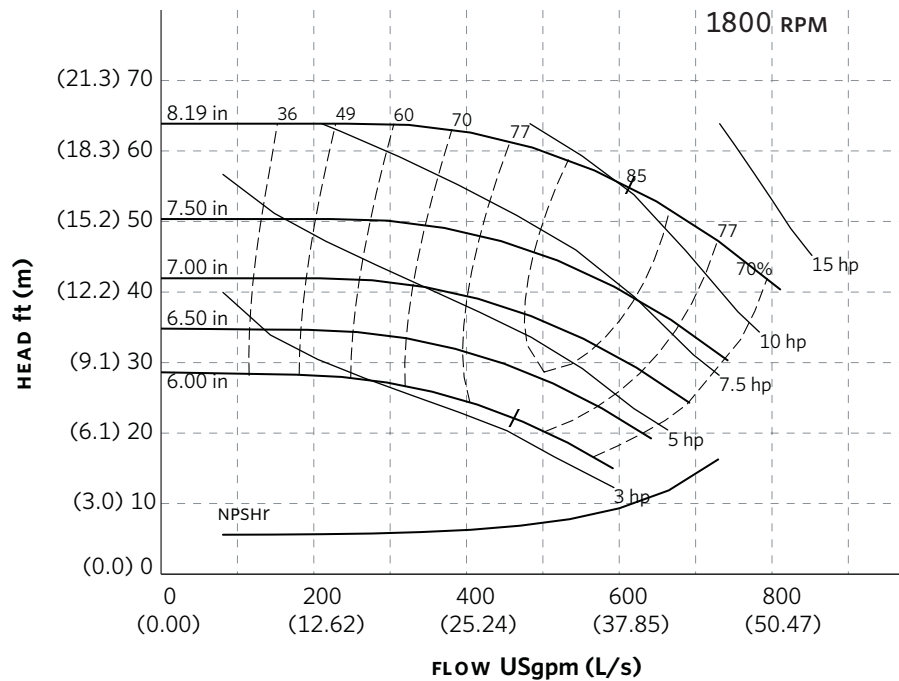
**RPM**  
3600

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 FR 326 MAX.

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT92-1-0-1800

**Series**  
4030  
4280

**Size**  
5 × 4 × 8

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

**TORONTO**

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 5 × 4 × 10 | SUBMITTAL

File No: 42.71  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.71  
Date: DECEMBER 15, 2010

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: 5" (125mm) Lugged  
 Discharge: 4" (100mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

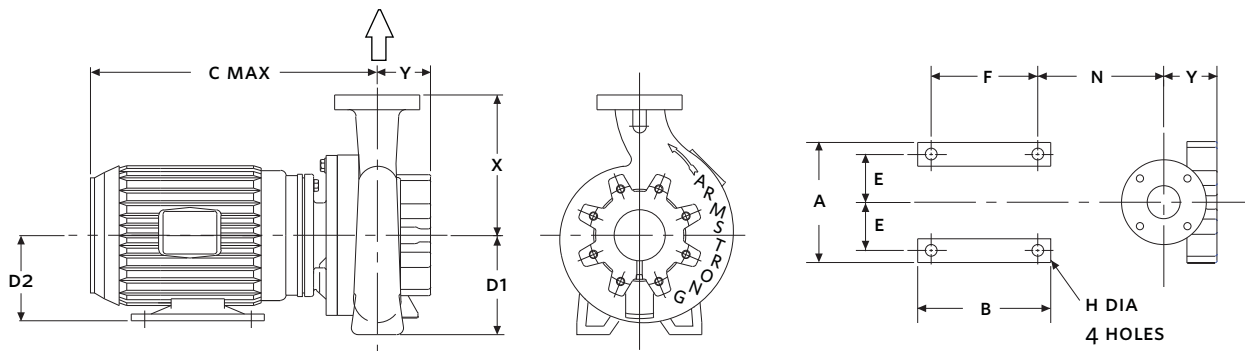
FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Temperature</b>	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

MOTOR	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME					ODP	TEFC							ODP	TEFC
213JP	7.5	2 & 3	10.50 (267)	7.00 (178)	21.00 (533)	23.00 (584)	10.00 (254)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	289 (131.2)	299 (135.7)
215JP	10	5	10.50 (267)	8.50 (216)	23.00 (584)	25.00 (635)	10.00 (254)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	304 (138.0)	314 (142.6)
254JM	15	7.5	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	10.00 (254)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	360 (163.4)	371 (168.4)
256JM	20	—	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	10.00 (254)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	384 (174.3)	454 (206.1)
284JP	25	—	13.88 (353)	12.25 (311)	27.00 (686)	29.00 (737)	10.00 (254)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.63 (321)	399 (181.1)	489 (222.0)

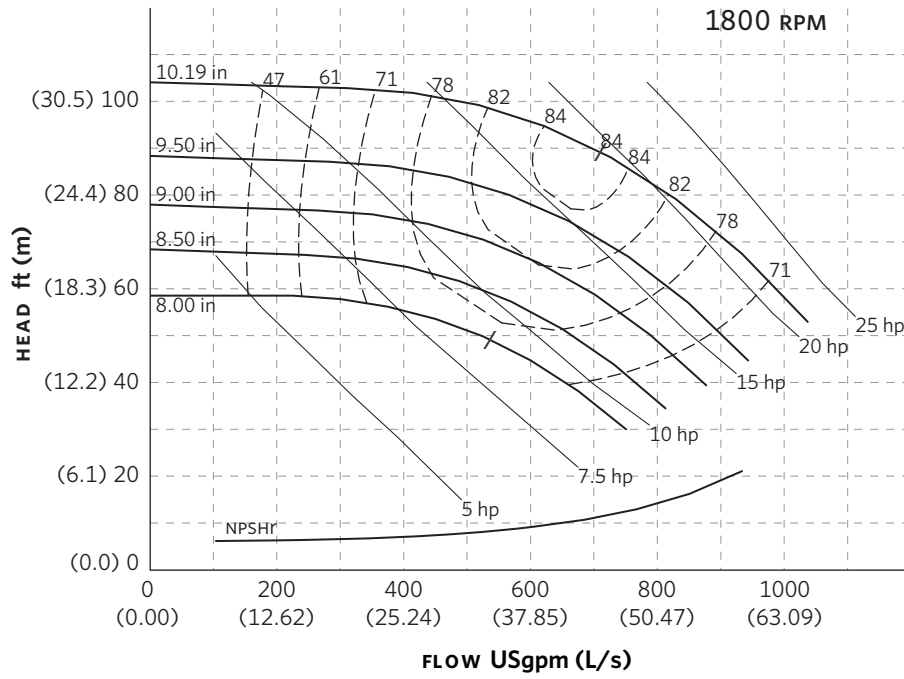
**PUMP DIMENSIONS**  
inches (mm)

X	Y
12.50 (317)	4.00 (102)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT90-1-0-1800

**Series**  
4030  
4280

**Size**  
5 × 4 × 10

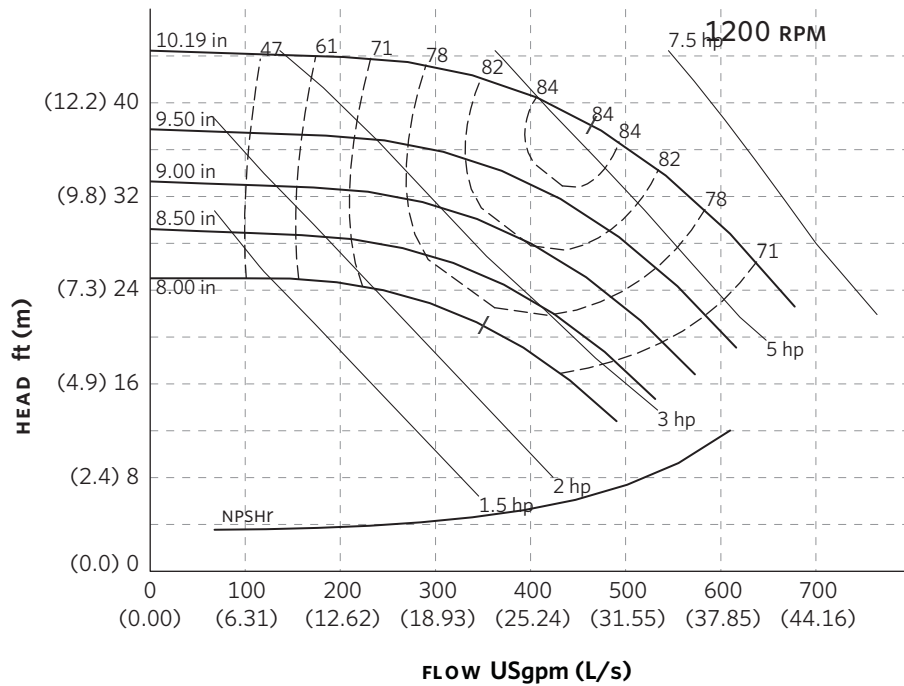
**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT90-1-0-1200

**Series**  
4030  
4280

**Size**  
5 × 4 × 10

**RPM**  
1200

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 5 × 4 × 11.5 | SUBMITTAL

File No: 42.75  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.75  
Date: DECEMBER 15, 2010

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: 5" (125mm) Flanged  
Discharge: 4" (100mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

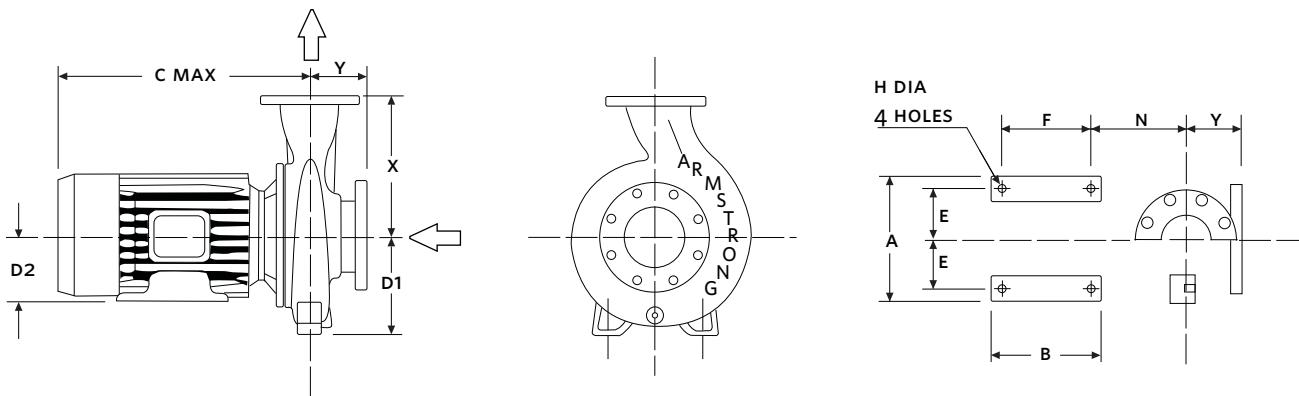
MOTOR	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME					ODP	TEFC							ODP	TEFC
213JP	—	3	9.63 (245)	6.50 (165)	20.75 (527)	23.75 (603)	10.00 (254)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	291 (132.1)	307 (139.4)
215JP	10	5	9.63 (245)	8.00 (203)	21.63 (549)	24.63 (626)	10.00 (254)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	315 (143.0)	332 (150.7)
254JM	15	7.5	11.50 (292)	9.50 (241)	22.00 (559)	25.38 (645)	10.00 (254)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	371 (168.4)	410 (186.1)
256JM	20	—	11.50 (292)	11.25 (286)	23.50 (597)	27.00 (686)	10.00 (254)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	395 (179.3)	465 (211.1)
284JP	25	—	14.00 (356)	11.25 (286)	26.13 (664)	29.63 (753)	10.00 (254)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.63 (321)	410 (186.1)	500 (227.0)
286JP	30	—	14.00 (356)	12.63 (321)	28.13 (715)	31.63 (803)	10.00 (254)	7.00 (178)	5.50 (140)	11.00 (279)	0.53 (13)	12.63 (321)	480 (217.9)	510 (231.5)

**PUMP DIMENSIONS**

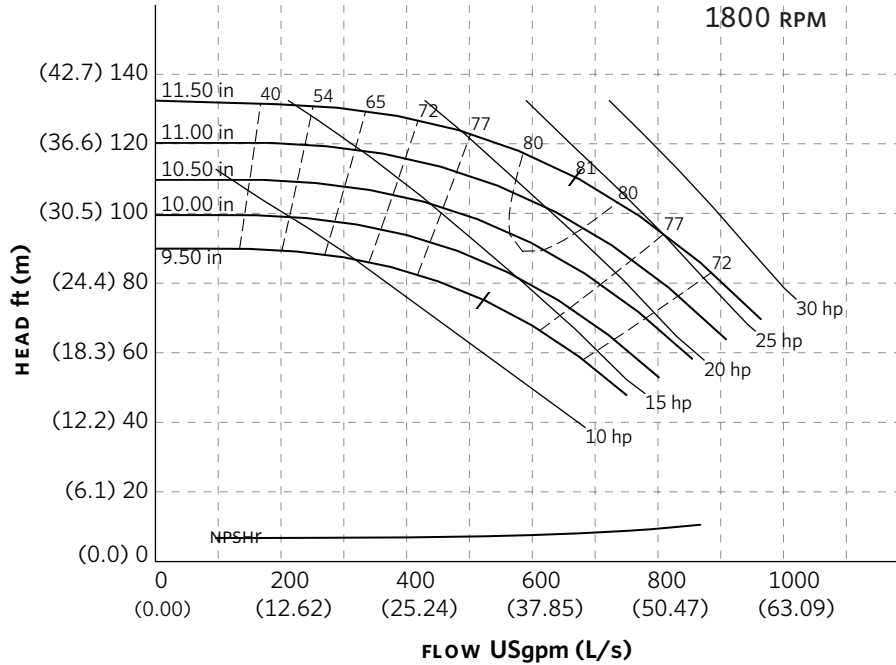
inches (mm)

X	Y
12.88 (327)	4.00 (102)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT91-1-0-1800

**Series**  
4030  
4280

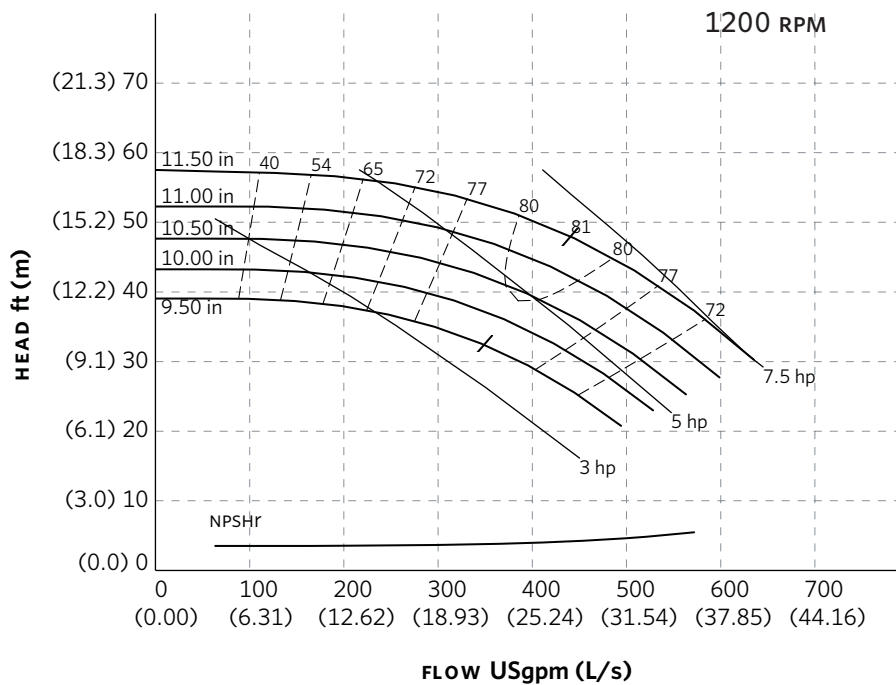
**Size**  
5 × 4 × 11.5

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT91-1-0-1200

**Series**  
4030  
4280

**Size**  
5 × 4 × 11.5

**RPM**  
1200

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 6 × 4 × 8 | SUBMITTAL

File No: 42.65  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.65  
Date: DECEMBER 15, 2010

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: 6" (150mm) Lugged  
 Discharge: 4" (100mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

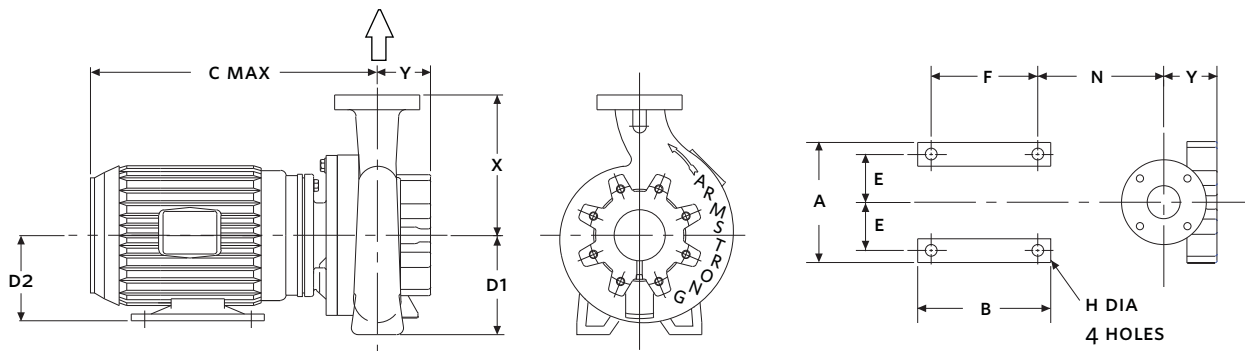
FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Temperature</b>	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

MOTOR	HP @ RPM (ODP & TEFC)			MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	3600	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME						ODP	TEFC							ODP	TEFC
145JM	—	—	1	7.00 (178)	6.00 (152)	14.00 (356)	16.00 (406)	7.63 (194)	3.50 (89)	2.75 (70)	5.00 (127)	0.35 (9)	6.63 (168)	153 (69.5)	158 (71.7)
182JM	—	3	1.5	9.00 (229)	5.75 (146)	15.00 (381)	17.00 (432)	7.63 (194)	4.50 (114)	3.75 (95)	4.50 (114)	0.41 (10)	7.38 (187)	184 (83.5)	186 (84.4)
184JM	—	5	—	9.00 (229)	6.75 (172)	16.00 (406)	18.00 (457)	7.63 (194)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	7.38 (187)	193 (87.6)	188 (85.4)
213JP	—	7.5	2 & 3	10.50 (267)	7.00 (178)	21.00 (533)	23.00 (584)	7.63 (194)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	218 (99.0)	228 (103.5)
215JP	—	10	5	10.50 (267)	8.50 (216)	23.00 (584)	25.00 (635)	7.63 (194)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	233 (105.8)	243 (110.3)
254JM	—	15	—	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	7.63 (194)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	278 (126.2)	328 (148.9)
256JM	25	—	—	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	7.63 (194)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	313 (142.1)	378 (171.6)
284JM	30	—	—	13.88 (353)	12.25 (311)	24.00 (610)	26.00 (660)	7.63 (194)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	9.75 (248)	348 (158.0)	418 (189.8)
286JM	40	—	—	13.88 (353)	13.75 (349)	26.00 (660)	27.00 (686)	7.63 (194)	7.00 (178)	5.50 (140)	11.00 (279)	0.53 (13)	9.75 (248)	438 (198.9)	528 (239.7)
324JM	50	—	—	15.88 (403)	13.75 (349)	26.00 (660)	29.00 (737)	7.63 (194)	8.00 (203)	6.25 (159)	10.50 (267)	0.66 (17)	10.25 (260)	538 (244.3)	648 (294.2)
326JM	60	—	—	15.88 (403)	15.25 (387)	28.00 (711)	30.00 (762)	7.63 (194)	8.00 (203)	6.25 (159)	12.00 (305)	0.66 (17)	10.25 (260)	578 (262.4)	708 (321.4)

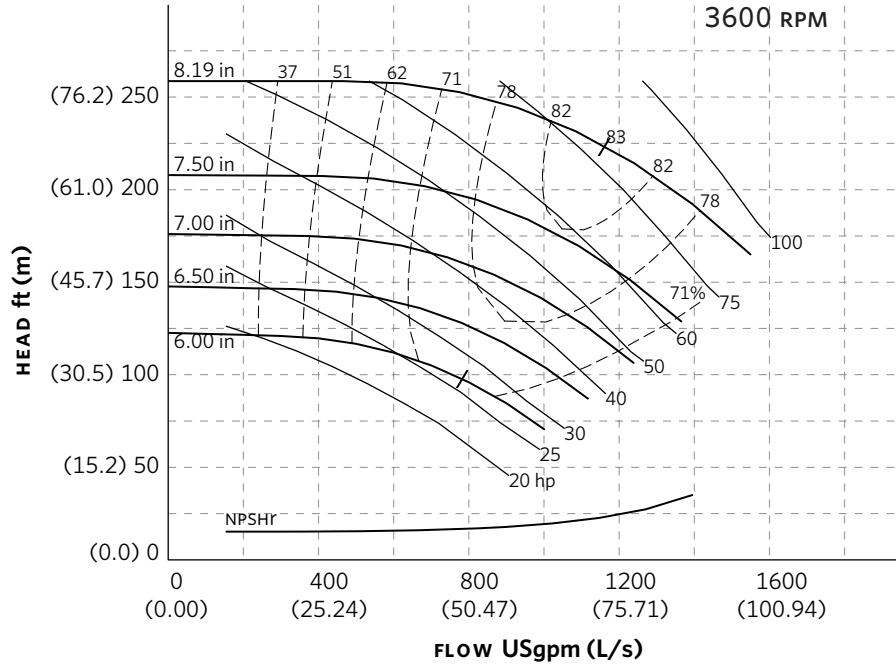
**PUMP DIMENSIONS**  
inches (mm)

X	Y
11.00 (279)	4.00 (102)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT100-1-0-3600

**Series**  
4030  
4280

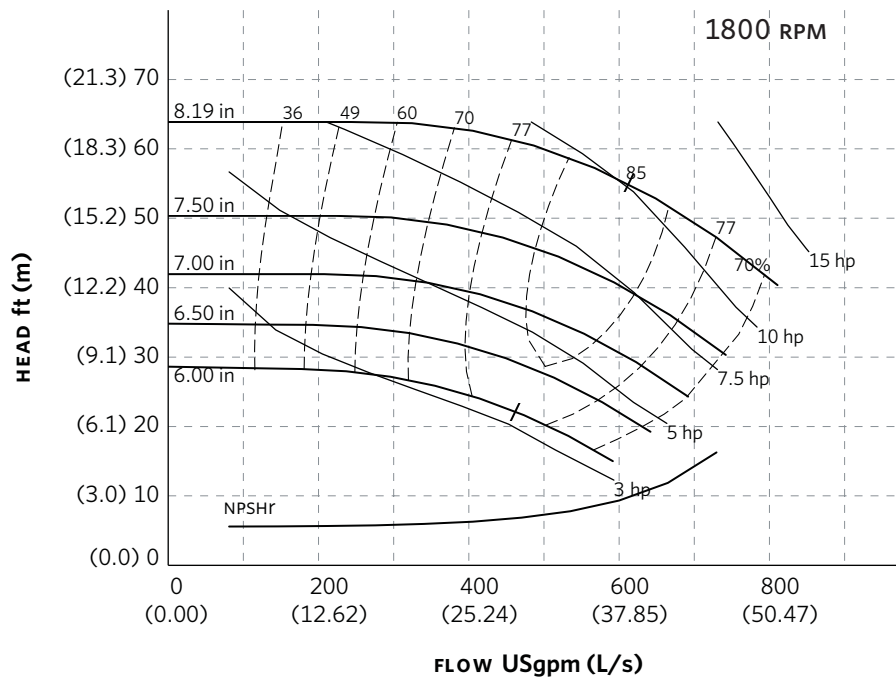
**Size**  
6 × 4 × 8

**RPM**  
3600

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 FR 365 MAX.  
4280 FR 326 MAX.

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT99-1-0-1800

**Series**  
4030  
4280

**Size**  
6 × 4 × 8

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 6 × 4 × 10 | SUBMITTAL

File No: 42.72  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.72  
Date: DECEMBER 15, 2010

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: 6" (150mm) Lugged  
 Discharge: 4" (100mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

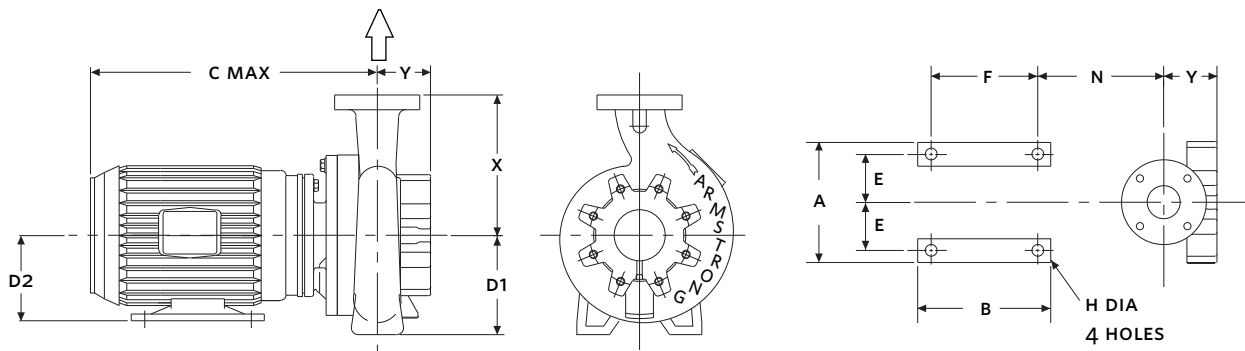
MOTOR	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME					ODP	TEFC							ODP	TEFC
213JP	7.5	2 & 3	10.50 (267)	7.00 (178)	21.00 (533)	23.00 (584)	10.00 (254)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	289 (131.2)	299 (135.7)
215JP	10	5	10.50 (267)	8.50 (216)	23.00 (584)	25.00 (635)	10.00 (254)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	304 (138.0)	314 (142.6)
254JM	15	7.5	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	10.00 (254)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	360 (163.4)	371 (168.4)
256JM	20	—	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	10.00 (254)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	384 (174.3)	454 (206.1)
284JP	25	—	13.88 (353)	12.25 (311)	27.00 (686)	29.00 (737)	10.00 (254)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.63 (321)	399 (181.1)	489 (222.0)

**PUMP DIMENSIONS**

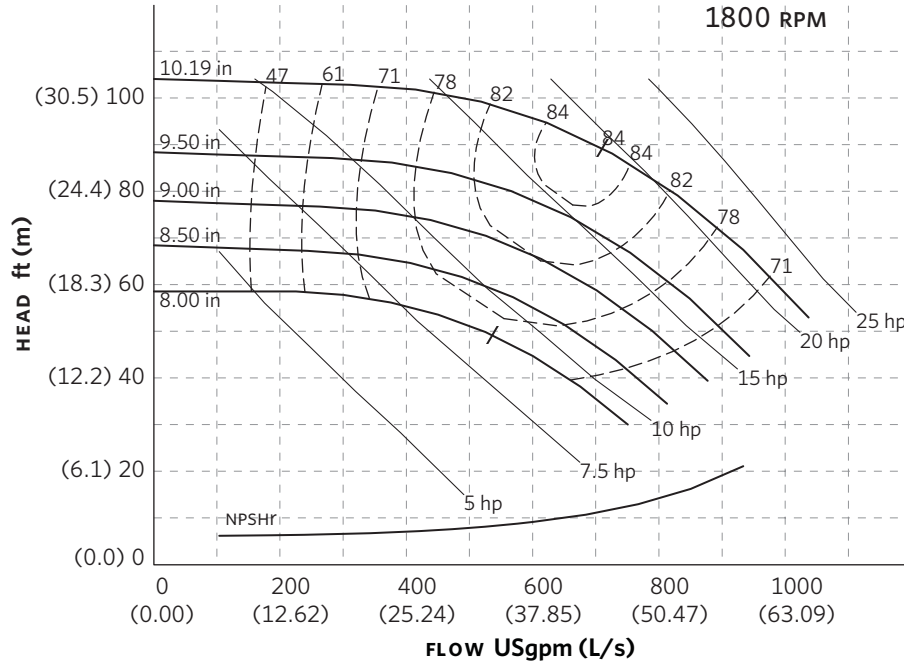
inches (mm)

X	Y
12.50 (317)	4.00 (102)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT96-1-0-1800

**Series**  
4030  
4280

**Size**  
6 × 4 × 10

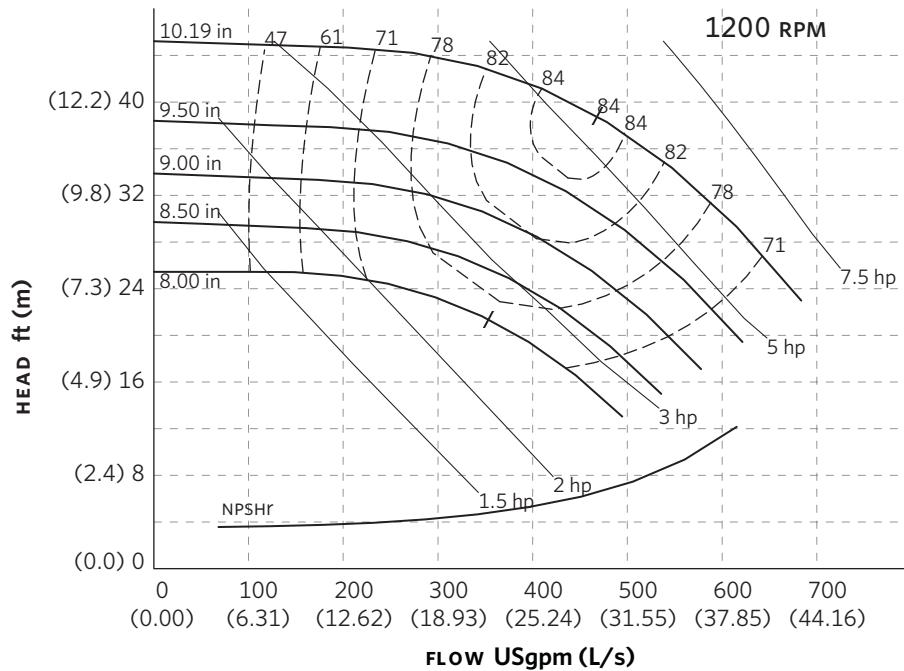
**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT96-1-0-1200

**Series**  
4030  
4280

**Size**  
6 × 4 × 10

**RPM**  
1200

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 6 × 4 × 13 | SUBMITTAL

File No: 42.793  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.793  
Date: DECEMBER 15, 2010

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: 6" (150mm) Lugged  
 Discharge: 4" (100mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

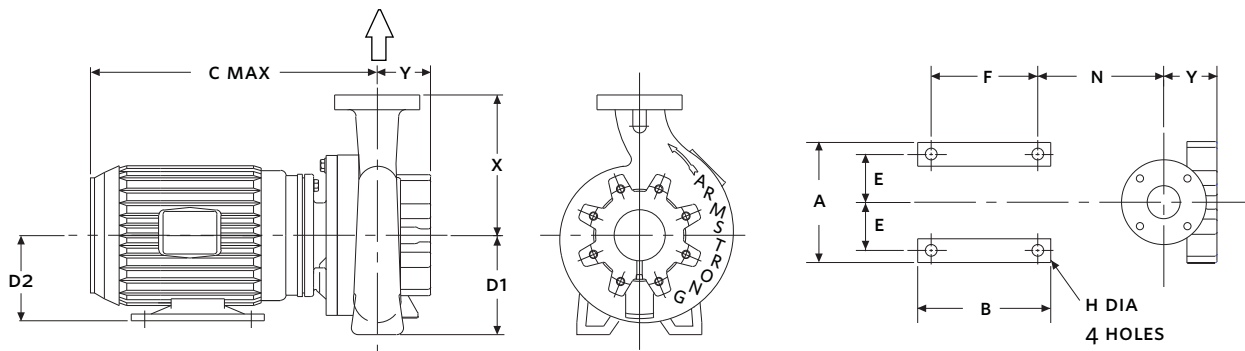
MOTOR FRAME	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
					ODP	TEFC							ODP	TEFC
254JM	—	7.5	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	10.00 (254)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	479 (217.5)	490 (222.5)
256JM	20	10	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	10.00 (254)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	513 (232.9)	573 (260.1)
284JP	25	15	13.88 (353)	12.25 (311)	26.88 (683)	28.88 (734)	10.00 (254)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.88 (327)	546 (247.9)	608 (276.0)
286JP	30	—	13.88 (353)	13.75 (349)	28.88 (734)	29.88 (759)	10.00 (254)	7.00 (178)	5.50 (140)	11.00 (279)	0.53 (13)	12.88 (327)	588 (267.0)	618 (280.6)
324JP	40	—	15.88 (403)	13.75 (349)	28.88 (734)	30.88 (784)	10.00 (254)	8.00 (203)	6.25 (159)	10.50 (267)	0.66 (17)	13.13 (334)	728 (330.5)	838 (380.5)
326JP	50	—	15.88 (403)	15.25 (387)	30.88 (784)	32.88 (835)	10.00 (254)	8.00 (203)	6.25 (159)	12.00 (305)	0.66 (17)	13.13 (334)	768 (348.7)	898 (407.7)

**PUMP DIMENSIONS**

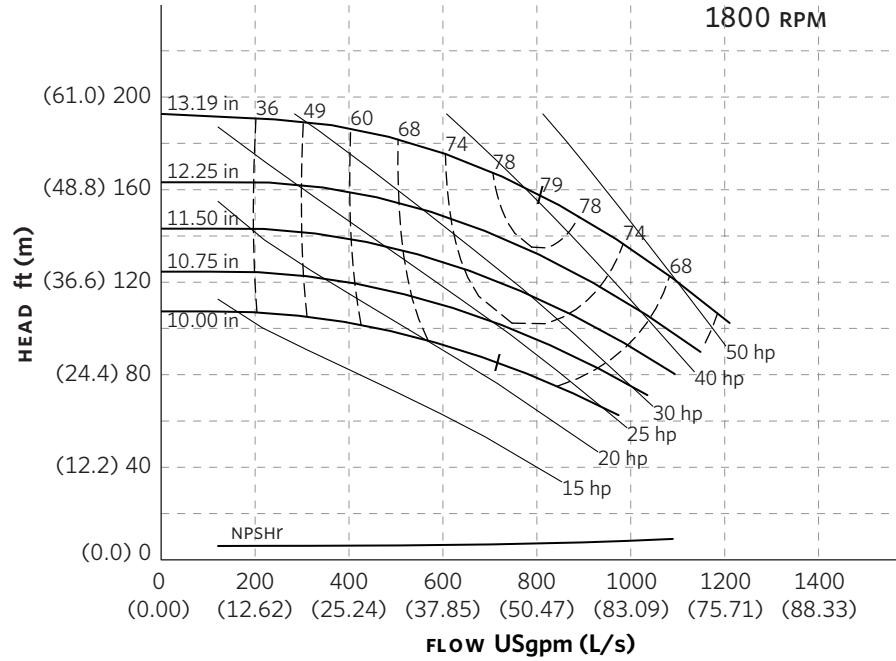
inches (mm)

X	Y
13.50 (343)	4.00 (102)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT98-3-0-1800

**Series**  
4030  
4280

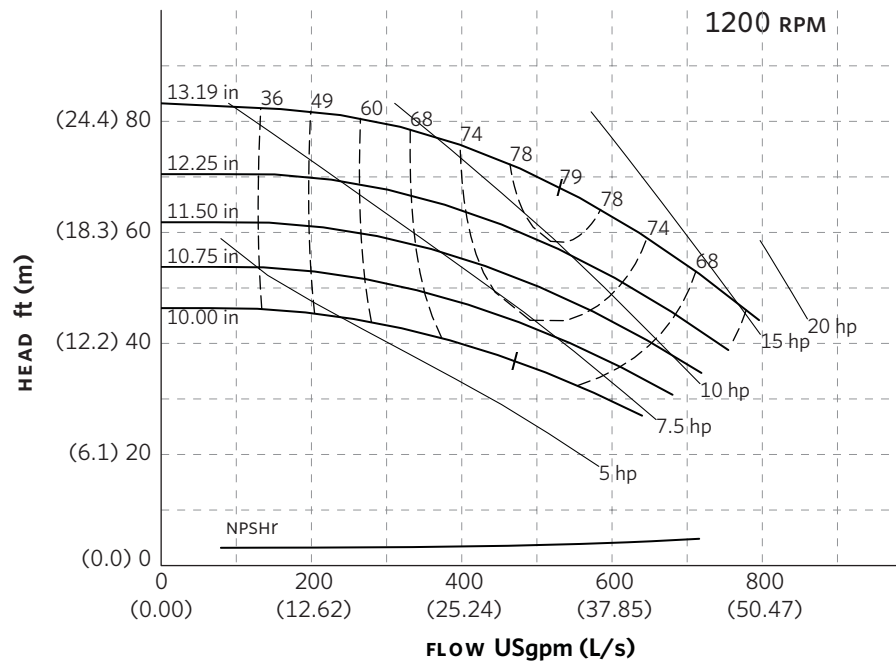
**Size**  
6 × 4 × 13

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT98-3-0-1200

**Series**  
4030  
4280

**Size**  
6 × 4 × 13

**RPM**  
1200

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 6 × 5 × 10 | SUBMITTAL

File No: 42.73  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.73  
Date: DECEMBER 15, 2010

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: 6" (150mm) Lugged  
 Discharge: 5" (125mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

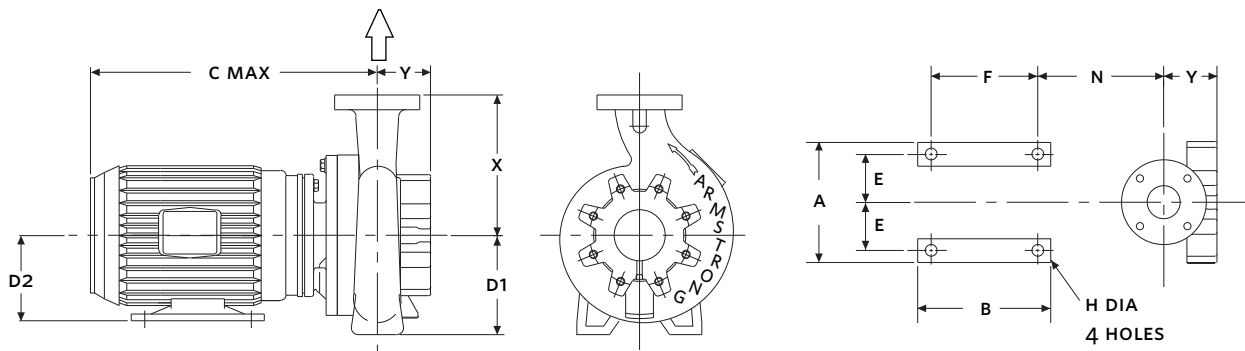
MOTOR	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME					ODP	TEFC							ODP	TEFC
213JP	—	3	10.50 (267)	7.00 (178)	21.00 (533)	23.00 (584)	10.00 (254)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	280 (127.1)	296 (134.4)
215JP	10	5	10.50 (267)	8.50 (216)	23.00 (584)	25.00 (635)	10.00 (254)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	304 (138.0)	321 (145.7)
254JM	15	7.5	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	10.00 (254)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	360 (163.4)	399 (181.1)
256JM	20	10	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	10.00 (254)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	394 (178.9)	454 (206.1)
284JP	25	—	13.88 (353)	12.25 (311)	27.00 (686)	29.00 (737)	10.00 (254)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.63 (321)	399 (181.1)	489 (222.0)
286JP	30	—	13.88 (353)	13.75 (349)	29.00 (737)	30.00 (762)	10.00 (254)	7.00 (178)	5.50 (140)	11.00 (279)	0.53 (13)	12.63 (321)	469 (212.9)	499 (226.5)

**PUMP DIMENSIONS**

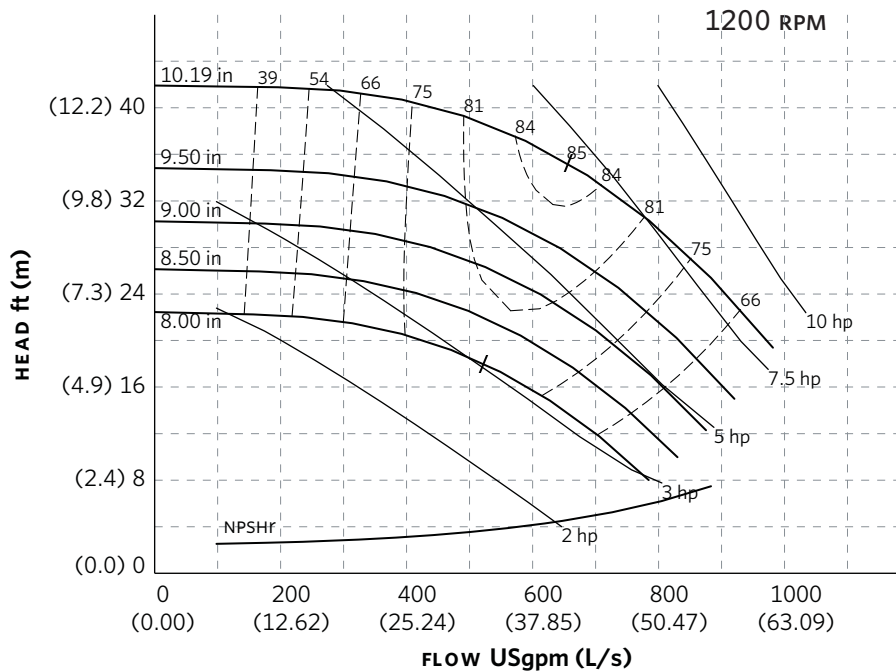
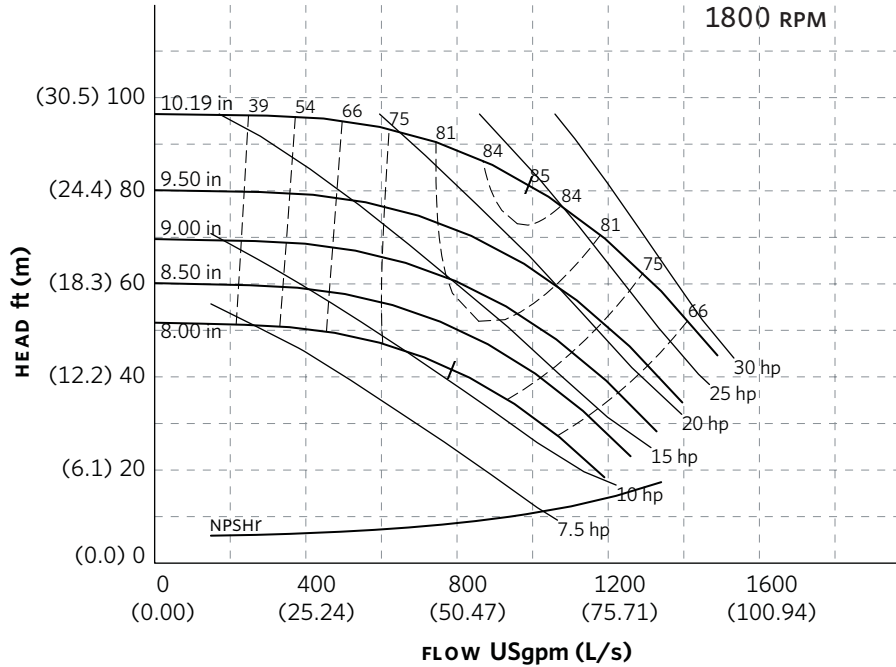
inches (mm)

X	Y
12.50 (317)	4.00 (102)

\*Assembly weight combines pump and motor.



## SERIES 4280 PERFORMANCE CURVES



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

**TORONTO**

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**SHANGHAI**

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 6 × 5 × 11.5 | SUBMITTAL

File No: 42.77  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.77  
Date: DECEMBER 15, 2010

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: 6" (150mm) Flanged  
 Discharge: 5" (125mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

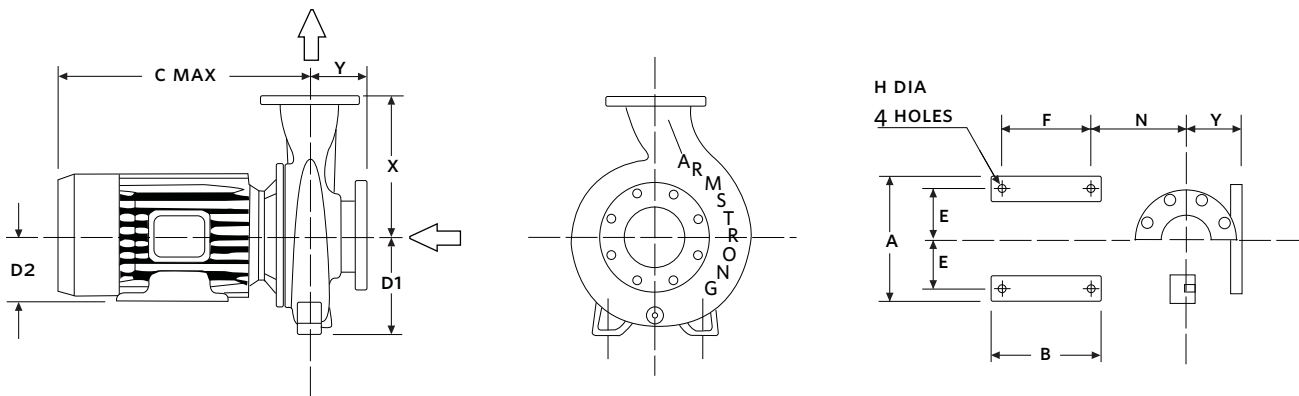
MOTOR	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME					ODP	TEFC							ODP	TEFC
213JP	—	3	9.63 (245)	6.50 (165)	20.75 (527)	23.75 (603)	10.00 (254)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	12.13 (308)	366 (166.2)	382 (173.4)
215JP	—	5	9.63 (245)	8.00 (203)	21.63 (549)	24.63 (626)	10.00 (254)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	377 (171.2)	407 (184.8)
254JM	15	7.5	11.50 (292)	9.50 (241)	22.00 (559)	25.38 (645)	10.00 (254)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	446 (202.5)	485 (220.2)
256JM	20	10	11.50 (292)	11.25 (286)	23.50 (597)	27.00 (686)	10.00 (254)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	480 (217.9)	540 (245.2)
284JP	25	—	14.00 (356)	11.25 (286)	26.13 (664)	29.63 (753)	10.00 (254)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.63 (321)	485 (220.2)	575 (261.1)
286JP	30	—	14.00 (356)	12.63 (321)	28.13 (715)	31.63 (803)	10.00 (254)	7.00 (178)	5.50 (140)	11.00 (279)	0.53 (13)	12.63 (321)	555 (252.0)	585 (265.6)
324JP	40	—	16.00 (406)	12.88 (327)	28.63 (727)	32.13 (816)	10.00 (254)	8.00 (203)	6.25 (159)	10.50 (267)	0.66 (17)	13.13 (334)	695 (315.5)	805 (365.5)

**PUMP DIMENSIONS**

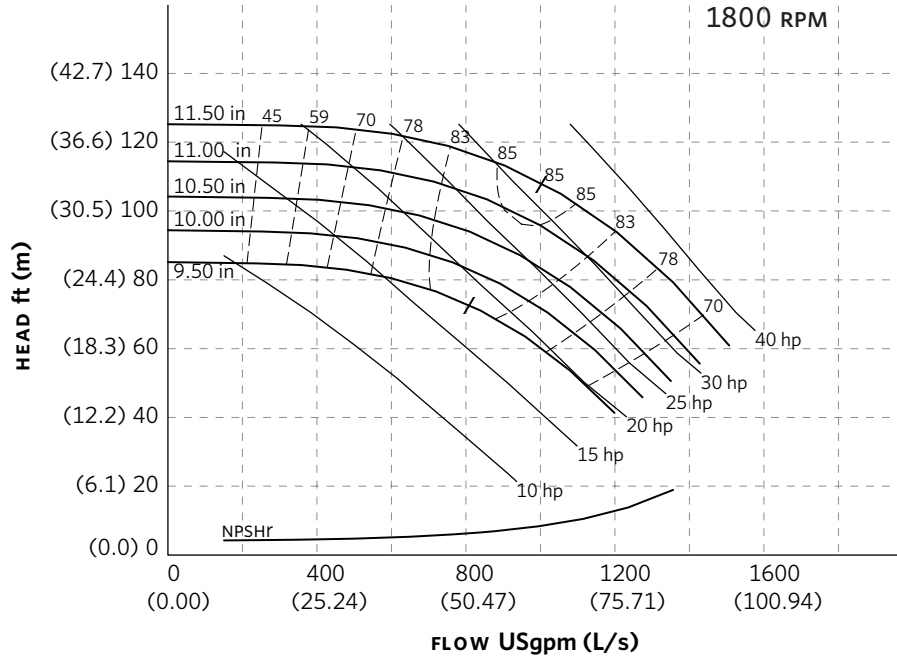
inches (mm)

X	Y
14.00 (356)	4.00 (102)

\*Assembly weight combines pump and motor.



## SERIES 4280 PERFORMANCE CURVES



**Curve number**  
PT102-1-0-1800

**Series**  
4030  
4280

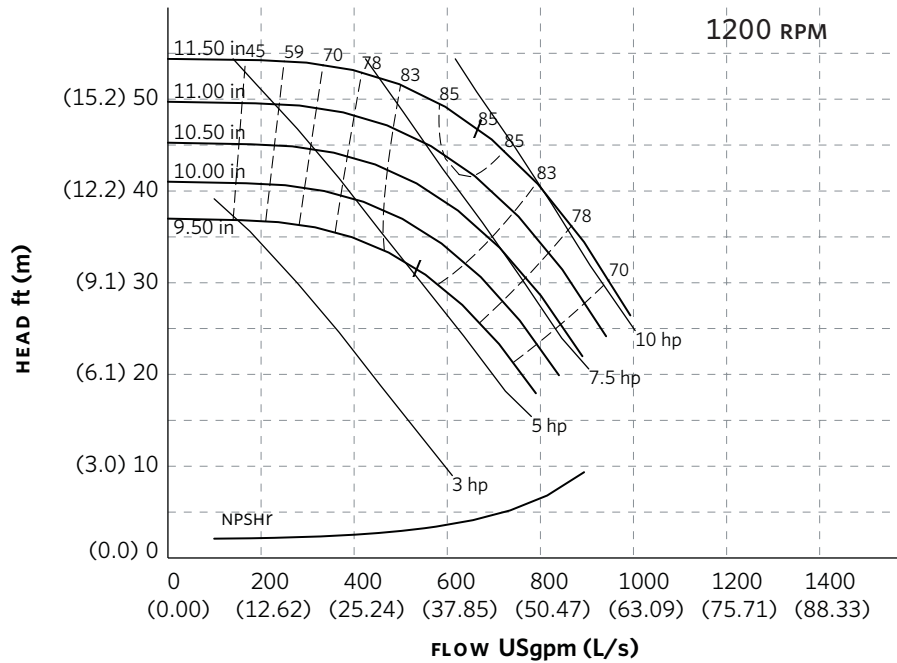
**Size**  
6 × 5 × 11.5

**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT102-1-0-1200

**Series**  
4030  
4280

**Size**  
6 × 5 × 11.5

**RPM**  
1200

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.  
Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 6 × 5 × 13 | SUBMITTAL

File No: 42.794  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.794  
Date: DECEMBER 15, 2010

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: 6" (150mm) Lugged  
 Discharge: 5" (125mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

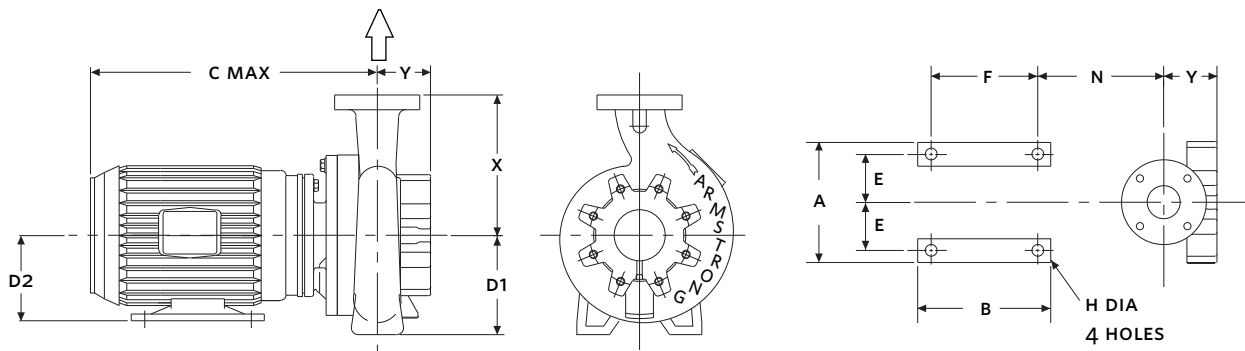
MOTOR	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*		
	FRAME	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
					ODP	TEFC								ODP	TEFC
254	—	7.5	11.25 (286)	11.50 (292)	23.58 (599)	27.84 (707)	11.00 (279)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	10.05 (255)	654 (296.7)	665 (301.7)	
256	—	10	11.25 (286)	11.50 (292)	23.58 (599)	27.84 (707)	11.00 (279)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	10.05 (255)	688 (312.2)	698 (316.7)	
284	25	15	13.50 (343)	12.94 (329)	27.71 (704)	32.52 (826)	11.00 (279)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.93 (328)	721 (327.1)	783 (355.3)	
286	30	20	13.50 (343)	12.94 (329)	27.71 (704)	32.52 (826)	11.00 (279)	7.00 (178)	5.50 (140)	11.00 (279)	0.53 (13)	12.93 (328)	763 (346.2)	923 (418.8)	
324	40	—	16.00 (406)	14.00 (356)	29.59 (752)	34.42 (874)	11.00 (279)	8.00 (203)	6.25 (159)	10.50 (267)	0.66 (17)	13.43 (341)	903 (409.7)	1013 (459.6)	
326	50	—	16.00 (406)	14.00 (356)	29.59 (752)	34.42 (874)	11.00 (279)	8.00 (203)	6.25 (159)	12.00 (305)	0.66 (17)	13.43 (341)	943 (427.9)	1073 (486.8)	

**PUMP DIMENSIONS**

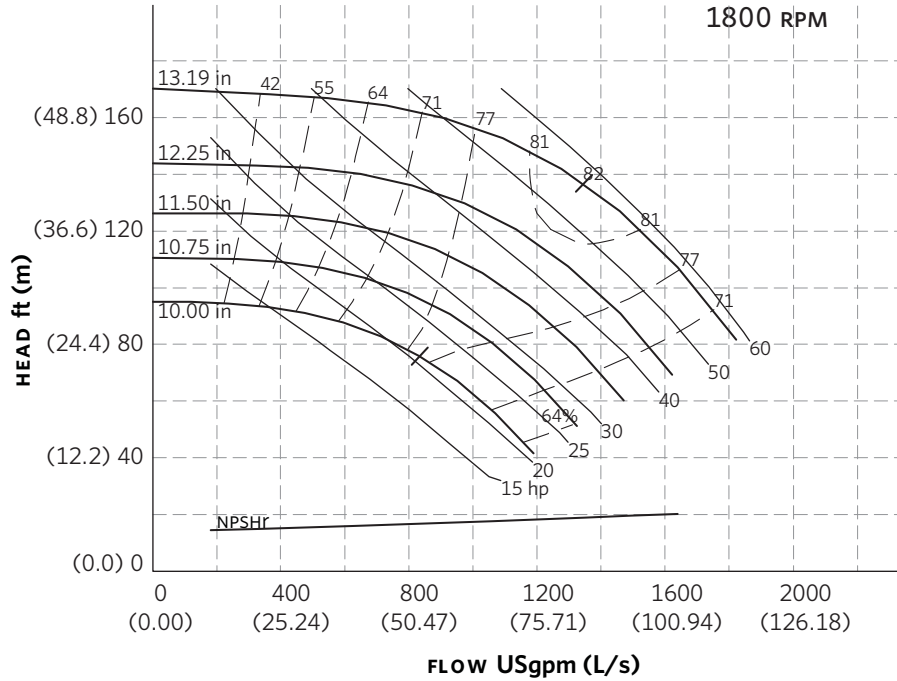
inches (mm)

X	Y
14.00 (356)	5.51 (140)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT598-0-0-1800

**Series**  
4030  
4280

**Size**  
6 × 5 × 13

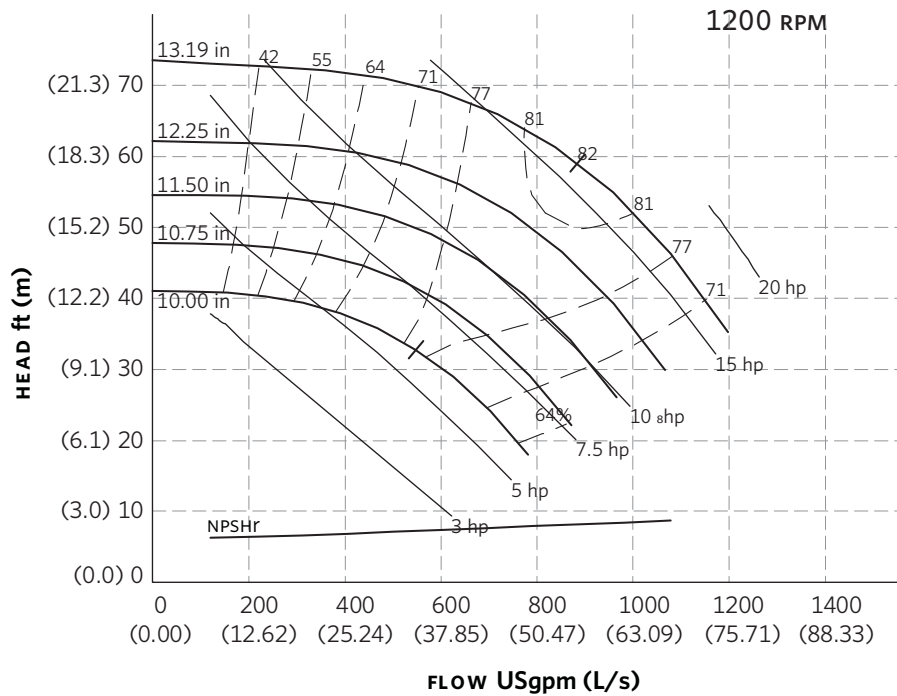
**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT598-0-0-1160

**Series**  
4030  
4280

**Size**  
6 × 5 × 13

**RPM**  
1200

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 6 × 6 × 6 | SUBMITTAL

File No: 42.582  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.582  
Date: DECEMBER 15, 2010

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: 6" (150mm) Flanged  
Discharge: 6" (150mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

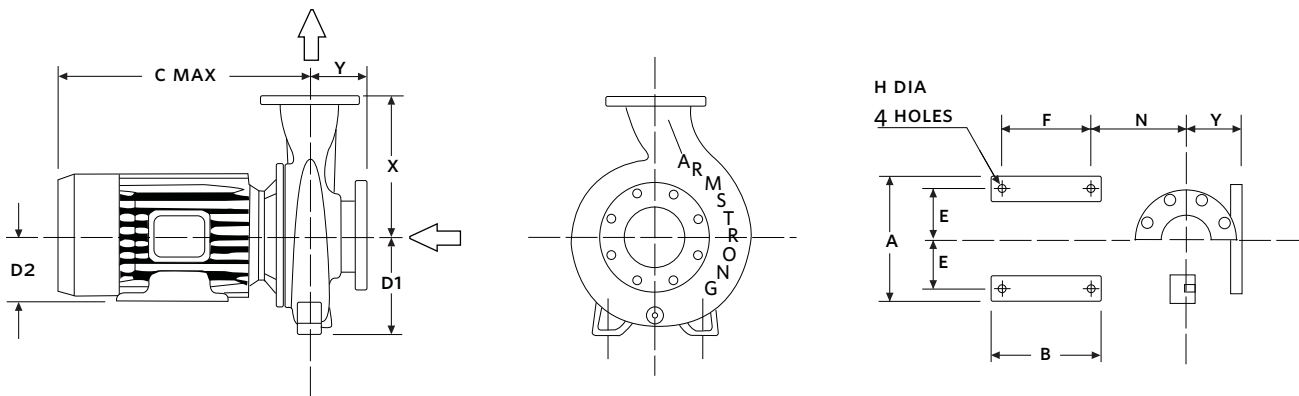
MOTOR	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME					ODP	TEFC							ODP	TEFC
145JM	1.5	1	6.50 (165)	6.00 (152)	16.02 (407)	18.14 (461)	8.25 (210)	3.50 (89)	2.75 (70)	5.00 (127)	0.35 (9)	8.90 (226)	125 (56.7)	130 (59.0)
182JM	3	1.5	8.63 (219)	6.00 (152)	16.96 (431)	20.83 (529)	8.25 (210)	4.50 (114)	3.75 (95)	4.50 (114)	0.41 (10)	9.52 (242)	156 (70.8)	158 (71.7)
184JM	5	2	8.63 (219)	6.00 (152)	16.96 (431)	20.83 (529)	8.25 (210)	4.50 (114)	3.75 (95)	5.50 (140)	0.41 (10)	9.52 (242)	160 (72.6)	163 (73.9)
213JM	7.5	3	9.50 (241)	6.00 (152)	19.80 (503)	25.98 (660)	8.25 (210)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	11.71 (297)	181 (82.1)	197 (89.4)

**PUMP DIMENSIONS**

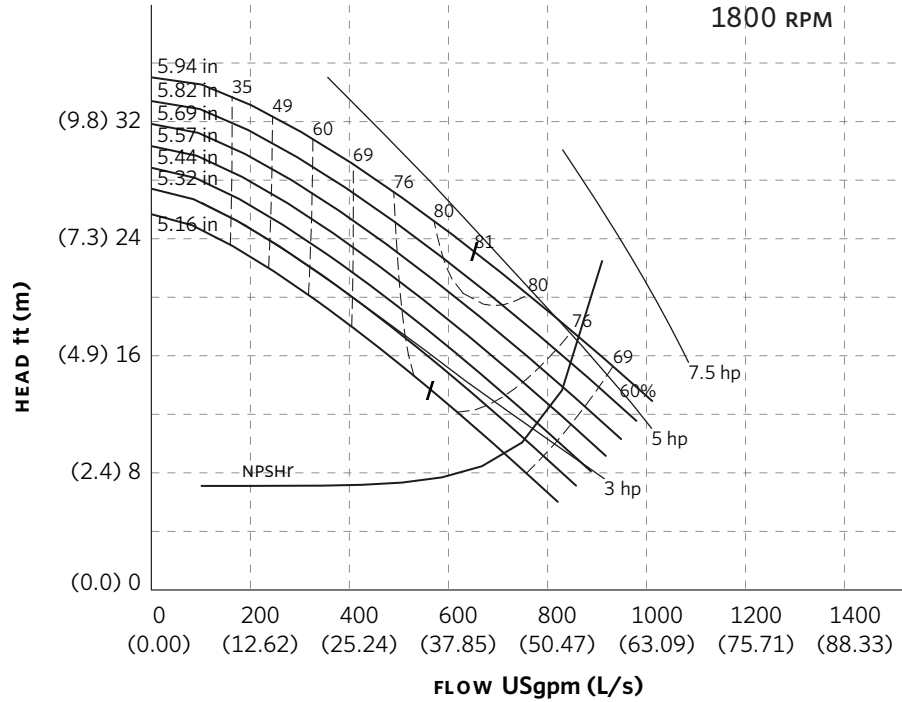
inches (mm)

X	Y
11.00 (279)	4.50 (114)

\*Assembly weight combines pump and motor.



## SERIES 4280 PERFORMANCE CURVES



**Curve number**  
PT211-1-0-1800

**Series**  
4030  
4280

**Size**  
6 × 6 × 6

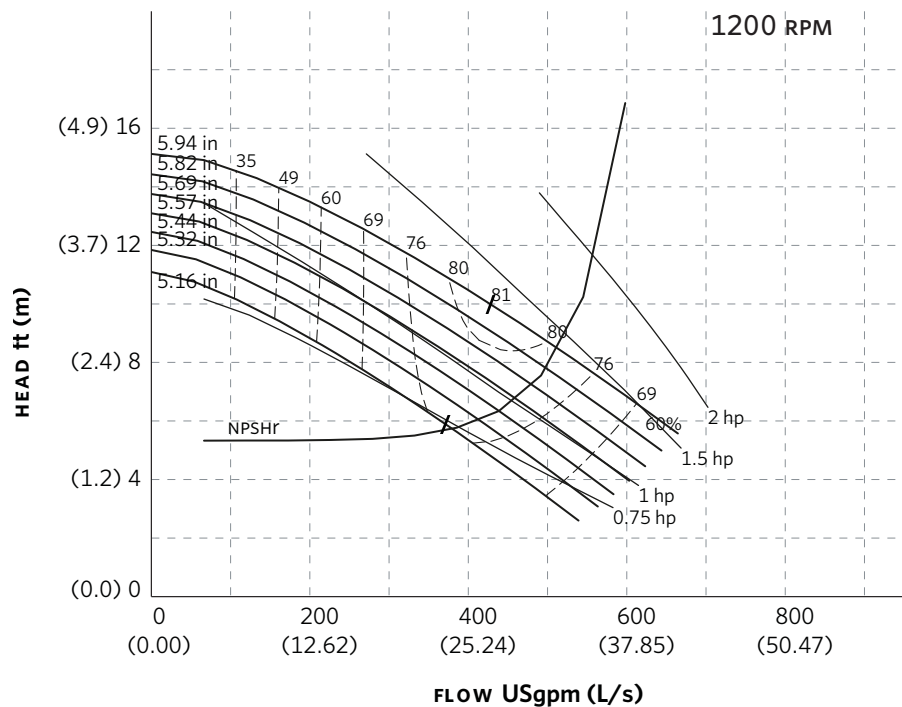
**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT211-1-0-1200

**Series**  
4030  
4280

**Size**  
6 × 6 × 6

**RPM**  
1200

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 8 × 6 × 10 | SUBMITTAL

File No: 42.74  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.74  
Date: DECEMBER 15, 2010

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: 8" (200mm) Lugged  
 Discharge: 6" (150mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

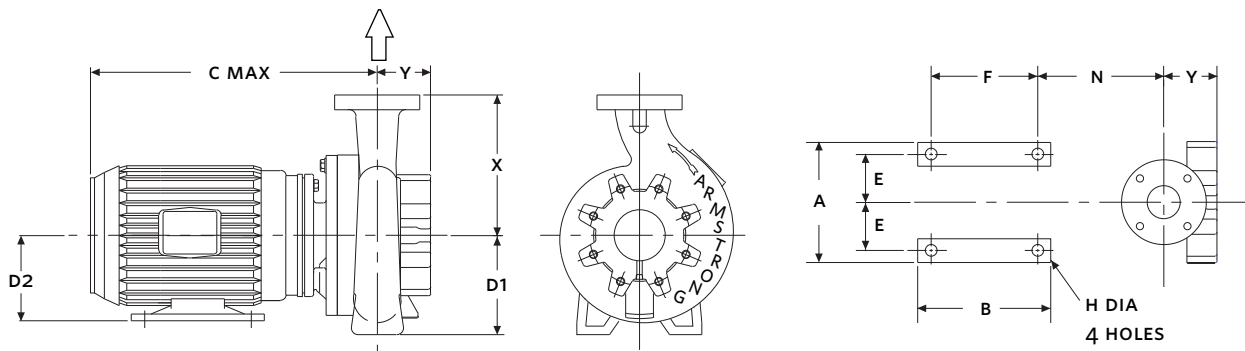
**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

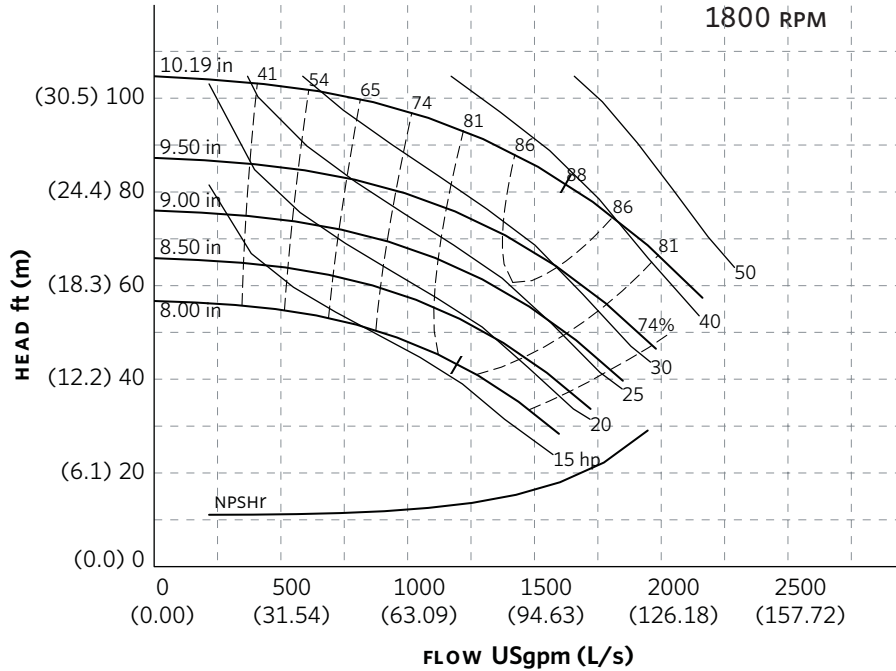
FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Temperature</b>	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)	up to 200°F (93°C)	over 200°F (93°C)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

MOTOR FRAME	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)												ASSEMBLY WEIGHT*	
	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	X	Y	lbs (kgs)	
					ODP	TEFC									ODP	TEFC
215JP	—	5	10.50 (267)	8.50 (216)	23.00 (584)	25.00 (635)	10.00 (254)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	12.13 (308)	12.50 (317)	4.00 (102)	343 (155.7)	373 (169.3)
254JM	15	7.5	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	10.00 (254)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	13.00 (330)	4.00 (102)	412 (187.0)	451 (204.8)
256JM	20	10	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	10.00 (254)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	13.00 (330)	4.00 (102)	446 (202.5)	506 (229.7)
284JP	25	15	13.88 (353)	12.25 (311)	27.00 (686)	29.00 (737)	10.00 (254)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.63 (321)	13.00 (330)	4.00 (102)	479 (217.5)	541 (245.6)
286JP	30	—	13.88 (353)	13.75 (349)	29.00 (737)	30.00 (762)	10.00 (254)	7.00 (178)	5.50 (140)	11.00 (279)	0.53 (13)	12.63 (321)	13.00 (330)	4.00 (102)	521 (236.5)	551 (250.2)
324JP	40	—	15.88 (403)	13.75 (349)	29.00 (737)	31.00 (787)	10.00 (254)	8.00 (203)	6.25 (159)	10.50 (267)	0.66 (17)	13.13 (334)	13.00 (330)	4.00 (102)	661 (300.1)	771 (350.0)

\*Assembly weight combines pump and motor.



**SERIES 4280 PERFORMANCE CURVES**



**Curve number**  
PT108-1-0-1800

**Series**  
4030  
4280

**Size**  
8 × 6 × 10

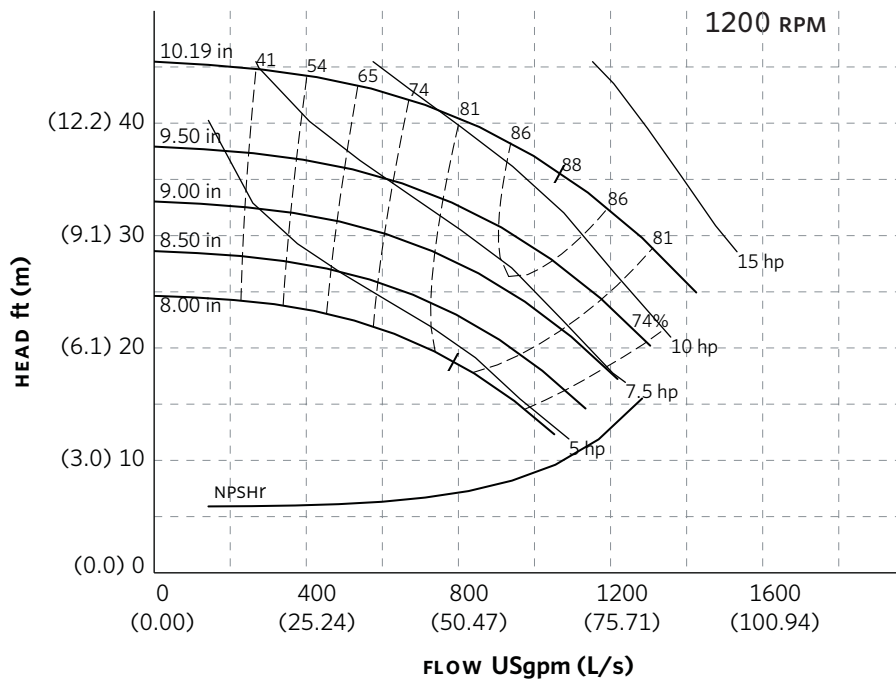
**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT108-1-0-1200

**Series**  
4030  
4280

**Size**  
8 × 6 × 10

**RPM**  
1200

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 8 × 6 × 11.5 | SUBMITTAL

File No: 42.78  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.78  
Date: DECEMBER 15, 2010

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: 8" (200mm) Flanged \*\*

Discharge: 6" (150mm) Flanged

\*\*Suction connection on ANSI 250 units will be Lugged.

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_

Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3

Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide

**Secondary seal:** EPDM **Rotating hardware:** Stainless steel

**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

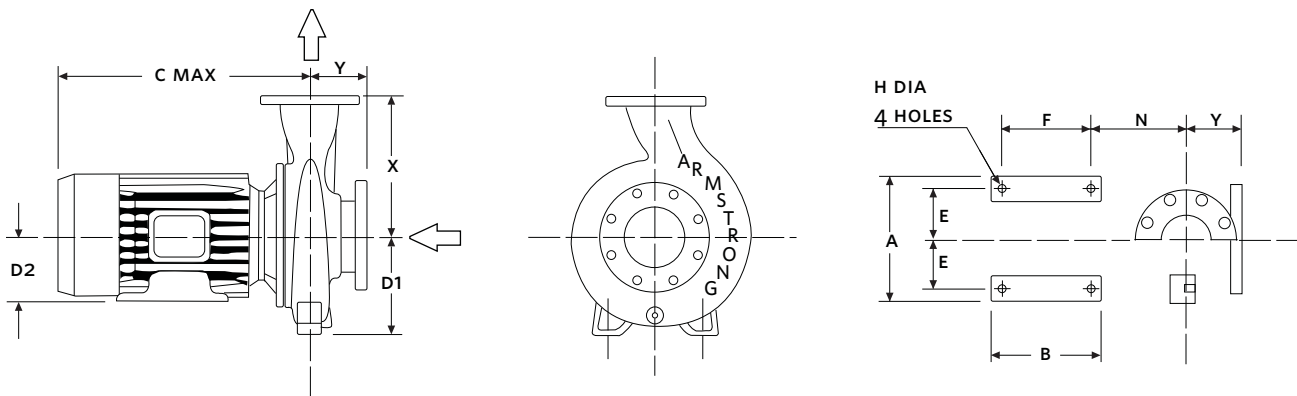
MOTOR	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
FRAME					ODP	TEFC							ODP	TEFC
254JM	—	7.5	11.50 (292)	9.50 (241)	22.00 (559)	25.38 (645)	12.00 (305)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	516 (234.3)	527 (239.3)
256JM	—	10	11.50 (292)	11.25 (286)	23.50 (597)	27.00 (686)	12.00 (305)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	550 (249.7)	560 (254.2)
284JP	25	15	14.00 (356)	11.25 (286)	26.13 (664)	29.63 (753)	12.00 (305)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.63 (321)	583 (264.7)	645 (292.8)
286JP	30	20	14.00 (356)	12.63 (321)	28.13 (715)	31.63 (803)	12.00 (305)	7.00 (178)	5.50 (140)	11.00 (279)	0.53 (13)	12.63 (321)	625 (283.8)	785 (356.4)
324JP	40	—	16.00 (406)	12.88 (327)	28.63 (727)	32.13 (816)	12.00 (305)	8.00 (203)	6.25 (159)	10.50 (267)	0.66 (17)	13.13 (334)	765 (347.3)	875 (397.3)
326JP	50	—	16.00 (406)	14.38 (365)	30.13 (765)	33.63 (854)	12.00 (305)	8.00 (203)	6.25 (159)	12.00 (305)	0.66 (17)	13.13 (334)	805 (365.5)	935 (424.5)

**PUMP DIMENSIONS**

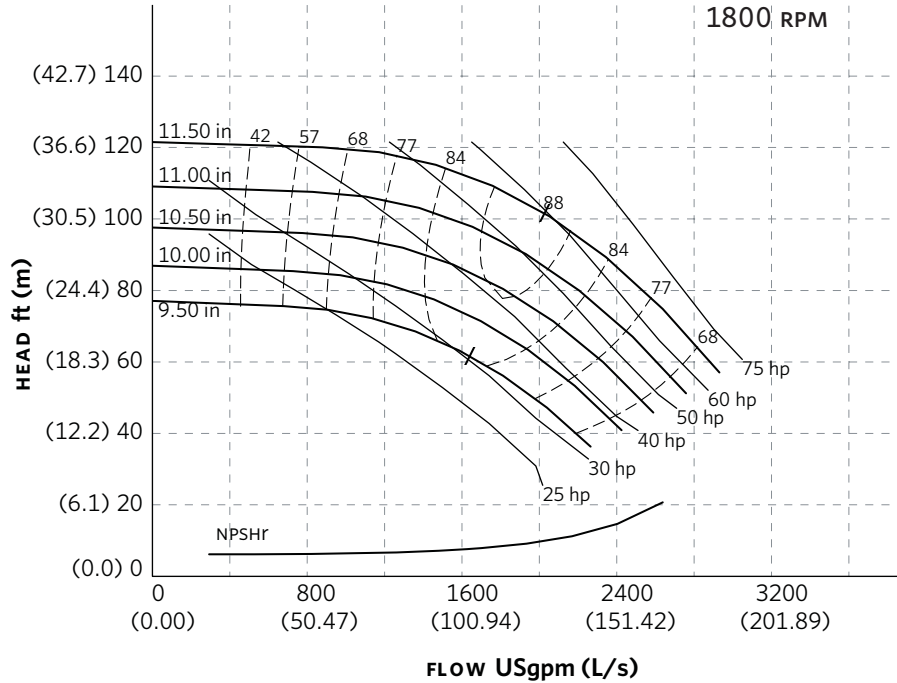
inches (mm)

X	Y
14.00 (356)	4.00 (102)

\*Assembly weight combines pump and motor.



## SERIES 4280 PERFORMANCE CURVES



**Curve number**  
PT109-1-0-1800

**Series**  
4030  
4280

**Size**  
8 × 6 × 11.5

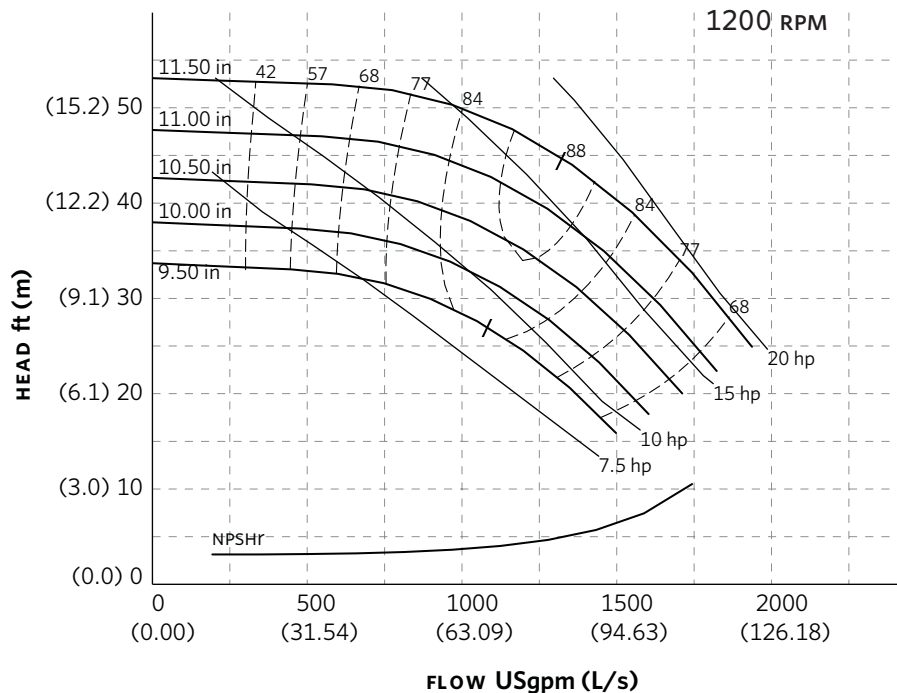
**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 FR 326 MAX.

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT109-1-0-1200

**Series**  
4030  
4280

**Size**  
8 × 6 × 11.5

**RPM**  
1200

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 8 × 6 × 13 | SUBMITTAL

File No: 42.796  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.796  
Date: DECEMBER 15, 2010

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: 8" (200mm) Lugged  
 Discharge: 6" (150mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

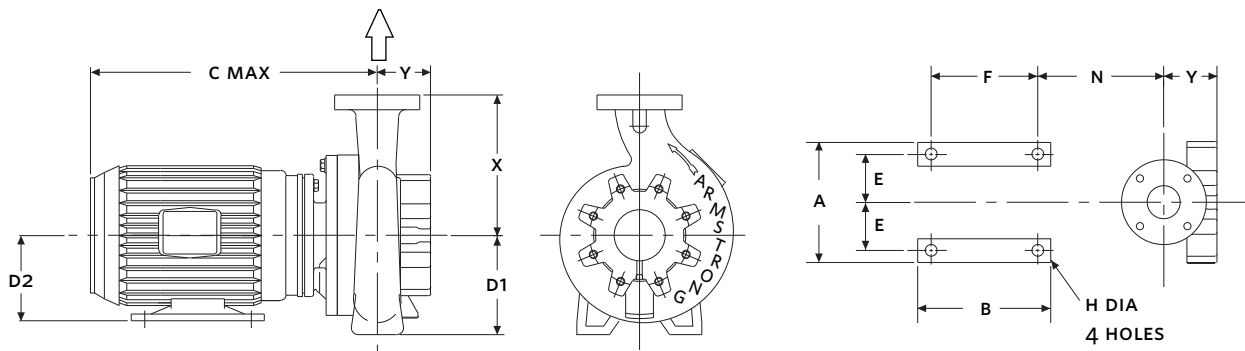
MOTOR	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*		
	FRAME	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
						ODP	TEFC							ODP	TEFC
254JM	—	7.5	12.38 (314)	10.50 (267)	22.00 (559)	24.00 (610)	12.00 (305)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	9.75 (248)	654 (296.7)	665 (301.7)	
256JM	—	10	12.38 (314)	12.25 (311)	24.00 (610)	26.00 (660)	12.00 (305)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	9.75 (248)	688 (312.2)	698 (316.7)	
284JP	—	15	13.88 (353)	12.25 (311)	26.88 (683)	28.88 (734)	12.00 (305)	7.00 (178)	5.50 (140)	9.50 (241)	0.53 (13)	12.88 (327)	721 (327.1)	783 (355.3)	
286JP	30	20	13.88 (353)	13.75 (349)	28.88 (734)	29.88 (759)	12.00 (305)	7.00 (178)	5.50 (140)	11.00 (279)	0.53 (13)	12.88 (327)	763 (346.2)	923 (418.8)	
324JP	40	—	15.88 (403)	13.75 (349)	28.88 (734)	30.88 (784)	12.00 (305)	8.00 (203)	6.25 (159)	10.50 (267)	0.66 (17)	13.13 (334)	903 (409.7)	1013 (459.6)	
326JP	50	—	15.88 (403)	15.25 (387)	30.88 (784)	32.88 (835)	12.00 (305)	8.00 (203)	6.25 (159)	12.00 (305)	0.66 (17)	13.13 (334)	943 (427.9)	1073 (486.8)	

**PUMP DIMENSIONS**

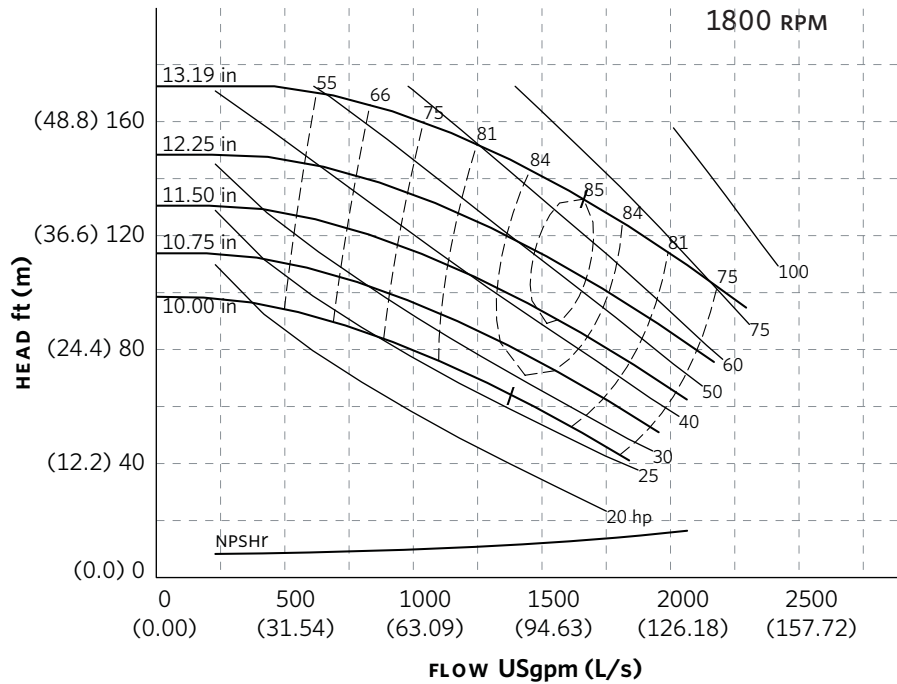
inches (mm)

X	Y
16.00 (406)	4.00 (102)

\*Assembly weight combines pump and motor.



## SERIES 4280 PERFORMANCE CURVES



**Curve number**  
PT110-1-0-1800

**Series**  
4030  
4280

**Size**  
8 × 6 × 13

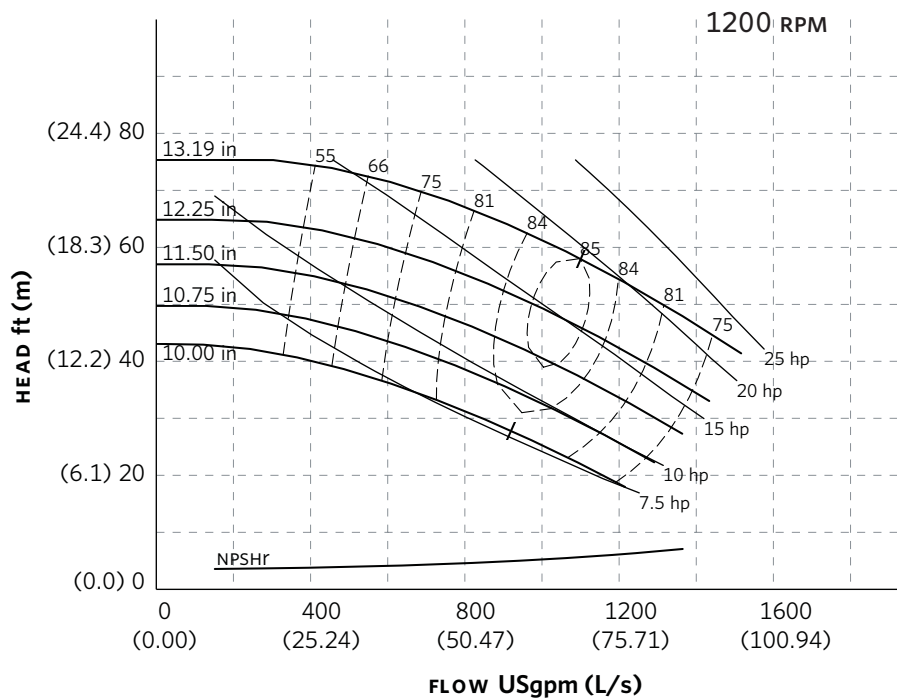
**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT110-1-0-1200

**Series**  
4030  
4280

**Size**  
8 × 6 × 13

**RPM**  
1200

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
guaranteed only  
at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000

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

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## SERIES 4280 | END SUCTION MOTOR MOUNTED CLOSED-COUPLED | 8 × 8 × 8 | SUBMITTAL

File No: 42.655  
Date: SEPTEMBER 10, 2012  
Supersedes: 42.655  
Date: DECEMBER 15, 2010

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: 8" (200mm) Flanged  
 Discharge: 8" (200mm) Flanged

### MOTOR DESIGN DATA

HP: \_\_\_\_\_ RPM: \_\_\_\_\_ Frame size: \_\_\_\_\_ Enclosure: \_\_\_\_\_  
 Volts: \_\_\_\_\_ Hertz: 60 Hz Phase: 3  
 Efficiency:  Energy EFF 12.11  NEMA premium 12.12

### MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	ANSI 125	ANSI 250
<b>Construction</b>	<input type="checkbox"/> BF	<input type="checkbox"/> DBF
<b>Casing</b>	Cast iron	Ductile iron
<b>Adapter</b>	Cast iron	Ductile iron

**Impeller:** Bronze

**Gasket:** Confined non-asbestos fiber

**Shaft:** Carbon steel

**Shaft sleeve:** Bronze

### 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
- See performance curves on page 3
- For exact installation, data please write factory for certified dimensions
- Pump equipped with casing drain plug and ¼" NPT suction and discharge gauge ports

### MECHANICAL SEAL DATA

**Seal type:** 2A **Stationary seat:** Silicone carbide  
**Secondary seal:** EPDM **Rotating hardware:** Stainless steel  
**Spring:** Stainless steel

### OPTIONAL EQUIPMENT

FLUID TYPE	ALL GLYCOLS > 30% WT CONC		ALL OTHER NON-POTABLE FLUIDS		POTABLE (DRINKING) WATER	
	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)
<b>Temperature</b>	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)
<b>Rotating face</b>	Silicone carbide		Resin bonded carbon	Antimony loaded carbon	Resin bonded carbon	
<b>Seat elastomer</b>	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)	EPDM (L-cup)	EPDM (O-ring)
<b>Material code</b>	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

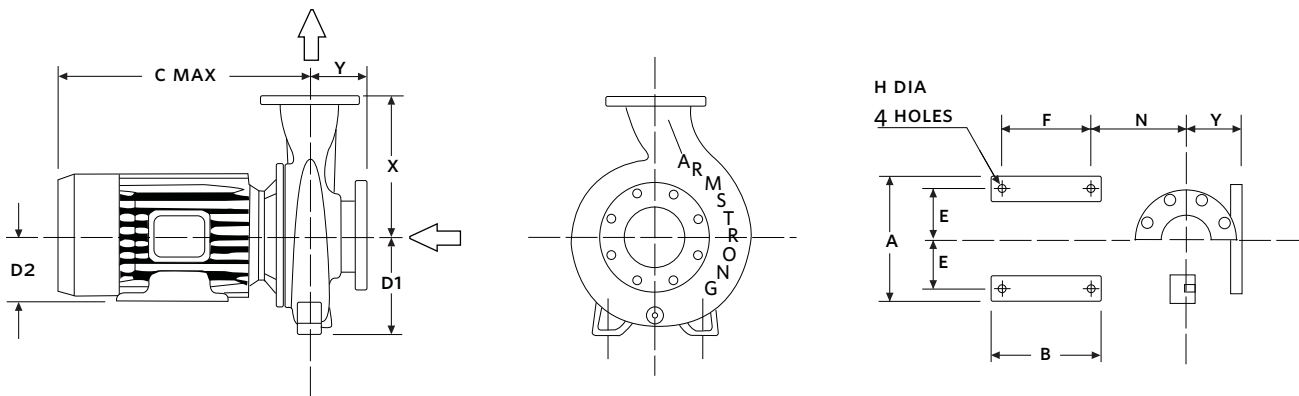
MOTOR	HP @ RPM (ODP & TEFC)		MAX. DIMENSIONS INCHES (mm)										ASSEMBLY WEIGHT*	
	1800	1200	A	B	C MAX		D1	D2	E	F	H	N	lbs (kgs)	
					ODP	TEFC							ODP	TEFC
213JP	7.5	3	10.50 (267)	7.00 (178)	31.00 (787)	31.00 (787)	11.00 (279)	5.25 (133)	4.25 (108)	5.50 (140)	0.41 (10)	15.31 (389)	420 (190.7)	430 (195.2)
215JP	10	5	10.50 (267)	8.50 (216)	31.00 (787)	31.00 (787)	11.00 (279)	5.25 (133)	4.25 (108)	7.00 (178)	0.41 (10)	15.31 (389)	435 (197.5)	445 (202.0)
254JM	15	—	12.38 (314)	10.50 (267)	31.00 (787)	31.00 (787)	11.00 (279)	6.25 (159)	5.00 (127)	8.25 (210)	0.53 (13)	12.78 (325)	480 (217.9)	530 (240.6)
256JM	20	—	12.38 (314)	12.25 (311)	31.00 (787)	31.00 (787)	11.00 (279)	6.25 (159)	5.00 (127)	10.00 (254)	0.53 (13)	12.78 (325)	515 (233.8)	585 (265.6)

**PUMP DIMENSIONS**

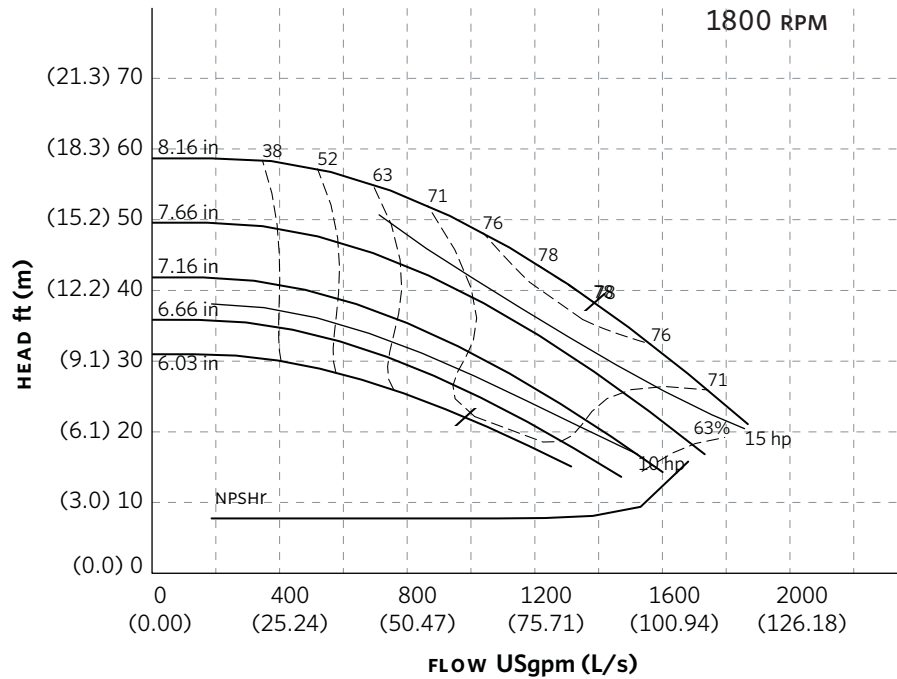
inches (mm)

X	Y
16.00 (406)	4.00 (102)

\*Assembly weight combines pump and motor.



## SERIES 4280 PERFORMANCE CURVES



**Curve number**  
PT210-1-0-1800

**Series**  
4030  
4280

**Size**  
8 × 8 × 8

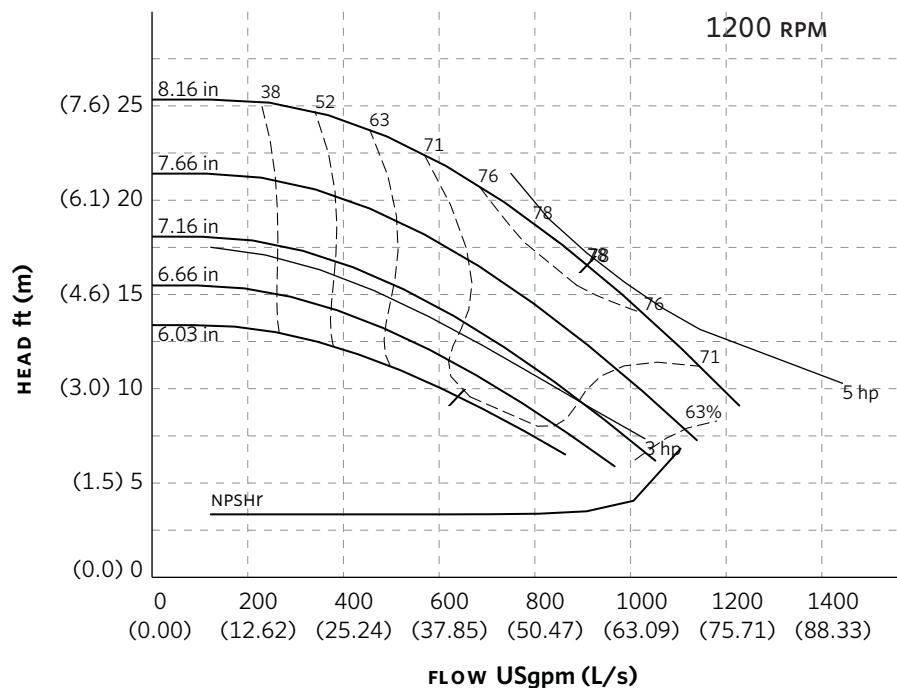
**RPM**  
1800

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings.

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at operating point  
indicated.

Curve shown for  
clear, cold water  
- SP. GR. 1.0000



**Curve number**  
PT210-1-0-1200

**Series**  
4030  
4280

**Size**  
8 × 8 × 8

**RPM**  
1200

BHP based on shown  
Fluid's sp. gr.

**Availability**  
4030 all ratings  
4280 all ratings

Performance  
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