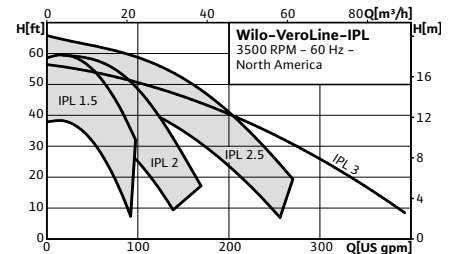
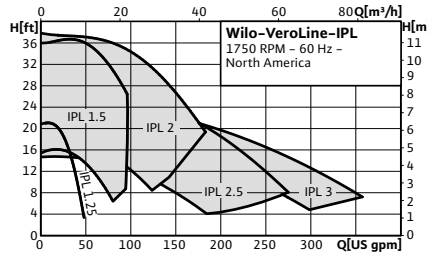


Wilо-VeroLine-IPL North America

Duty charts



Single-head pumps:

Single stage inline, flanged, long coupled, mechanical sealed dry rotor pump

Application:

For pumping heating water, water/glycol-mixtures, cooling/cold water.

Model Number Designation:

IPL 1.25-21/50-2

IPL	Inline single stage centrifugal pump
1.25	Flange size in inch
21	Maximal head in feet
50	Maximal flow in US gpm
2	Number of poles 4=1,750 rpm, 2=3,500 rpm

Construction:

- Single stage low pressure centrifugal, inline design with mechanical seal
- Baldor NEMA standard motors

Advantages:

- Pump flanges 125 # raised face ANSI std
- Cathaphoretic coating for corrosion protection
- Pump feet drilled and tapped for ease of installation
- All bolts "non-metric"

Basic technical data:

- Temperature range: 15 °F to + 250 °F (-10 °C to +120 °C)
- Power supply (smaller horsepower): 1~115/208-230 volt, 60 Hz
- Power supply (larger horsepower): 3~208-230/460, 575 volt, 60 Hz
- Motor options: ODP, TEFC, Premium and "Super E" efficiency types, 2 and 4 pole available (3,500 and 1,750 RPM)
- Flange connection: 1 ½" to 3" with ¼" pressure gauge tappings
- Maximum operating pressure 145 PSI (10 bar), minimum inlet pressure NPSHreq dependant (see detailed curves)

Material:

- Pump volute: cast iron
- Impeller: engineered composite
- Shaft: 316L stainless steel stub shaft
- Mechanical seal: Q1Q1X4GG (silicium carbide seal faces, HNBR elastomers)

Inline Pumps

Wilo-VeroLine-IPL

Function, Equipment & Technical data

Wilo-VeroLine-IPL	
Approved fluids (other fluids on request)	
Heating water	•
Water-glycol-mixtures at 20-40 Vol.-% glycol and fluid temperature ≤ 104 °F > 40 Vol.-% glycol > 20 Vol.-% glycol and fluid temperature > 104 °F	• • Additive dependant – please contact WILO
Cooling and cold water	•
Heat transfer oil	Custom version – please contact WILO
Application limits	
Standard version with nominal pressure, P _{max.} [PSI]	145 (10 bar)
Temperature range [°F]	15 to 250 (-10 °C to +120 °C)
Ambient temperature, max. [°F]	104 (40 °C)
Installation in closed buildings	•
Outdoor installation	Custom version – please contact WILO
Typical flange sizes	
Nominal diameters for connection	1.25", 1.5", 2", 2.5" and 3"
Flanges (acc. ASME Class 125)	< 2,5" Wilo-specific ≥ 2,5" ASME Class 125
Flanges with tappings NPT	1/4" - 18 NPT
Materials	
Pump housing and lantern	cast iron
Impeller standard version	fibre reinforced plastic (polypropylene or noryl)
Impeller special version	–
Stub shaft	stainless steel 316L
Mechanical seal standard version	Q1Q1X4GG (silicium carbide seal faces, HNBR elastomers)
Mechanical seal special version (on request, against extra costs)	AQ1EGG
Other mechanical seals (on request, against extra costs)	•
Motor	
Motor voltages	1~115 / 208-230 V, 60 Hz (≤ 2 HP) 3~208-230 / 460 V, 60 Hz (≥ 1 HP) 3~575 V, 60 Hz (≥ 1 HP)
Speed [RPM]	1750 or 3500
Integrated full motor protection	integrated protection PTC/PTO on request (on-site trip unit required)
Protection class	ODP (TEFC on request)
Insulation class	F

Function, Equipment & Technical data

	Wilo-VeroLine-IPL
Installation possibilities	
Pipe installation	•
Support bracket installation	•

• = available, – = not available

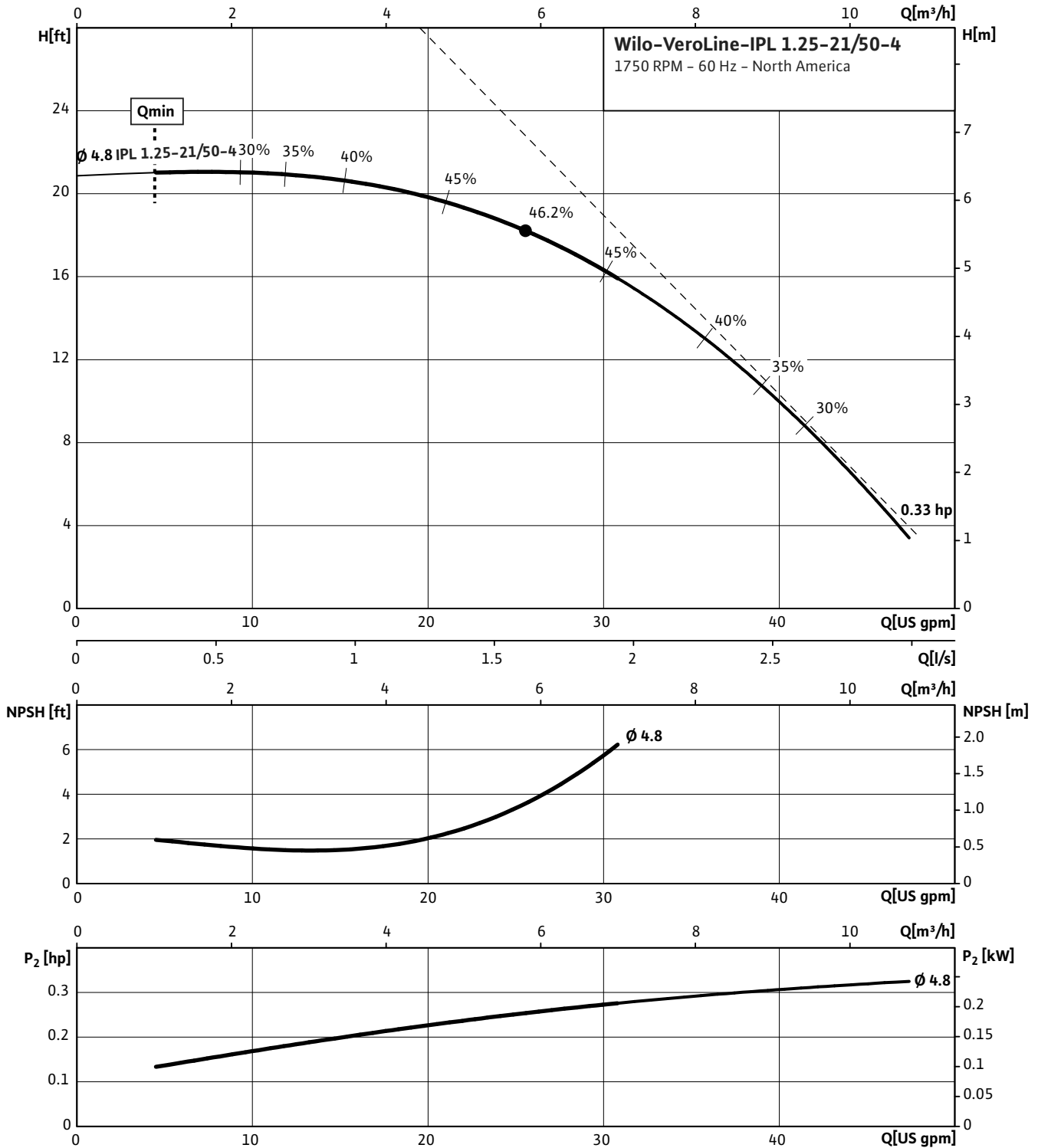
Inline Pumps

Wilo-VeroLine-IPL

Pump Curves

Wilo-VeroLine-IPL 1.25-21/50-4

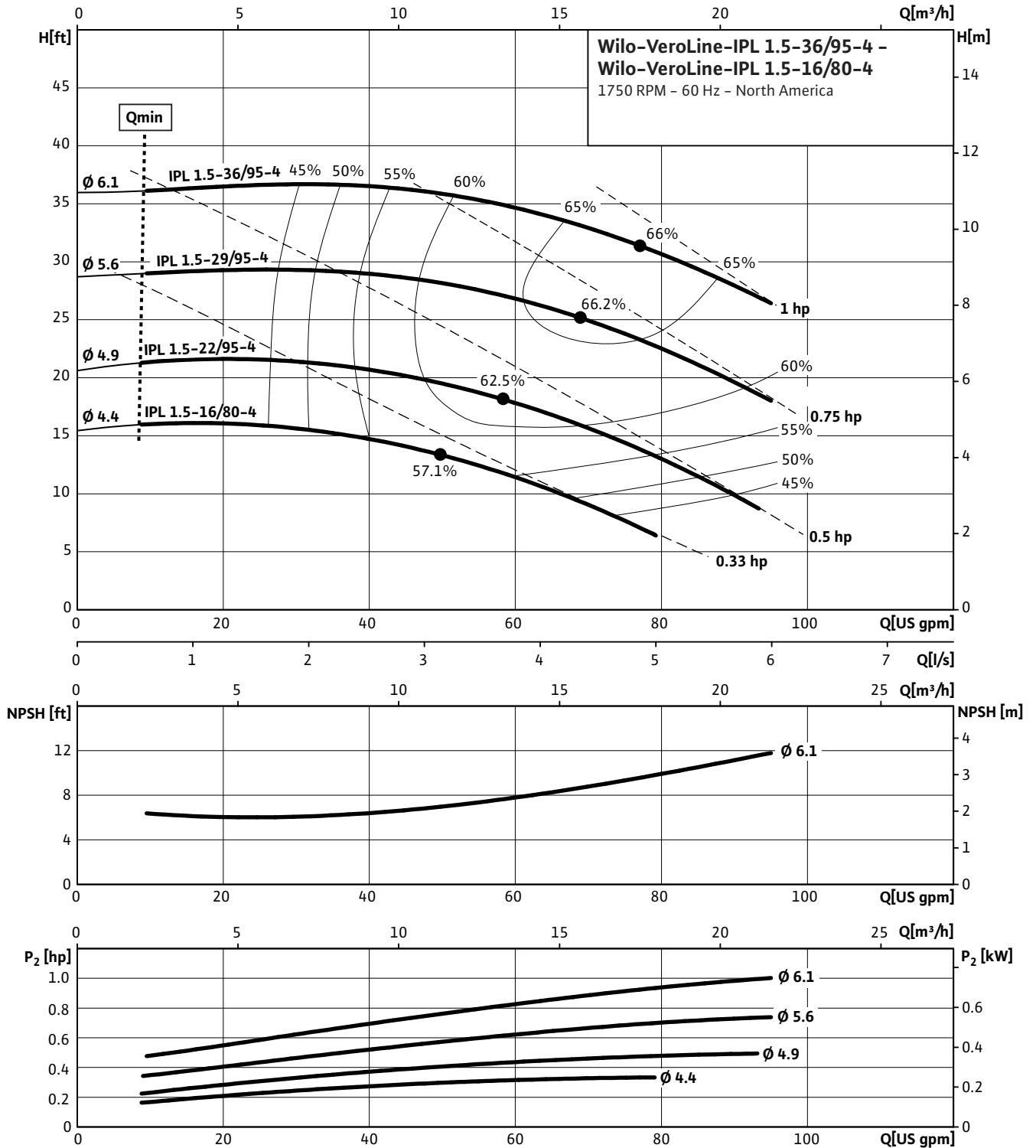
Speed 1750 RPM



Pump Curves

Wilco-VeroLine-IPL 1.5-36/95-4 to 1.5-16/80-4

Speed 1750 RPM



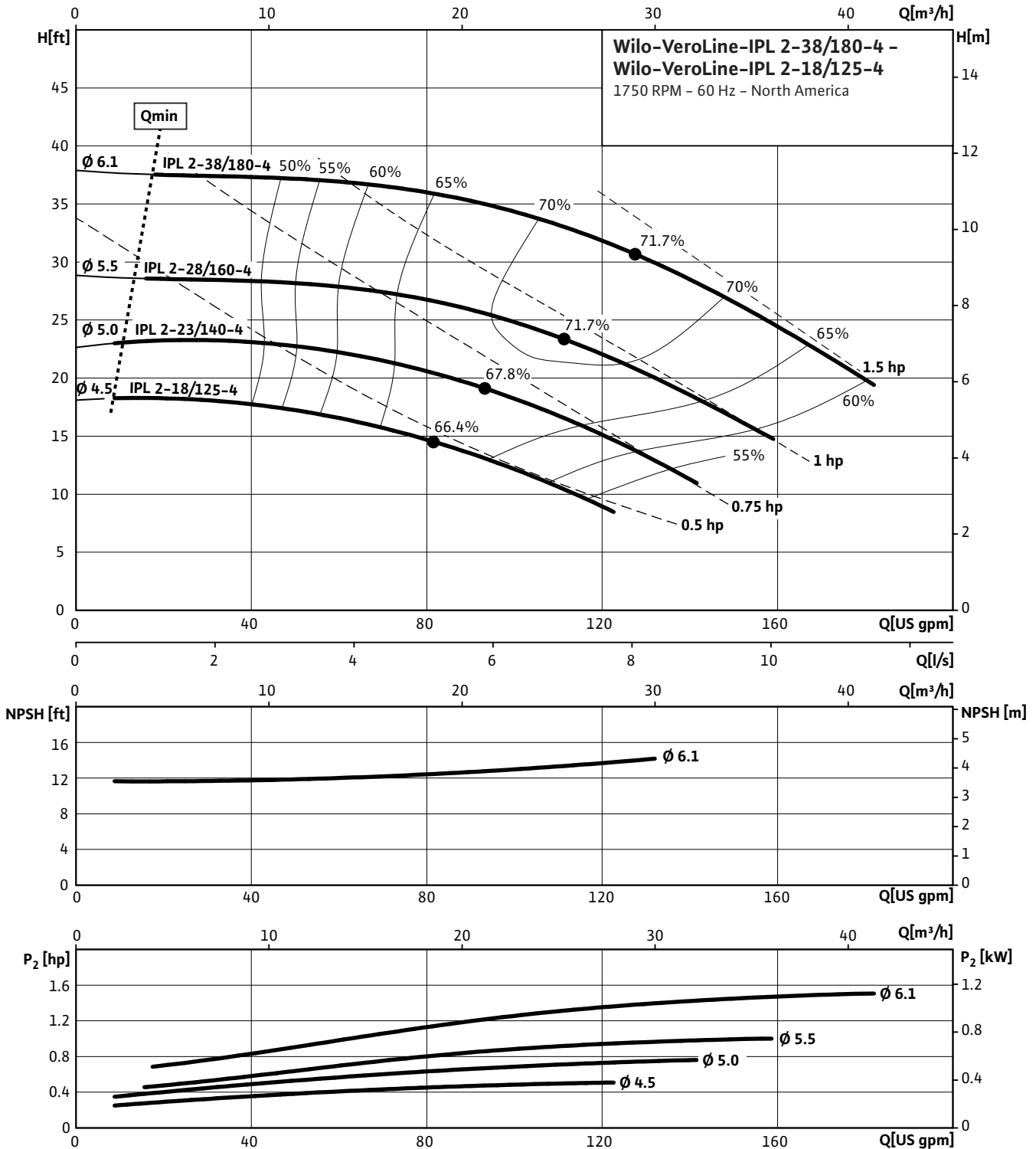
Inline Pumps

Wilo-VeroLine-IPL

Pump Curves

Wilo-VeroLine-IPL 2-38/180-4 to 2-18/125-4

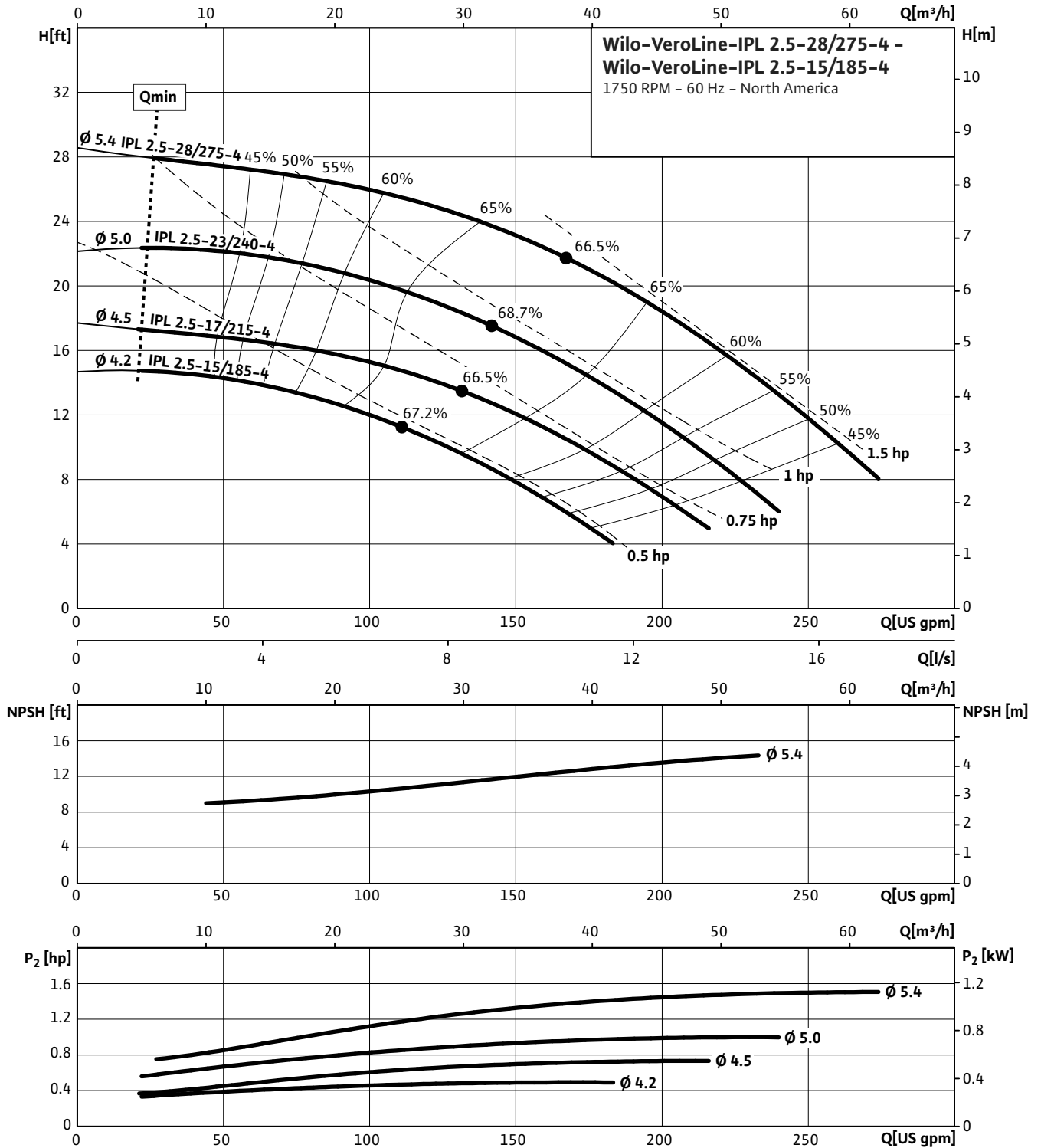
Speed 1750 RPM



Pump Curves

Wilo-VeroLine-IPL 2.5-28/275-4 to 2.5-15/185-4

Speed 1750 RPM



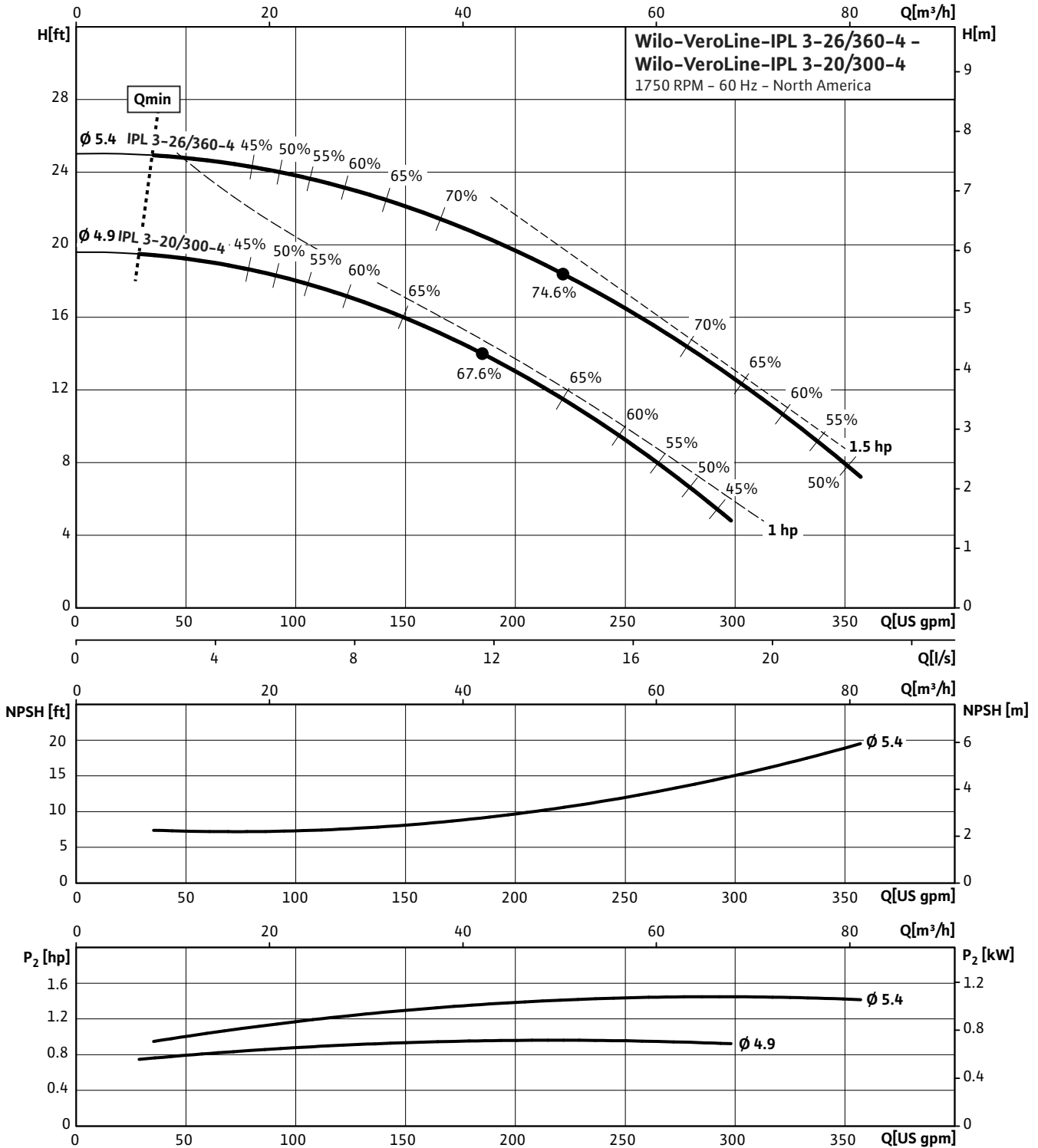
Inline Pumps

Wilo-VeroLine-IPL

Pump Curves

Wilo-VeroLine-IPL 3-26/360-4 to 3-20/300-4

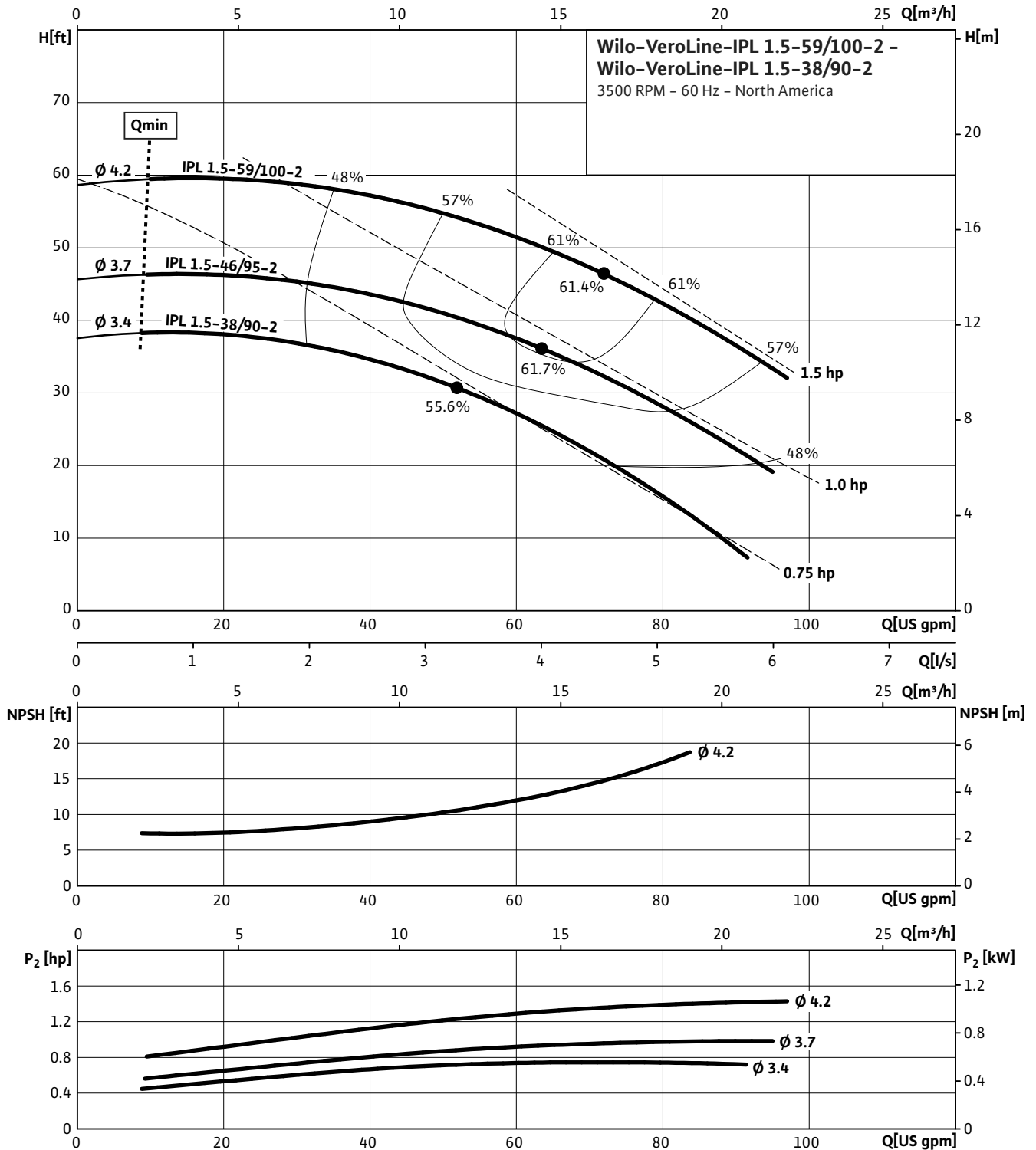
Speed 1750 RPM



Pump Curves

Wilco-VeroLine-IPL 1.5-59/100-2 to 1.5-38/90-2

Speed 3500 RPM



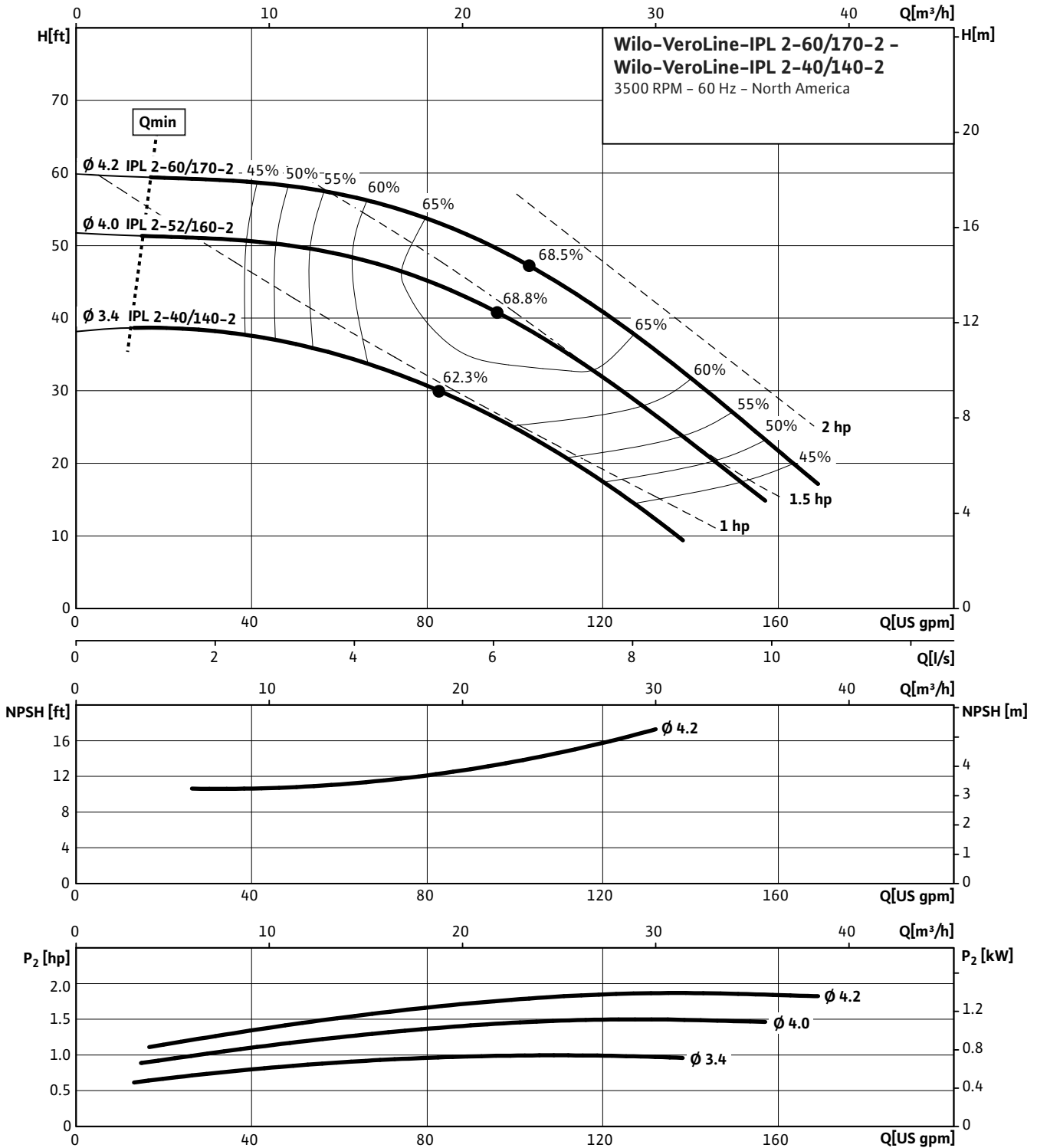
Inline Pumps

Wilo-VeroLine-IPL

Pump Curves

Wilo-VeroLine-IPL 2-60/170-2 to 2-40/140-2

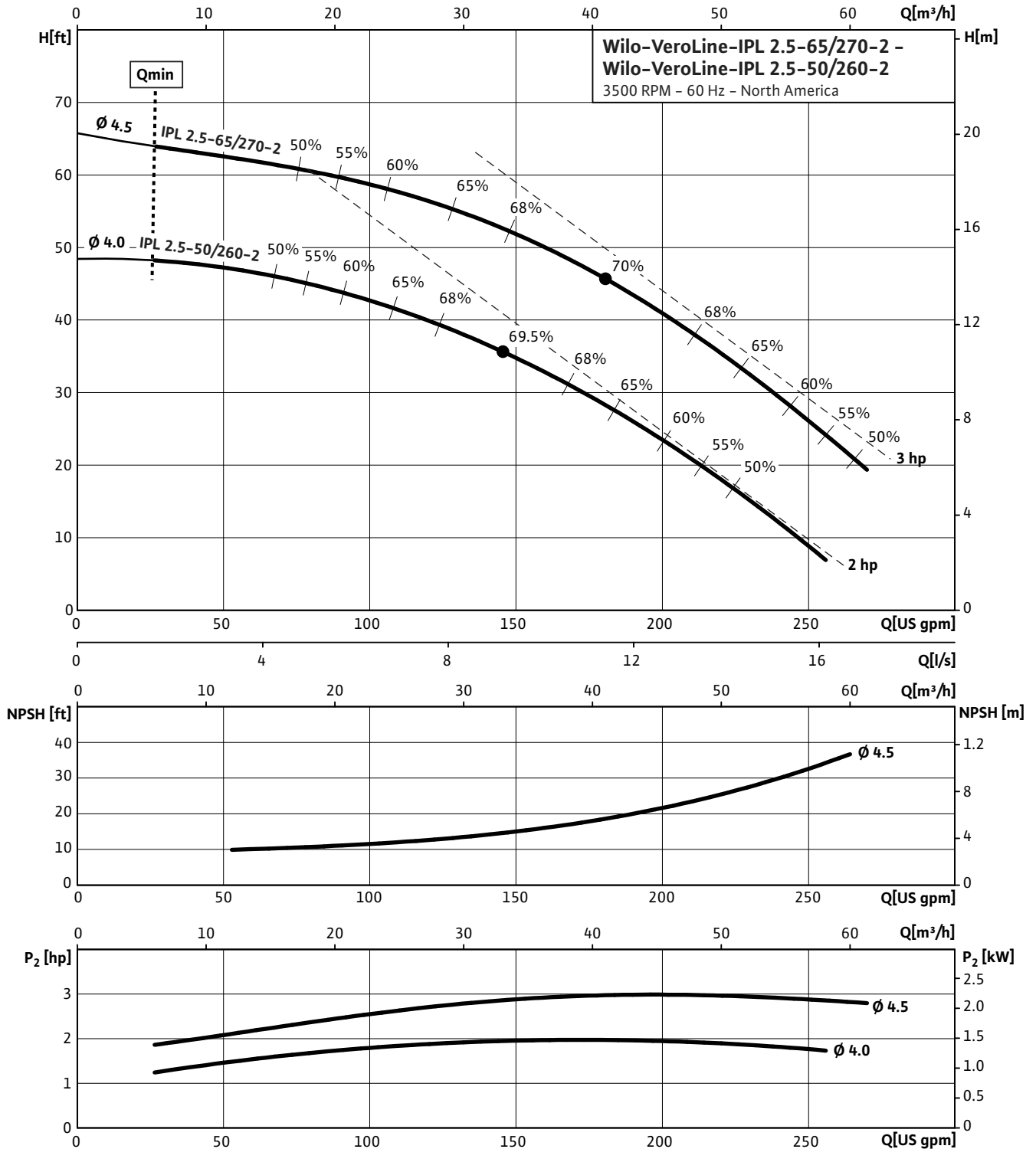
Speed 3500 RPM



Pump Curves

Wilo-VeroLine-IPL 2.5-65/270-2 to 2.5-50/260-2

Speed 3500 RPM



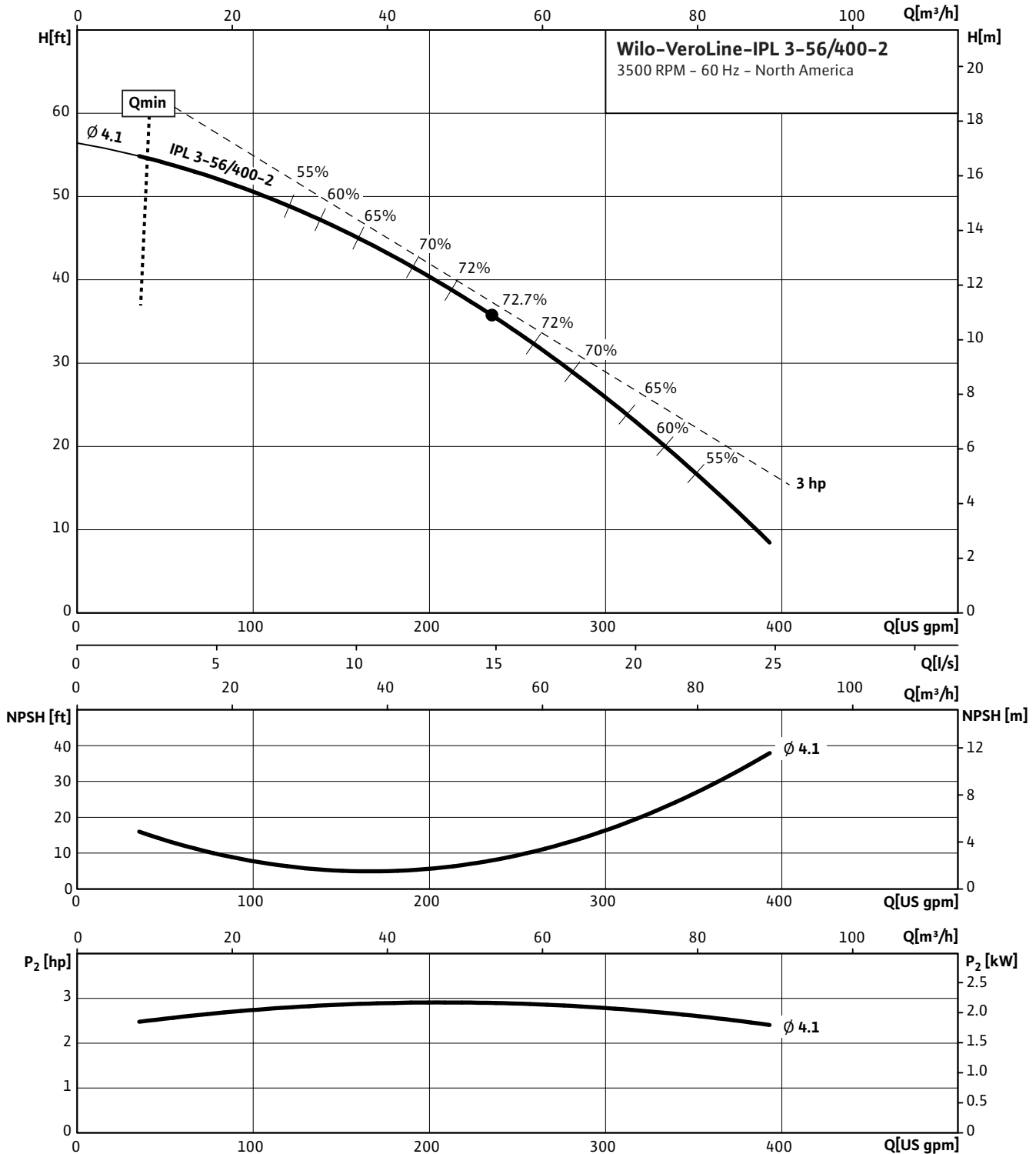
Inline Pumps

Wilo-VeroLine-IPL

Pump Curves

Wilo-VeroLine-IPL 3-56/400-2

Speed 3500 RPM



Wiring diagrams, Motor Data

Wiring diagrams

Wiring diagrams are specific to and included with each motor.
Check rotation on start-up on both single and three phase motors.

Motor data						
nominal Speed	Motor Power		Phase	Voltage	Frequency	Full Load Current
n	P ₂		-	U	f	I _n
[RPM]	[HP]	ca. [kW]	[-]	[V]	[Hz]	[A]
1750	0.33	0.25	1	115 / 208-230	60	6 / 3.2 - 3
1750	0.5	0.37	1	115 / 208-230	60	8.4 / 4.4 - 4.2
1750	0.75	0.55	1	115 / 208-230	60	10.2 / 5.4 - 5.1
1750	1	0.75	1	115 / 208-230	60	13.4 / 7.4 - 6.7
1750	1	0.75	3	208-230 / 460	60	3.4 / 1.7
1750	1	0.75	3	575	60	1.4
1750	1.5	1.1	1	115 / 208-230	60	18 / 9.5 - 9
1750	1.5	1.1	3	208-230 / 460	60	5 - 4.8 / 2.4
1750	1.5	1.1	3	575	60	1.9
3500	0.75	0.55	1	115 / 208-230	60	9.4 / 4.9 - 4.7
3500	1	0.75	1	115 / 208-230	60	15 / 7.9 - 7.5
3500	1	0.75	3	208-230 / 460	60	3.7-3.6 / 1.8
3500	1	0.75	3	575	60	1.2
3500	2	1.5	1	115 / 208-230	60	24 / 12.6 - 12
3500	2	1.5	3	208-230 / 460	60	6.2 - 5.8 / 2.9
3500	2	1.5	3	575	60	2.3
3500	3	2.2	3	208-230 / 460	60	8.5 - 8 / 4
3500	3	2.2	3	575	60	3

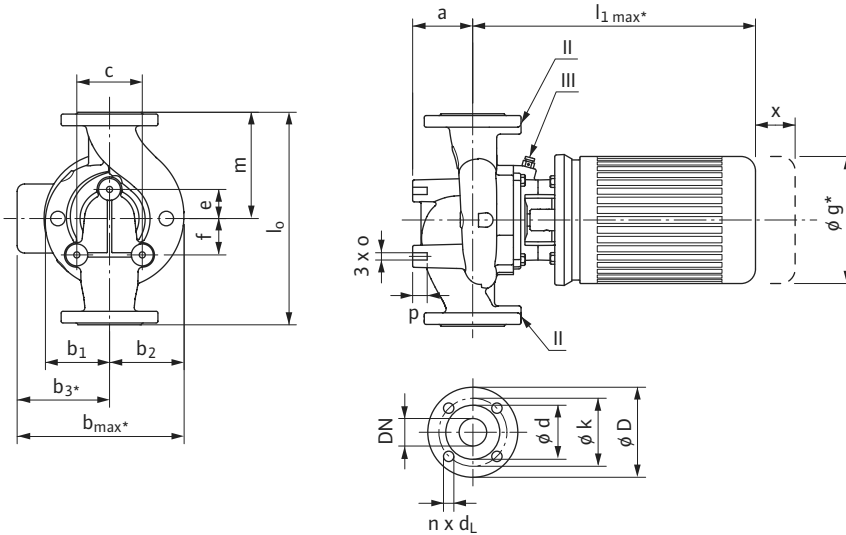
Motor allocation							
Pump Type	nominal Speed	Motor Power		Pump Type	nominal Speed	Motor Power	
	n	P ₂			n	P ₂	
	[RPM]	[HP]	ca. [kW]		[RPM]	[HP]	ca. [kW]
IPL 1.25-21/50-4	1750	0.33	0.25		-	-	-
IPL 1.5-16/80-4	1750	0.33	0.25	IPL 1.5-38/90-2	3500	0.75	0.55
IPL 1.5-22/95-4	1750	0.5	0.37	IPL 1.5-46/95-2	3500	1	0.75
IPL 1.5-29/95-4	1750	0.75	0.55	IPL 1.5-59/100-2	3500	1.5	1.1
IPL 1.5-36/95-4	1750	1	0.75		-	-	-
IPL 2-18/125-4	1750	0.5	0.37	IPL 2-40/140-2	3500	1	0.75
IPL 2-23/140-4	1750	0.75	0.55	IPL 2-52/160-2	3500	1.5	1.1
IPL 2-28/160-4	1750	1	1	IPL 2-60/170-2	3500	2	1.5
IPL 2-38/180-4	1750	1.5	1.1		-	-	-
IPL 2.5-15/185-4	1750	0.5	0.37	IPL 2.5-50/260-2	3500	2	1.5
IPL 2.5-17/215-4	1750	0.75	0.55	IPL 2.5-65/270-2	3500	3	2.2
IPL 2.5-23/240-4	1750	1	0.75		-	-	-
IPL 2.5-28/275-4	1750	1.5	1.1		-	-	-
IPL 3-20/300-4	1750	1	0.75	IPL 3-56/400-2	3500	3	2.2
IPL 3-26/360-4	1750	1.5	1.1		-	-	-

Inline Pumps

Wilo-Veroline-IPL

Wiring diagrams, Motor Data

Dimension drawing



II gauge tappings 1/4-18 NPT III vent plug 1/8

* dimension dependant on motor manufacturer

Dimensions, weights – US units

Pump Type	DN	a	b ₁	b ₂	b ₃ *	b _{max} *	c	e	f	g*	l ₀	l _{1max} *	m	o	p	x	Weight
																	[lbs]
[in]																	
IPL 1.25-21/50-4	1 1/4"	2 3/4	3 3/4	4 1/16	5 1/4	9 1/16	3 9/16	1 9/16	1 15/16	7	11	17 11/16	5 1/2	3/8	1 3/16	5 7/8	52.0
IPL 1.5-16/80-4	1 1/2"	2 15/16	4 5/16	4 3/4	5 1/4	9 9/16	3 9/16	1 9/16	1 15/16	7	13	17 7/16	6 1/2	3/8	1 3/16	5 7/8	56.7
IPL 1.5-22/95-4	1 1/2"	2 15/16	4 5/16	4 3/4	5 1/4	9 9/16	3 9/16	1 9/16	1 15/16	7	13	17 7/16	6 1/2	3/8	1 3/16	5 7/8	58.6
IPL 1.5-29/95-4	1 1/2"	2 15/16	4 5/16	4 3/4	5 1/4	9 9/16	3 9/16	1 9/16	1 15/16	6 3/16	13	16 1/8	6 1/2	3/8	1 3/16	5 7/8	68.6
IPL 1.5-36/95-4	1 1/2"	2 15/16	4 5/16	4 3/4	5 1/4	9 9/16	3 9/16	1 9/16	1 15/16	7	13	17 7/16	6 1/2	3/8	1 3/16	5 7/8	76.7
IPL 2-18/125-4	2"	3 1/2	4 1/2	5 1/8	5 1/4	9 3/4	4 1/8	1 9/16	1 15/16	7	14	17 9/16	6 3/4	3/8	1 3/16	5 7/8	66.4
IPL 2-23/140-4	2"	3 1/2	4 1/2	5 1/8	5 1/4	9 3/4	4 1/8	1 9/16	1 15/16	7	14	17 9/16	6 3/4	3/8	1 3/16	5 7/8	76.3
IPL 2-28/160-4	2"	3 1/2	4 1/2	5 1/8	5 1/4	9 3/4	4 1/8	1 9/16	1 15/16	7	14	17 9/16	6 3/4	3/8	1 3/16	5 7/8	84.4
IPL 2-38/180-4	2"	3 1/2	4 1/2	5 1/8	5 1/4	9 3/4	4 1/8	1 9/16	1 15/16	7	14	17 9/16	6 3/4	3/8	1 3/16	5 7/8	91.3
IPL 2.5-15/185-4	2 1/2"	3 3/4	4 11/16	5 7/16	5 1/4	10 1/8	5 5/16	1 9/16	2 3/16	7	13 1/2	17 13/16	6 3/4	3/8	1 3/16	5 7/8	78.7
IPL 2.5-17/215-4	2 1/2"	3 3/4	4 11/16	5 7/16	5 1/4	10 1/8	5 5/16	1 9/16	2 3/16	6 3/16	13 1/2	16 7/16	6 3/4	3/8	1 3/16	5 7/8	88.8
IPL 2.5-23/240-4	2 1/2"	3 3/4	4 11/16	5 7/16	5 3/4	10 1/8	5 5/16	1 9/16	2 3/16	7	13 1/2	17 13/16	6 3/4	3/8	1 3/16	5 7/8	96.8
IPL 2.5-28/275-4	2 1/2"	3 3/4	4 11/16	5 7/16	5 3/4	10 1/8	5 5/16	1 9/16	2 3/16	7	13 1/2	17 13/16	6 3/4	3/8	1 3/16	5 7/8	89.7
IPL 3-20/300-4	3"	4 1/8	4 15/16	6	5 3/4	10 7/8	5 5/16	1 9/16	2 3/16	7	15	18 1/16	7	3/8	1 3/16	5 7/8	103.6
IPL 3-26/360-4	3"	4 1/8	4 15/16	6	5 3/4	10 11/16	5 5/16	1 9/16	2 3/16	7	15	18 1/16	7	3/8	1 3/16	5 7/8	110.7
IPL 1.5-38/90-2	1 1/2"	2 15/16	3 1/8	3 9/16	5 1/4	8 3/8	3 9/16	1 9/16	1 15/16	7	10	17 11/16	5	3/8	1 3/16	5 7/8	56.2
IPL 1.5-46/95-2	1 1/2"	2 15/16	3 1/8	3 9/16	5 1/4	8 3/8	3 9/16	1 9/16	1 15/16	7	10	17 11/16	5	3/8	1 3/16	5 7/8	58.2
IPL 1.5-59/100-2	1 1/2"	2 15/16	3 1/8	3 9/16	5 1/4	8 3/8	3 9/16	1 9/16	1 15/16	7	10	17 11/16	5	3/8	1 3/16	5 7/8	58.2
IPL 2-40/140-2	2"	3 3/4	3 1/2	4 1/16	5 1/4	8 3/4	3 9/16	1 9/16	1 15/16	7	11 1/2	17 7/8	5 3/4	3/8	1 3/16	5 7/8	65.7
IPL 2-52/160-2	2"	3 3/4	3 1/2	4 1/16	5 1/4	8 3/4	3 9/16	1 9/16	1 15/16	7	11 1/2	17 7/8	5 3/4	3/8	1 3/16	5 7/8	66.1
IPL 2-60/170-2	2"	3 3/4	3 1/2	4 1/16	5 1/4	8 3/4	3 9/16	1 9/16	1 15/16	7	11 1/2	17 7/8	5 3/4	3/8	1 3/16	5 7/8	77.2
IPL 2.5-50/260-2	2 1/2"	3 5/8	3 7/8	4 11/16	5 3/4	9 5/8	4 1/8	1 9/16	1 15/16	7	13 1/2	18	6 3/4	3/8	1	5 7/8	91.2
IPL 2.5-65/270-2	2 1/2"	3 5/8	3 7/8	4 11/16	5 3/4	9 5/8	4 1/8	1 9/16	1 15/16	7	13 1/2	18	6 3/4	3/8	1	5 7/8	86.7
IPL 3-56/400-2	3"	3 15/16	4 1/4	5 5/16	5 3/4	10	5 5/16	1 9/16	2 3/16	7	14	18 1/8	7	3/8	1	5 7/8	97.9

Wiring diagrams, Motor Data

Dimensions, weights –SI units

Pump Type	DN	a	b ₁	b ₂	b ₃ *	b _{max} *	c	e	f	g*	l ₀	l _{1 max} *	m	o	p	x	Weight
IPL 1.25-21/50-4	32	70.2	96.0	103.5	133.4	229.4	90	40	50	177.8	279.4	448.8	139.7	3/8	20	53.7	23.6
IPL 1.5-16/80-4	40	75.0	109.0	121.0	133.4	242.4	90	40	50	177.8	330.2	443.6	165.1	3/8	20	48.5	25.7
IPL 1.5-22/95-4	40	75.0	109.0	121.0	133.4	242.4	90	40	50	177.8	330.2	443.6	165.1	3/8	20	48.5	26.6
IPL 1.5-29/95-4	40	75.0	109.0	121.0	133.4	242.4	90	40	50	157.5	330.2	409.6	165.1	3/8	20	48.5	31.1
IPL 1.5-36/95-4	40	75.0	109.0	121.0	133.4	242.4	90	40	50	177.8	330.2	443.6	165.1	3/8	20	48.5	34.8
IPL 2-18/125-4	50	88.9	114.4	129.7	133.4	247.8	104	40	50	177.8	355.6	446.1	171.5	3/8	20	51.0	30.1
IPL 2-23/140-4	50	88.9	114.4	129.7	133.4	247.8	104	40	50	177.8	355.6	446.1	171.5	3/8	20	51.0	34.6
IPL 2-28/160-4	50	88.9	114.4	129.7	133.4	247.8	104	40	50	177.8	355.6	446.1	171.5	3/8	20	51.0	38.4
IPL 2-38/180-4	50	88.9	114.4	129.7	133.4	247.8	104	40	50	177.8	355.6	446.1	171.5	3/8	20	51.0	41.4
IPL 2.5-15/185-4	65	95.3	118.5	138.3	133.4	256.8	135	40	55	177.8	342.9	452.1	171.4	3/8	20	57.0	35.7
IPL 2.5-17/215-4	65	95.3	118.5	138.3	133.4	256.8	135	40	55	157.5	342.9	418.1	171.4	3/8	20	57.0	40.3
IPL 2.5-23/240-4	65	95.3	118.5	138.3	146.1	256.8	135	40	55	177.8	342.9	452.1	171.4	3/8	20	57.0	43.9
IPL 2.5-28/275-4	65	95.3	118.5	138.3	146.1	256.8	135	40	55	177.8	342.9	452.1	171.4	3/8	20	57.0	40.7
IPL 3-20/300-4	80	105	125.0	152.0	146.1	277.0	135	40	55	177.8	381.0	458.1	177.8	3/8	20	63.0	47.0
IPL 3-26/360-4	80	105	125.0	152.0	146.1	271.1	135	40	55	177.8	381.0	458.1	177.8	3/8	20	63.0	50.2
IPL 1.5-38/90-2	40	75.0	79.0	90.0	133.4	212.4	90	40	50	177.8	254.0	448.6	127.0	3/8	20	50.8	25.5
IPL 1.5-46/95-2	40	75.0	79.0	90.0	133.4	212.4	90	40	50	177.8	254.0	448.6	127.0	3/8	20	50.8	26.4
IPL 1.5-59/100-2	40	75.0	79.0	90.0	133.4	212.4	90	40	50	177.8	254.0	448.6	127.0	3/8	20	50.8	26.4
IPL 2-40/140-2	50	82.5	88.3	102.5	133.4	221.7	90	40	50	177.8	292.1	453.8	146.1	3/8	20	56.0	29.8
IPL 2-52/160-2	50	82.5	88.3	102.5	133.4	221.7	90	40	50	177.8	292.1	453.8	146.1	3/8	20	56.0	30
IPL 2-60/170-2	50	82.5	88.3	102.5	133.4	221.7	90	40	50	177.8	292.1	453.8	146.1	3/8	20	56.0	35
IPL 2.5-50/260-2	65	92.5	99.0	119.0	146.1	245.1	104	40	50	177.8	342.9	457.9	171.4	3/8	25	67.3	41.4
IPL 2.5-65/270-2	65	92.5	99.0	119.0	146.1	245.1	104	40	50	177.8	342.9	457.9	171.4	3/8	25	67.3	39.4
IPL 3-56/400-2	80	100	108.0	135.0	146.1	254.1	135	40	55	177.8	355.6	459.9	177.8	3/8	25	69.3	44.4

Flange Dimensions

DN		Ø D		Ø d ₁		Ø k		n x d _L	
		[in]	[mm]	[in]	[mm]	[in]	[mm]	[units x in]	[units x mm]
1¼"	32	4¾	121	27/8	73	3½	89	2 x 9/16	2 x 14
1½"	40	4¾	121	27/8	73	3½	89	2 x 9/16	2 x 14
2"	50	5¼	133	37/16	87	4	102	4 x 9/16	4 x 14
2½"	65	7	177.8	45/8	117.6	5½	139.7	4 x ¾	4 x 19
3"	80	7½	190.5	51/8	130.4	6	152.4	4 x ¾	4 x 19