

LM, LP

Single-stage close coupled in-line circulating pumps
60 Hz



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1. Product introduction

Introduction

Grundfos LM and LP pumps are single-stage, close coupled, in-line pumps designed for reliability and performance.



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Fig. 1 Grundfos LM, LP

Applications

Grundfos LM and LP pumps are suitable for booster, circulation, transfer and water supply applications in:

- Boiler/hydronic heating
- chilled water
- air conditioning systems
- cooling towers
- washdown systems
- other industrial systems.

Features and benefits

- Maintenance-free with a low starting torque and a high operating efficiency.
- Direct-coupled to standard NEMA C-face motors for easy installation.
- High quality 431 stainless steel pump shaft.
- Stainless steel impeller.

High grade stainless steel pump shaft, neck ring, and impeller are designed for years of maintenance-free operation.

Corrosion-resistant carbon/tungsten carbide shaft seal faces provide reliable performance in open or closed systems.

Optional types of shaft seals are available for various liquid, temperature, and pressure requirements.

Pump

LM, LP in-line pumps are vertical, single-stage centrifugal pumps of the non-self-priming type fitted with standard motors and mechanical shaft seals.

Pumps with the same nominal flow rates have the same nominal port diameters (inches) and port to port length, irrespective of head and speed.

Motor stool

The motor stool forms the connection between pump housing and motor and is equipped with a manual air vent for the venting of pump housing and shaft seal chamber.

The motor side flange of the motor stool is according to NEMA.

Pump housing

Pumps feature in-line, spiral-shaped cast iron pump housing with flange dimensions to ANSI. The dimensions of the suction and discharge ports are identical.

Both pump flanges have pressure gauge tapings. A drain plug is fitted in the bottom of the pump housing.

Base plates for the LM and LP pumps are available on request.

Impeller

The LM and LP impellers are made of stainless steel with double curved blades and smooth surfaces to ensure a hydraulically correct shape of the impeller.

The impellers are machined to attain high accuracy of dimensions and to ensure good balance.

When seen from the motor fan the direction of rotation is as follows:

LM, LP: Counter-clockwise.

Motor

Baldor TEFC motors in NEMA C-face frame sizes are standard. ODP and special duty classes are optional.

Motors are rated:



The motor must be connected to a motor starter in accordance with local regulations.

Shaft seals

The pumps are fitted as standard with a single, unbalanced carbon/tungsten carbide rubber bellows shaft seal in either a 16 mm or 22 mm diameter size with EPDM elastomer (BUBE).

Optional shaft seals are also available:

- Unbalanced carbon/tungsten carbide rubber bellows shaft seal in either a 16 mm or a 22 mm diameter size with FKM elastomer (BUBV).
- Unbalanced tungsten carbide/tungsten carbide O-ring shaft seal in either a 16 mm or 22 mm diameter size with EPDM elastomer (AUUE).
- And for glycol/water mixtures: unbalanced reduced-face tungsten carbide/tungsten carbide, O-ring shaft seal in either a 16 mm or 22 mm diameter size with both EPDM and FKM elastomers (RUUE/V).

The circulation of liquid in the duct of the air vent screw ensures lubrication and cooling of the shaft seal.

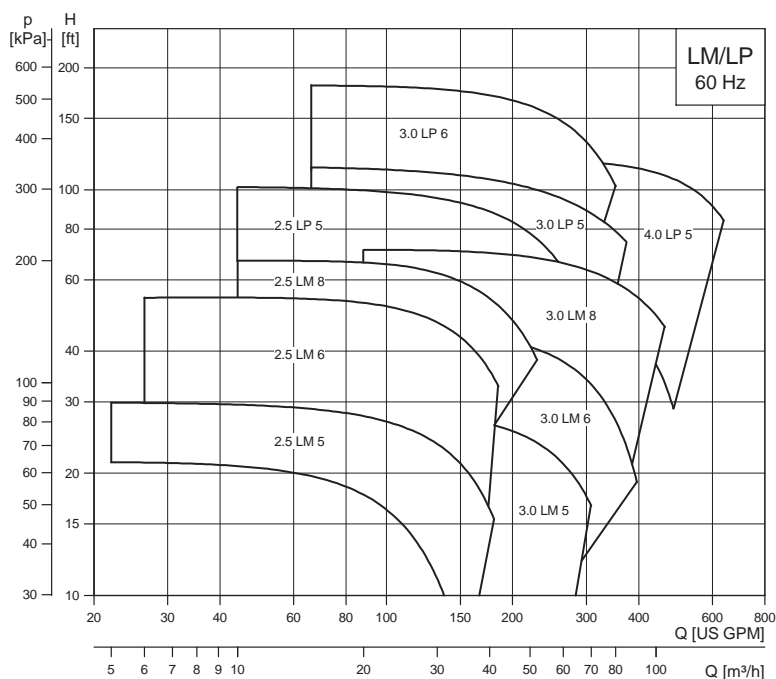
Identification

Type key LM, LP

Example	2.5	L	M	5	/	4.6	U	-	G	-	A	-	B	B	U	E
Pipe connection size																
Pump range																
M = 4-pole motor P = 2-pole motor																
Nominal impeller diameter [inches]																
Actual impeller diameter [inches]																
Pump version																
U: NEMA version																
Connection type																
G: ANSI connection																
Material																
A: Basic version																
Shaft seal																
A: O-ring seal with fixed driver																
B: Rubber bellows seal																
R: O-ring seal, type A, with reduced seal faces																
B: Carbon																
U: Tungsten Carbide																
E: EPDM																
V: FKM																

2. Product overview

Performance range



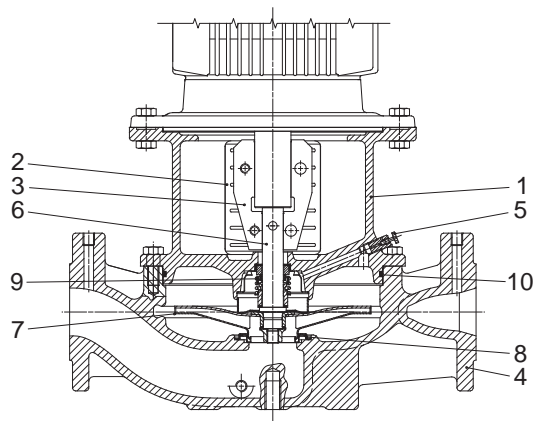
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Product range

Pump type	Flow [gpm]	Head [ft]	Ph	Hp	Flange	Page
2.5 LM5/4.6	25-155	7-21	1, 3	.75	2 1/2" ANSI	8 - 9
2.5 LM5/5.2	25-180	15-30	1, 3	1.5	2 1/2" ANSI	8 - 9
2.5 LM6/6.2	30-175	18-40	1, 3	2	2 1/2" ANSI	10 - 11
2.5 LM6/6.9	30-185	33-54	1, 3	3	2 1/2" ANSI	10 - 11
2.5 LM8/8.0	45-230	38-66	1, 3	5	2 1/2" ANSI	12 - 13
3.0 LM5/4.6	65-265	6-18	1, 3	1	3" ANSI	14 - 15
3.0 LM5/5.0	65-265	13-22	1, 3	1.5	3" ANSI	14 - 15
3.0 LM5/5.4	65-310	16-28	1, 3	2	3" ANSI	14 - 15
3.0 LM6/6.3	65-350	16-38	1, 3	3	3" ANSI	16 - 17
3.0 LM6/6.6	65-400	19-46	1, 3	5	3" ANSI	16 - 17
3.0 LM8/7.4	90-420	29-57	1, 3	5	3" ANSI	18 - 19
3.0 LM8/8.3	90-460	46-71	3	10	3" ANSI	18 - 19
2.5 LP5/4.3	60-260	30-77	1, 3	5	2 1/2" ANSI	20 - 21
2.5 LP5/4.6	60-280	36-85	1, 3	5	2 1/2" ANSI	20 - 21
2.5 LP5/5.0	60-300	46-102	1, 3	7.5	2 1/2" ANSI	20 - 21
3.0 LP5/4.9	45-350	59-95	1, 3	7.5	3" ANSI	22 - 23
3.0 LP5/5.2	45-370	73-114	1, 3	10	3" ANSI	22 - 23
3.0 LP6/5.6	65-310	55-140	3	15	3" ANSI	24 - 25
3.0 LP6/6.1	65-330	85-158	3	15	3" ANSI	24 - 25
3.0 LP6/6.6	65-350	100-180	3	20	3" ANSI	24 - 25
4.0 LP5/4.3	130-480	30-70	1, 3	7.5	4" ANSI	26 - 27
4.0 LP5/4.9	130-550	47-85	1, 3	10	4" ANSI	26 - 27
4.0 LP5/5.2	130-590	67-105	3	15	4" ANSI	26 - 27
4.0 LP5/5.5	130-630	84-124	3	20	4" ANSI	26 - 27

3. Construction

LM, LP materials of construction



Pos.	Components	Materials	AISI/ ASTM
1	Motor stool	Cast iron EN-GJL-250	
2	Coupling guard	Stainless steel	304
3	Coupling	Cast iron EN-GJS-400-15U or sintered metal	
4	Pump housing	Cast iron EN-GJL-250	
5	Air vent screw	Brass	
6	Shaft	Stainless steel	431
7	Impeller	Stainless steel	304
8	Neck ring	Stainless steel	304
9	Mechanical seal	Carbon/tungsten carbide	
10	O-ring	EPDM	

4. Operating conditions

LM, LP operating conditions

Liquid temperature:

LM, LP: +5 °F to +250 °F.

Maximum operating pressure:

LM, LP: 175 psi (12 bar)

Inlet pressure

Minimum inlet pressure according to the NPSH curve.

The maximum inlet pressure is limited by the maximum operating pressure. The inlet pressure plus the maximum boost pressure from the pump **must** always be lower than the maximum operating pressure.

5. Selection

Pumped liquids

LM, LP pumps are suitable for pumping thin, clean, non-aggressive and non-explosive liquids without solid particles or fibers.

EPDM rubber parts fitted as standard are primarily designed for water. When pumping other liquids than water or water containing mineral oil or chemicals, the rubber parts chosen must be suitable for the pumped liquid.

Selection of pumps

The standard concept of the motor selection for Grundfos in-line pumps is that the installed motor horsepower can cover the whole performance curve of the specified nominal impeller diameter, which means that it is only needed to check if the requested duty point is somewhere on the performance curve of the nominal impeller diameter which belongs to a certain standard installed motor horsepower.

The power consumption which belongs to the duty point can be taken from the power curve shown in the performance curve of the pump.

Ordering LM, LP pumps

Requested data:

- Q in US gpm
- H in ft
- pump type
- motor Hp
- voltage and frequency
- liquid and liquid temperature.

6. Installation

Installation

The pump can be placed on a vibration-absorbing material. Vibration and noise from the pump can be further reduced by fitting anti-vibration mountings either side of the pump.

Top-pull-out design

The pump head (motor, motor stool and impeller) can be removed without disruption to the pipework. The following minimum clearances must be allowed above the motor:

- Pumps fitted with motors up to and including 5 Hp require a 12 inch clearance above the motor.
- Pumps fitted with motors of 7.5 Hp and up require at least a 36-inch clearance above the motor to allow the use of lifting equipment, if required.

Connection

The pump may be installed in horizontal or vertical pipework depending on the motor size.

Pumps fitted with motors up to and including 15 Hp may be installed with the motor/pump shaft in all positions between vertical and horizontal, but the motor must never fall below the horizontal plane.

Pumps fitted with motors of 20 Hp and up should only be installed horizontally with the motor/pump shaft in vertical position.

It is advisable to fit isolating valves either side of the pump to avoid draining the system if the pump needs to be cleaned or repaired.

Installation positions

The pump can be installed with the motor (motor center line) in all positions between vertical and horizontal. To avoid water penetration of the motor and bearings, the motor must never fall below the horizontal.

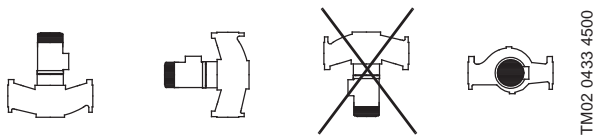
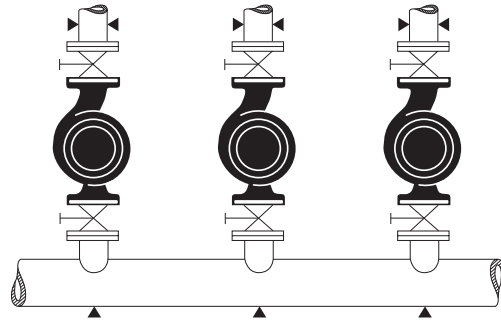


Fig. 2 Allowable installation positions

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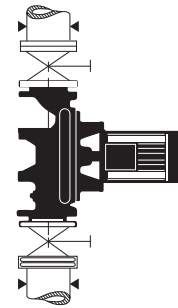
Installation options



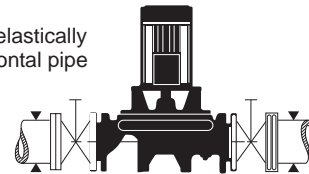
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Fig. 3 Direct mounting on a suction header (up to 7.5 Hp)

Mounting in an elastically supported vertical pipe (up to 7.5 Hp)



Mounting in an elastically supported horizontal pipe (up to 7.5 Hp)

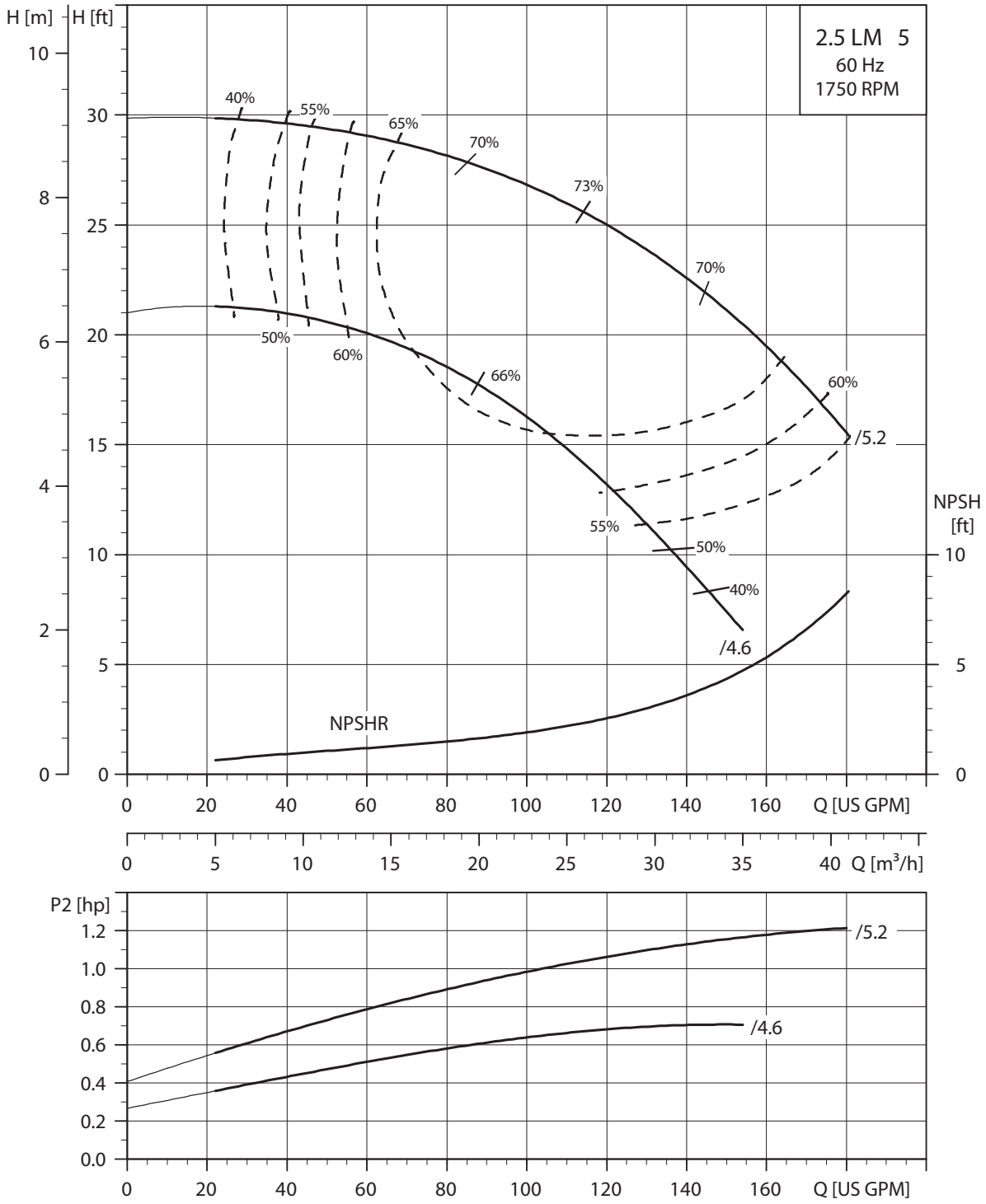


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Fig. 4 Options for mounting in piping

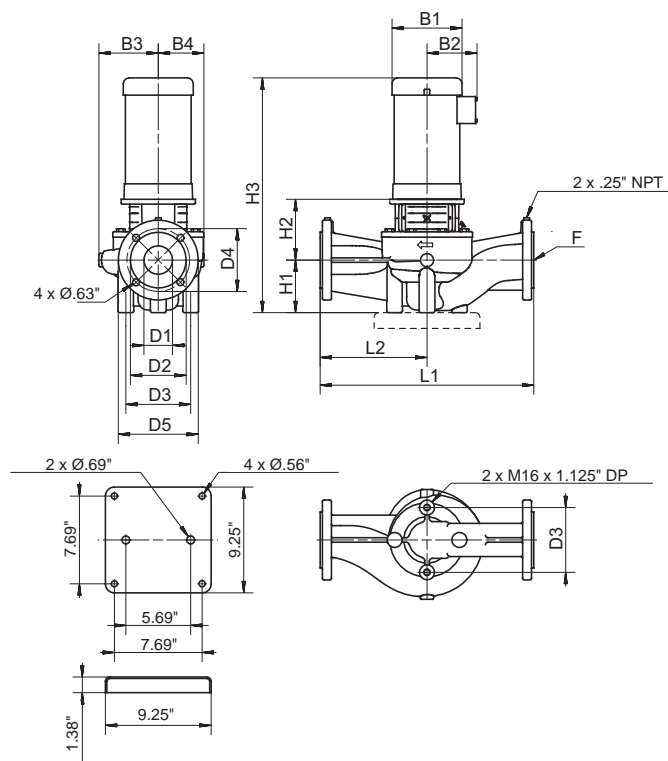
7. Curve charts and technical data

2.5 LM 5/XX



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2.5 LM 5/XX



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Electrical data, weights and dimensions

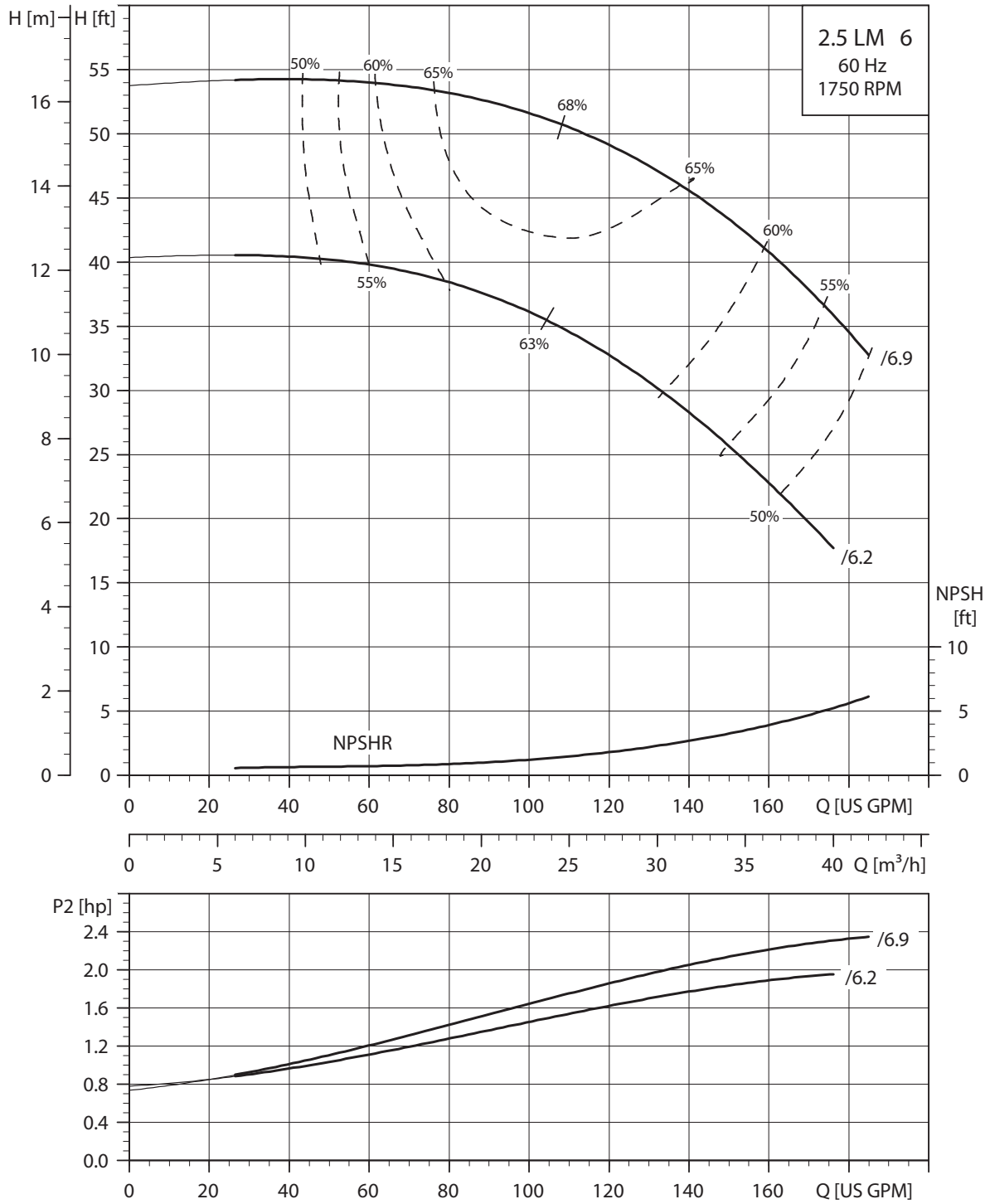
Pump type	Hp	Mtr S.F.	Ph	NEMA Frame size	Volts	Dimensions [inches (mm)]												Ship. wt. [lbs]	
						D1	D3	D4	D5	B1	B2	B3	B4	H1	H2	H3	L1		L2
2.5 LM 5/4.6	.75	1.15	1	56C	115/230	2.50 (64)	5.69 (145)	5.50 (140)	7.00 (178)	7.19 (183)	5.75 (146)	5.13 (130)	4.38 (111)	4.56 (116)	5.50 (140)	20.25 (514)	19.00 (483)	9.50 (241)	136
		1.25	3	56C	208-230/ 460, 575*	2.50 (64)	5.69 (145)	5.50 (140)	7.00 (178)	6.19 (157)	5.19 (132)	5.13 (130)	4.38 (111)	4.56 (116)	5.50 (140)	19.35 (492)	19.00 (483)	9.50 (241)	122
2.5 LM 5/5.2	1.5	1.15	1	56C	115/ 208-230	2.50 (64)	5.69 (145)	5.50 (140)	7.00 (178)	7.19 (183)	5.75 (146)	5.13 (130)	4.38 (111)	4.56 (116)	5.50 (140)	22.12 (562)	19.00 (483)	9.50 (241)	161
		1.15	3	56C	208-230/ 460, 575*	2.50 (64)	5.69 (145)	5.50 (140)	7.00 (178)	7.19 (183)	5.75 (146)	5.13 (130)	4.38 (111)	4.56 (116)	5.50 (140)	21.23 (539)	19.00 (483)	9.50 (241)	146

Technical data

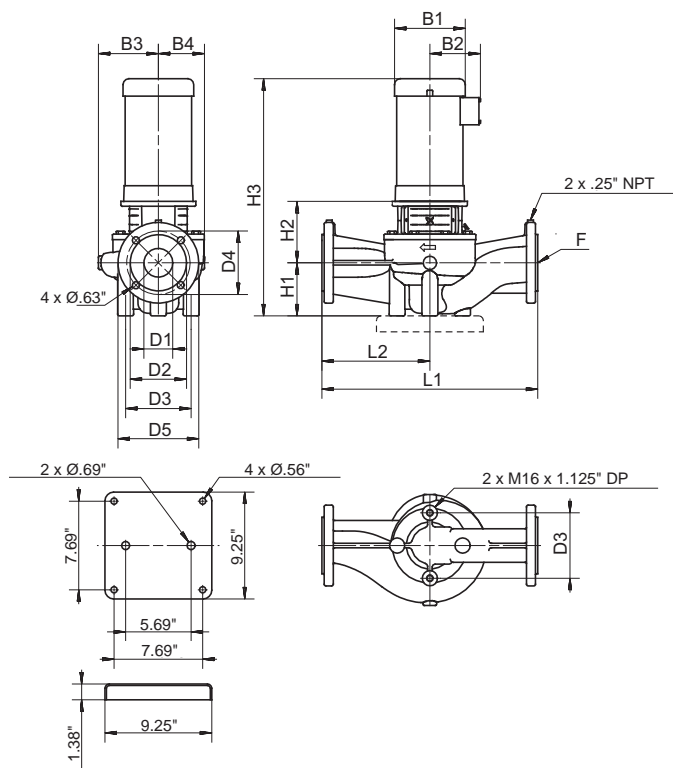
Nominal flow range	25 - 180 U.S. gpm
Min. flow rate	15 U.S. gpm
Head range	7 - 30 ft
Motors	TEFC (standard) / ODP (optional)
Temp. range [°F (°C)]	+5° to +250° (-15° to +121°)
Max. working pressure	175 psi
Flanges:	2 1/2" ANSI 125 lb. F.F.

*575V available on request.

2.5 LM 6/XX



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Electrical data, weights and dimensions

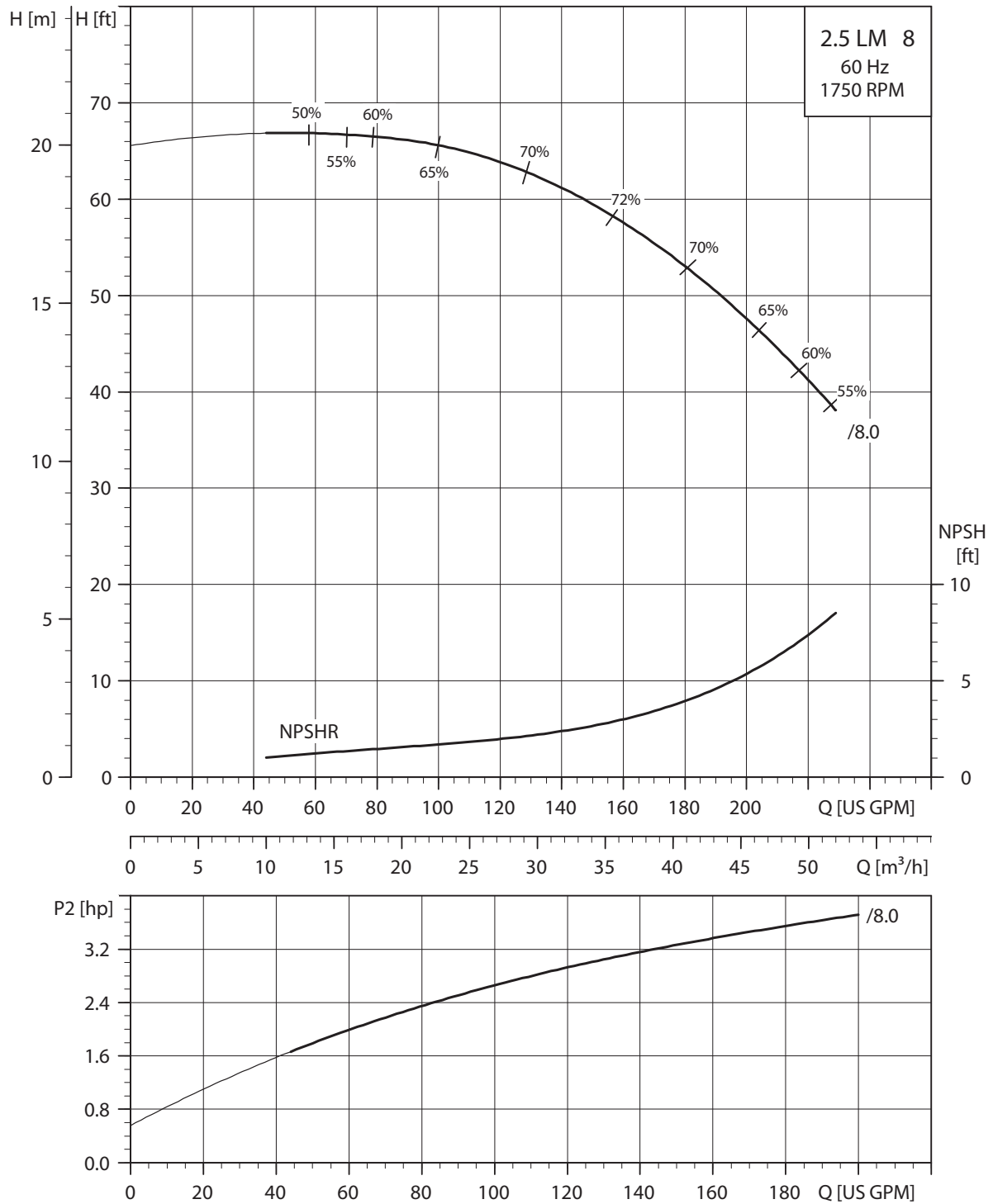
Pump type	Hp	Mtr S.F.	Ph	NEMA Frame size	Volts	Dimensions [inches (mm)]												Ship. wt. [lbs]	
						D1	D3	D4	D5	B1	B2	B3	B4	H1	H2	H3	L1		L2
2.5 LM 6/6.2	2	1.15	1	56C	115/230	2.50 (64)	5.69 (145)	5.50 (140)	7.00 (178)	7.19 (183)	5.75 (146)	6.18 (157)	5.94 (151)	4.56 (126)	5.50 (140)	22.13 (562)	19.00 (483)	9.50 (241)	163
			3	56C	208-230/ 460, 575*	2.50 (64)	5.69 (145)	5.50 (140)	7.00 (178)	7.19 (183)	5.75 (146)	6.18 (157)	5.94 (151)	4.56 (126)	5.50 (140)	21.23 (539)	19.00 (483)	9.50 (241)	159
2.5 LM 6/6.9	3	1.15	1	182TC	115/230	2.50 (64)	5.69 (145)	5.50 (140)	7.00 (178)	7.19 (183)	5.75 (146)	6.18 (157)	5.94 (151)	4.56 (126)	6.06 (154)	24.30 (617)	19.00 (483)	9.50 (241)	202
			3	182TC	208-230/ 460, 575*	2.50 (64)	5.69 (145)	5.50 (140)	7.00 (178)	7.19 (183)	5.75 (146)	6.18 (157)	5.94 (151)	4.56 (126)	6.06 (154)	24.30 (617)	19.00 (483)	9.50 (241)	180

Technical data

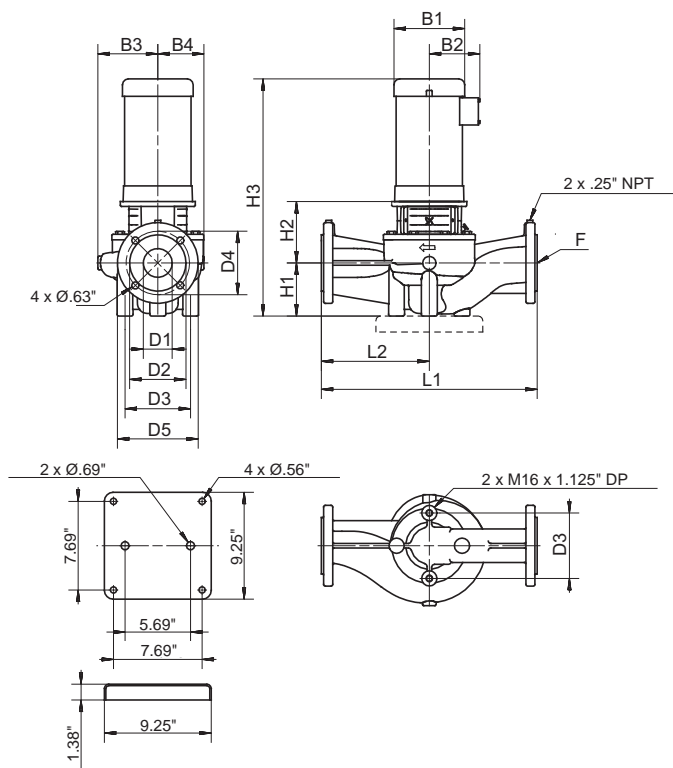
Nominal flow range	30 - 185 U.S. gpm
Min. flow rate	15 U.S. gpm
Head range	18 - 54 ft
Motors	TEFC (standard) / ODP (optional)
Temp. range [°F (°C)]	+5° to +250° (-15° to +121°)
Max. working pressure	175 psi
Flanges:	2 1/2" ANSI 125 lb. F.F.

*575V available on request.

2.5 LM 8/XX



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Electrical data, weights and dimensions

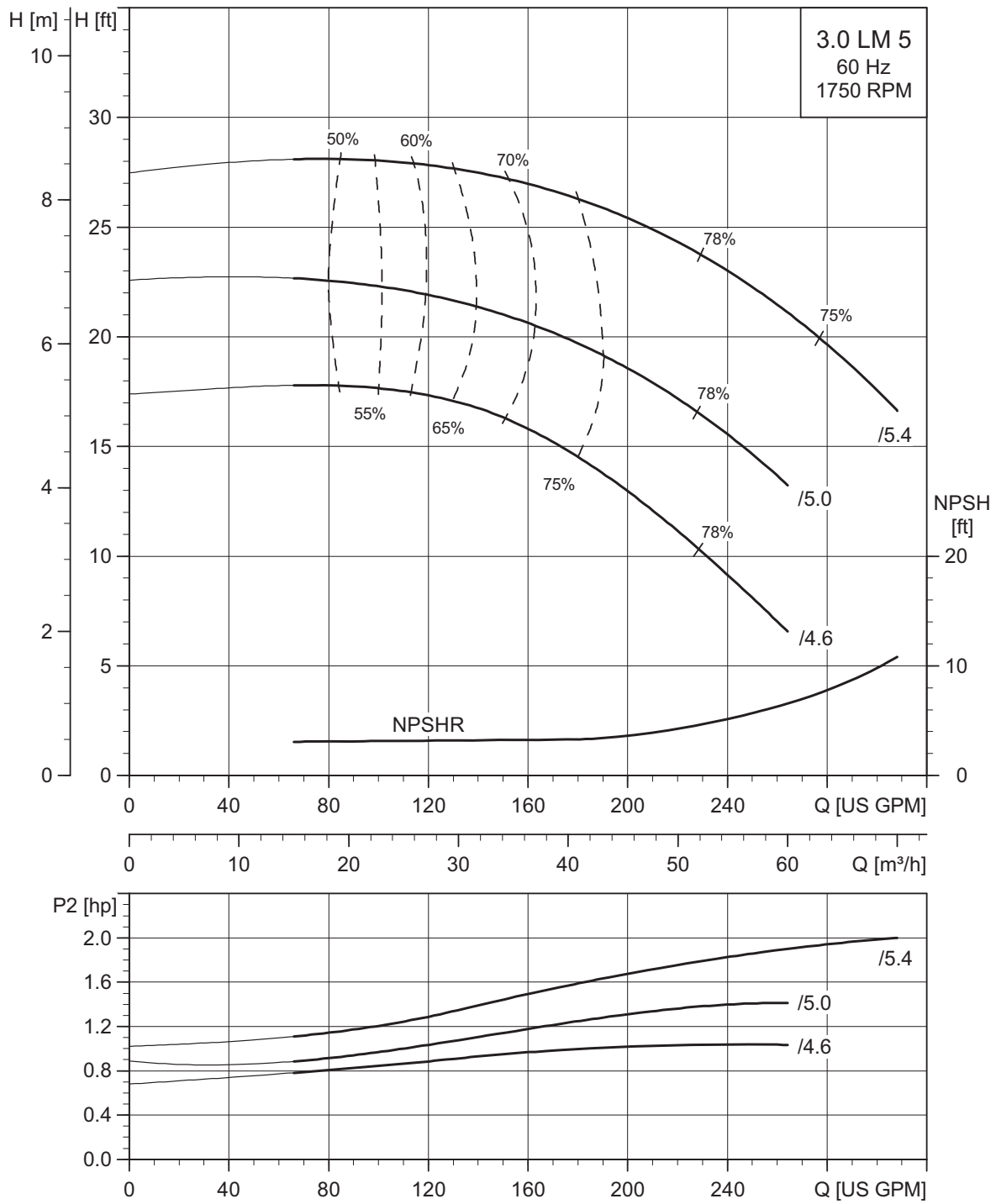
Pump type	Hp	Mtr S.F.	Ph	NEMA Frame size	Volts	Dimensions [inches (mm)]												Ship. wt. [lbs]	
						D1	D3	D4	D5	B1	B2	B3	B4	H1	H2	H3	L1		L2
2.5 LM 8/8.0	5.0	1.15	1	215TC	230	2.50 (64)	5.69 (145)	5.50 (140)	7.00 (178)	10.62 (270)	8.06 (205)	6.18 (157)	5.94 (151)	4.56 (116)	7.38 (187)	27.22 (691)	19.00 (483)	9.50 (241)	258
			3	184TC	208-230/ 460, 575*	2.50 (64)	5.69 (145)	5.50 (140)	7.00 (178)	8.60 (218)	6.97 (177)	6.18 (157)	5.94 (151)	4.56 (116)	7.38 (187)	25.62 (651)	19.00 (483)	9.50 (241)	213

Technical data

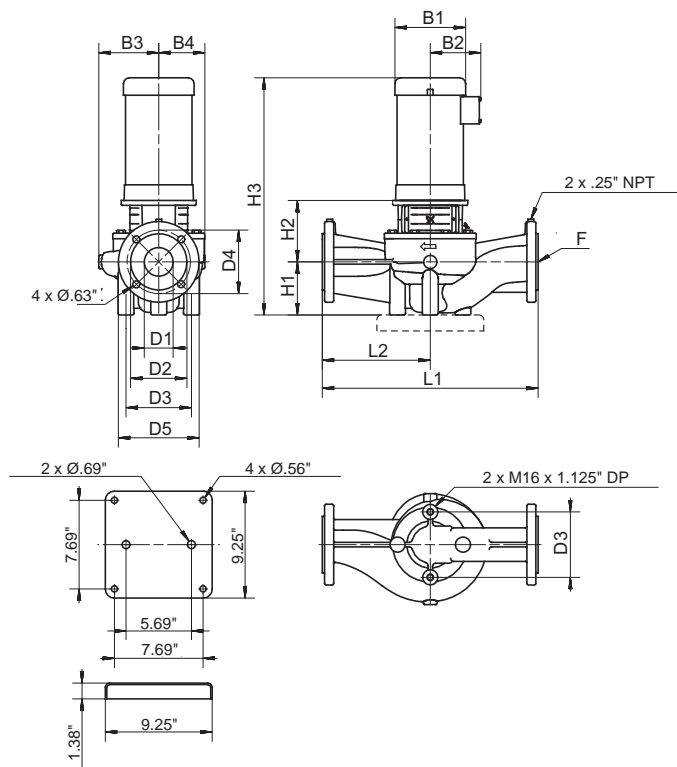
Nominal flow range	45 - 230 U.S. gpm
Min. flow rate	15 U.S. gpm
Head range	38 - 66 ft
Motors	TEFC (standard) / ODP (optional)
Temp. range [°F (°C)]	+5° to +250° (-15° to +121°)
Max. working pressure	175 psi
Flanges:	2 1/2" ANSI 125 lb. F.F.

*575V available on request.

3.0 LM 5/XX



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Electrical data, weights and dimensions

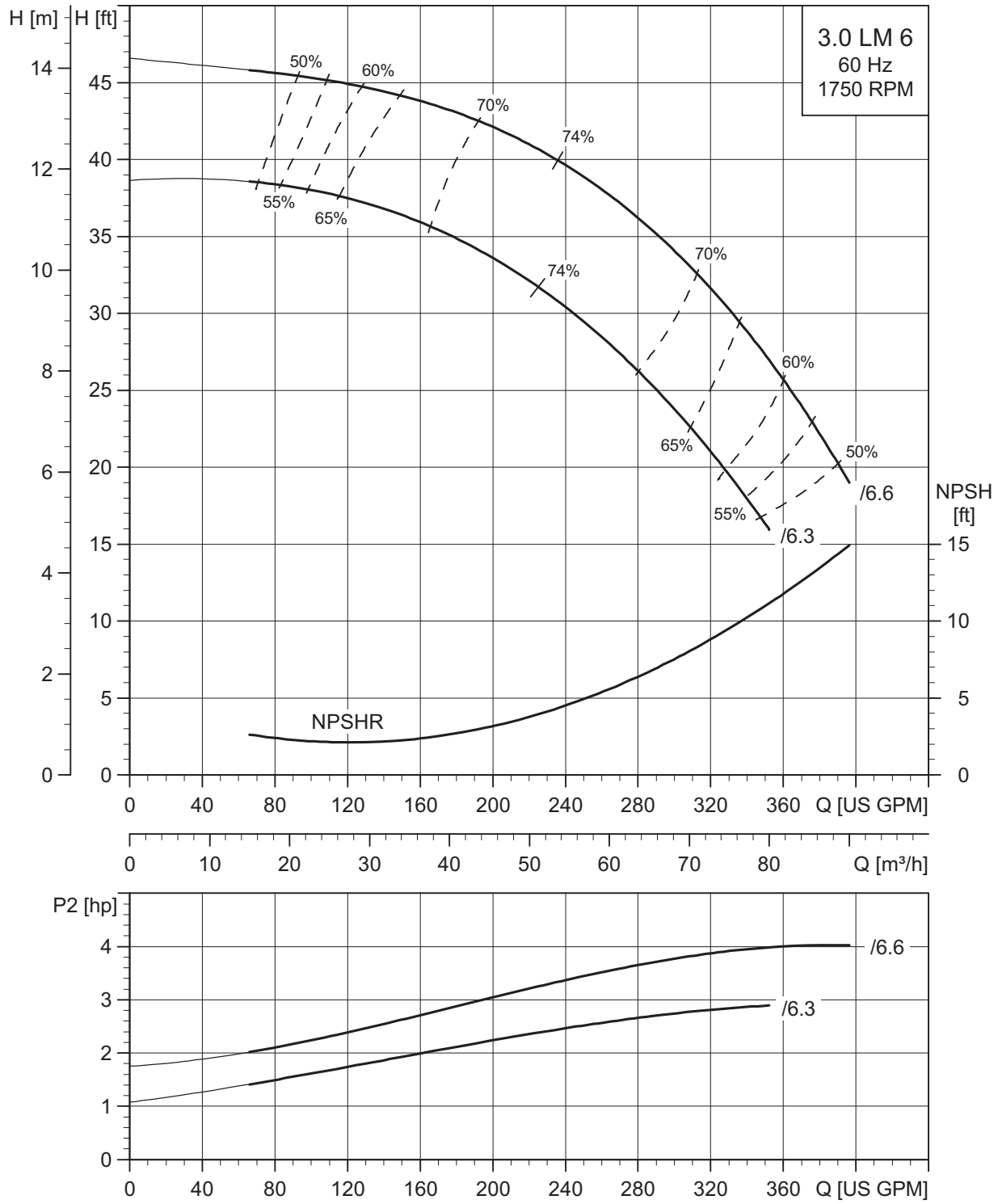
Pump type	Hp	Mtr S.F.	Ph	NEMA Frame size	Volts	Dimensions [inches (mm)]												Ship. wt. [lbs]	
						D1	D3	D4	D5	B1	B2	B3	B4	H1	H2	H3	L1		L2
3.0 LM 5/4.6	1.0	1.15	1	56C	115/230	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	7.19 (183)	5.75 (146)	6.25 (159)	4.89 (124)	5.13 (130)	5.50 (140)	21.82 (554)	21.00 (533)	10.50 (267)	130
	1.0	1.25	3	56C	208-230/4 60, 575*	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	7.19 (183)	5.75 (146)	6.25 (159)	4.89 (124)	5.13 (130)	5.50 (140)	20.80 (528)	21.00 (533)	10.50 (267)	153
3.0 LM 5/5.0	1.5	1.15	1	56C	115/ 208-230	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	7.19 (183)	5.75 (146)	6.25 (159)	4.89 (124)	5.13 (130)	5.50 (140)	22.69 (576)	21.00 (533)	10.50 (267)	179
	1.5	1.15	3	56C	208-230/4 60, 575*	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	7.19 (183)	5.75 (146)	6.25 (159)	4.89 (124)	5.13 (130)	5.50 (140)	21.80 (574)	21.00 (533)	10.50 (267)	162
3.0 LM 5/5.4	2.0	1.15	1	56C	115/230	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	7.19 (183)	5.75 (146)	6.25 (159)	4.89 (124)	5.13 (130)	5.50 (140)	22.69 (576)	21.00 (533)	10.50 (267)	179
	2.0	1.15	3	56C	208-230/4 60, 575*	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	7.19 (183)	5.75 (146)	6.25 (159)	4.89 (124)	5.13 (130)	5.50 (140)	21.80 (554)	21.00 (533)	10.50 (267)	151

Technical data

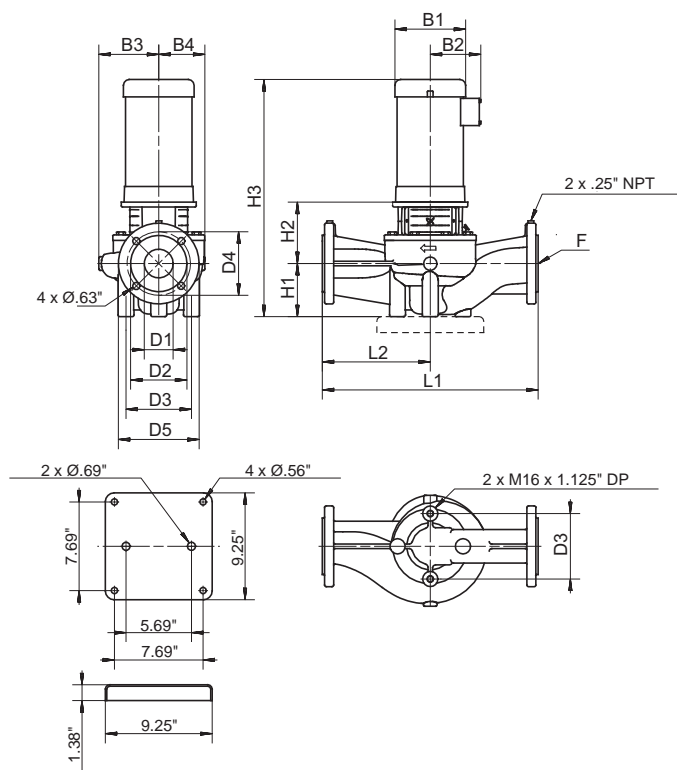
Nominal flow range	65 - 310 U.S. gpm
Min. flow rate	25 U.S. gpm
Head range	6 - 28 ft
Motors	TEFC (standard) / ODP (optional)
Temp. range [°F (°C)]	+5° to +250° (-15° to +121°)
Max. working pressure	175 psi
Flanges:	2 1/2" ANSI 125 lb. F.F.

*575V available on request.

3.0 LM 6/XX



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Electrical data, weights and dimensions

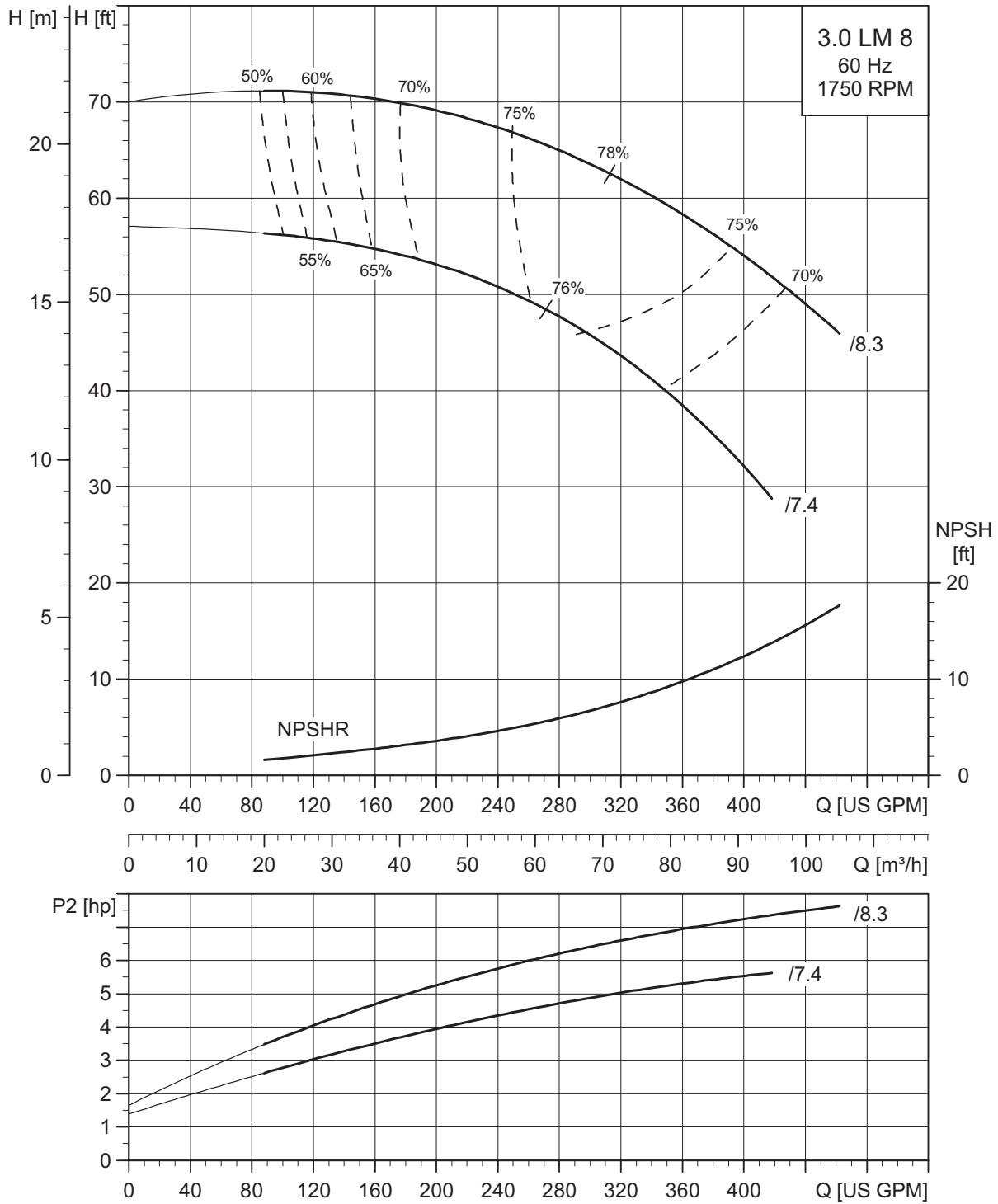
Pump type	Hp	Mtr S.F.	Ph	NEMA Frame size	Volts	Dimensions [inches (mm)]												Ship. wt. [lbs]	
						D1	D3	D4	D5	B1	B2	B3	B4	H1	H2	H3	L1		L2
3.0 LM 6/6.3	3.0	1.15	1	184TC	115/230	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	8.60 (218)	6.87 (175)	7.13 (181)	5.94 (151)	5.13 (130)	7.56 (192)	26.37 (670)	21.00 (533)	10.50 (267)	205
			3	182TC	208-230, 460, 575*	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	7.19 (183)	5.75 (146)	7.13 (181)	5.94 (151)	5.13 (130)	7.56 (192)	26.37 (670)	21.00 (533)	10.50 (267)	200
3.0 LM 6/6.6	5.0	1.15	1	215TC	230	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	10.62 (270)	8.06 (205)	7.13 (181)	5.94 (151)	5.13 (130)	8.88 (225)	29.29 (744)	21.00 (533)	10.50 (267)	281
			3	184TC	208-230, 460, 575*	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	8.60 (218)	6.97 (177)	7.13 (181)	5.94 (151)	5.13 (130)	8.88 (225)	27.69 (703)	21.00 (533)	10.50 (267)	232

Technical data

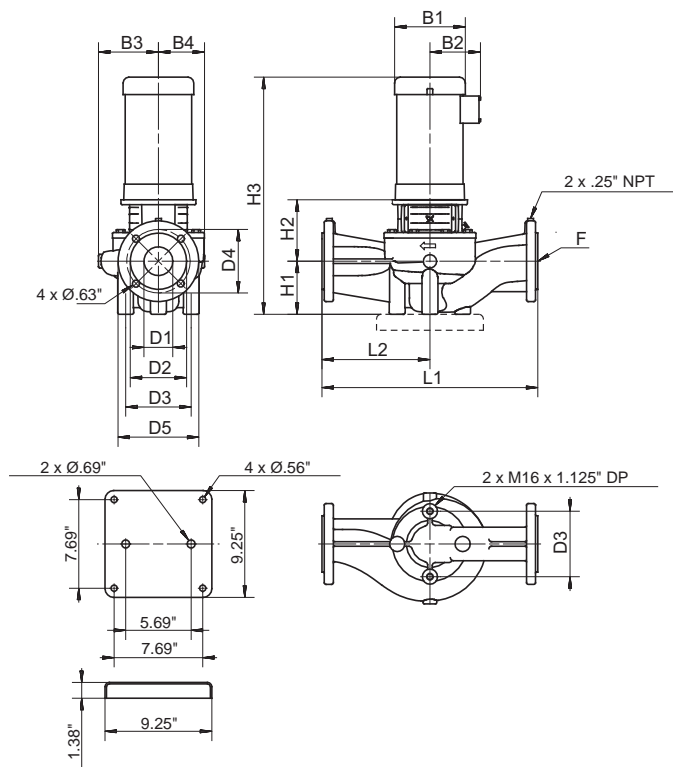
Nominal flow range	65 - 400 U.S. gpm
Min. flow rate	25 U.S. gpm
Head range	16 - 46 ft
Motors	TEFC (standard); ODP (optional)
Temp. range [°F (°C)]	+5° to +250° (-15° to +121°)
Max. working pressure	175 psi
Flanges:	3" ANSI 125 lb. F.F.

*575V available on request.

3.0 LM 8/XX



TM02 4971 0211



TM02 4964 0211

Electrical data, weights and dimensions

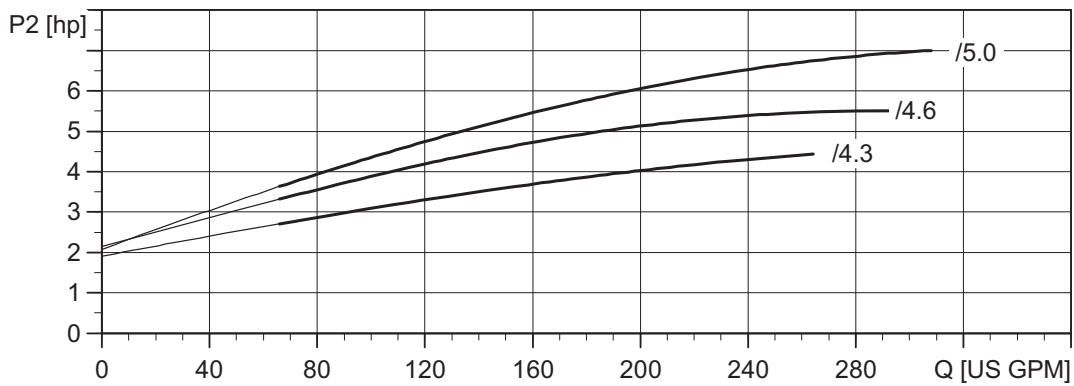
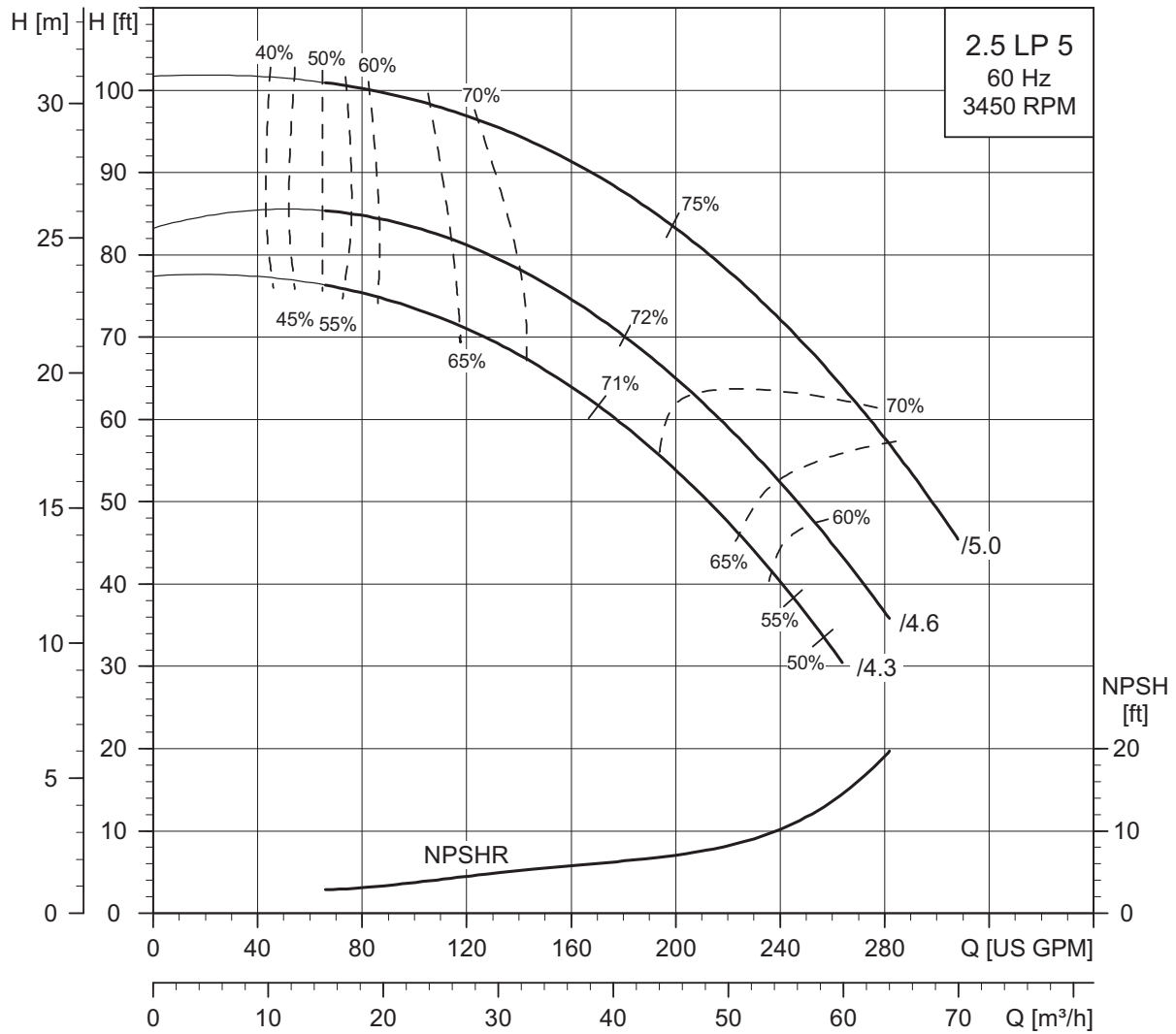
Pump type	Hp	Mtr S.F.	Ph	NEMA Frame size	Volts	Dimensions [inches (mm)]												Ship. wt. [lbs]	
						D1	D3	D4	D5	B1	B2	B3	B4	H1	H2	H3	L1		L2
3.0 LM 8/7.4	5.0	1.15	1	215TC	230	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	10.62 (270)	8.06 (205)	7.13 (181)	5.94 (151)	5.13 (130)	8.88 (225)	29.29 (744)	21.00 (533)	10.50 (267)	301
			3	184TC	208-230/ 460, 575*	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	8.60 (218)	6.97 (177)	7.13 (181)	5.94 (151)	5.13 (130)	8.88 (225)	27.69 (703)	21.00 (533)	10.50 (267)	241
3.0 LM 8/8.3	10	1.15	3	215TCZ	208-230/ 460, 575*	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	10.28 (261)	8.06 (205)	7.13 (181)	5.94 (151)	5.13 (130)	9.88 (251)	31.42 (798)	21.00 (533)	10.50 (267)	281

Technical data

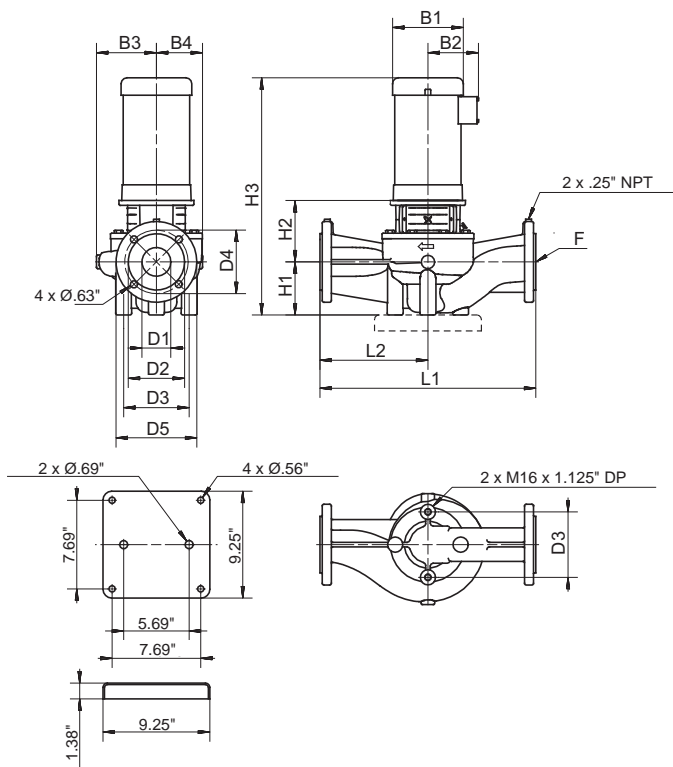
Nominal flow range	90 - 460 U.S. gpm
Min. flow rate	25 U.S. gpm
Head range	29 - 71 ft
Motors	TEFC (standard) / ODP (optional)
Temp. range [°F (°C)]	+5° to +250° (-15° to +121°)
Max. working pressure	175 psi
Flanges:	3" ANSI 125 lb. F.F.

*575V available on request.

2.5 LP 5/XX



TM02 4972 0211



TM02 4964 0211

Electrical data, weights and dimensions

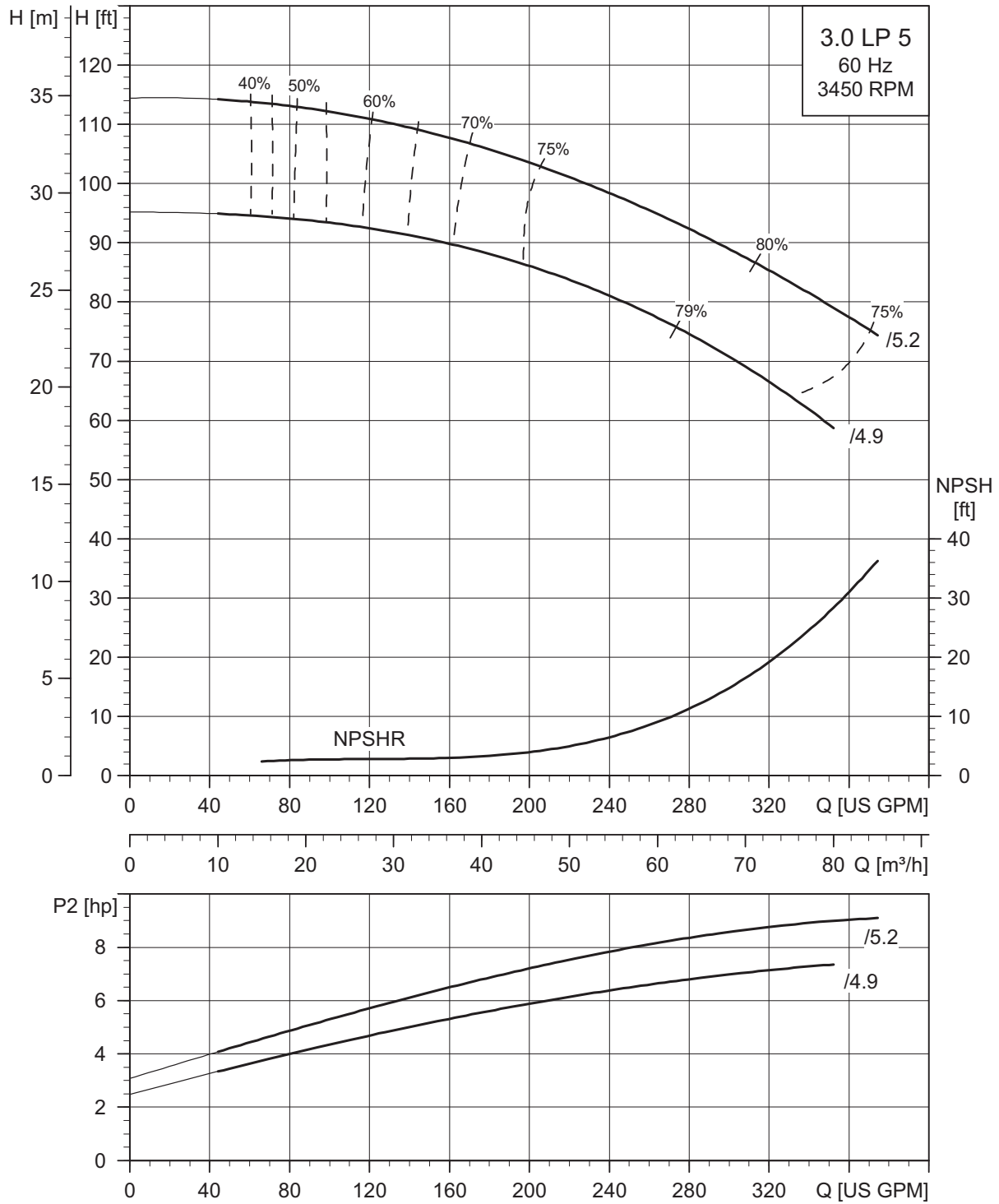
Pump type	Hp	Mtr S.F.	Ph	NEMA Frame size	Volts	Dimensions [inches (mm)]												Ship. wt. [lbs]	
						D1	D3	D4	D5	B1	B2	B3	B4	H1	H2	H3	L1		L2
2.5 LP 5/4.3	5.0	1.15	1	213TC	208-230	2.50 (64)	5.69 (145)	5.50 (140)	7.00 (178)	10.62 (270)	7.46 (190)	5.13 (130)	4.38 (111)	4.56 (116)	6.00 (152)	25.84 (656)	19.00 (483)	9.50 (241)	209
			3	184TC	208-230/460, 575*	2.50 (64)	5.69 (145)	5.50 (140)	7.00 (178)	8.66 (220)	5.28 (134)	5.13 (130)	4.38 (111)	4.56 (116)	6.00 (152)	26.07 (662)	19.00 (483)	9.50 (241)	185
2.5 LP 5/4.6	5.0	1.15	1	213TC	208-230	2.50 (64)	5.69 (145)	5.50 (140)	7.00 (178)	10.62 (270)	7.46 (190)	5.13 (130)	4.38 (111)	4.56 (116)	6.00 (152)	25.84 (656)	19.00 (483)	9.50 (241)	214
			3	184TC	208-230/460, 575*	2.50 (64)	5.69 (145)	5.50 (140)	7.00 (178)	8.66 (220)	5.28 (134)	5.13 (130)	4.38 (111)	4.56 (116)	6.00 (152)	26.07 (662)	19.00 (483)	9.50 (241)	185
2.5 LP 5/5.0	7.5	1.15	1	213TC	208-230	2.50 (64)	5.69 (145)	5.50 (140)	7.00 (178)	10.23 (260)	7.62 (194)	5.13 (130)	4.38 (111)	4.56 (116)	6.00 (152)	25.84 (656)	19.00 (483)	9.50 (241)	221
			3	215TC	208-230/460, 575*	2.50 (64)	5.69 (145)	5.50 (140)	7.00 (178)	10.23 (260)	8.06 (205)	5.13 (130)	4.38 (111)	4.56 (116)	6.00 (152)	25.84 (656)	19.00 (483)	9.50 (241)	201

Technical data

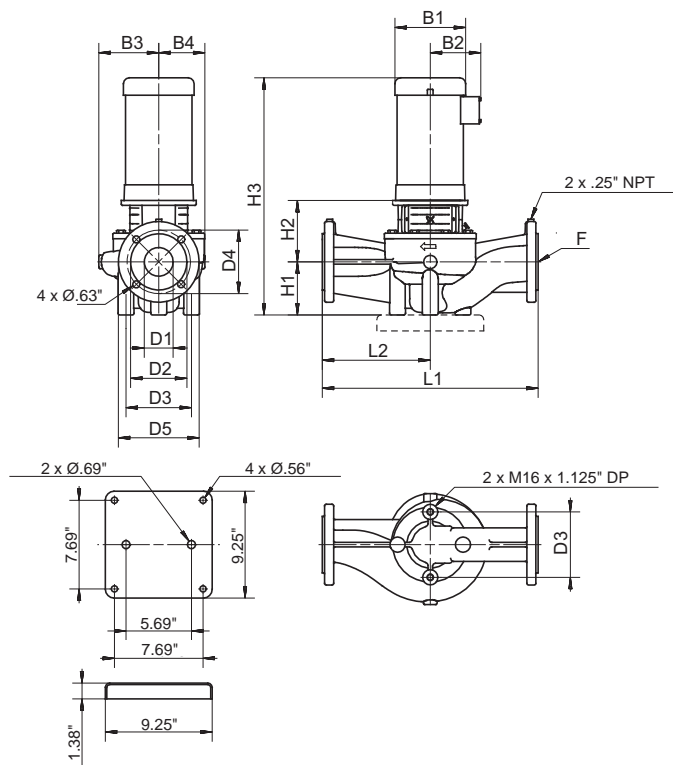
Nominal flow range	60 - 300 U.S. gpm
Min. flow rate	15 U.S. gpm
Head range	30 - 102 ft
Motors	TEFC (standard) / ODP (optional)
Temp. range [°F (°C)]	+5° to +250° (-15° to +121°)
Max. working pressure	175 psi
Flanges:	2 1/2" ANSI 125 lb. F.F.

*575V available on request.

3.0 LP 5/XX



TM02 4973 0211



TM02 4964 0211

Electrical data, weights and dimensions

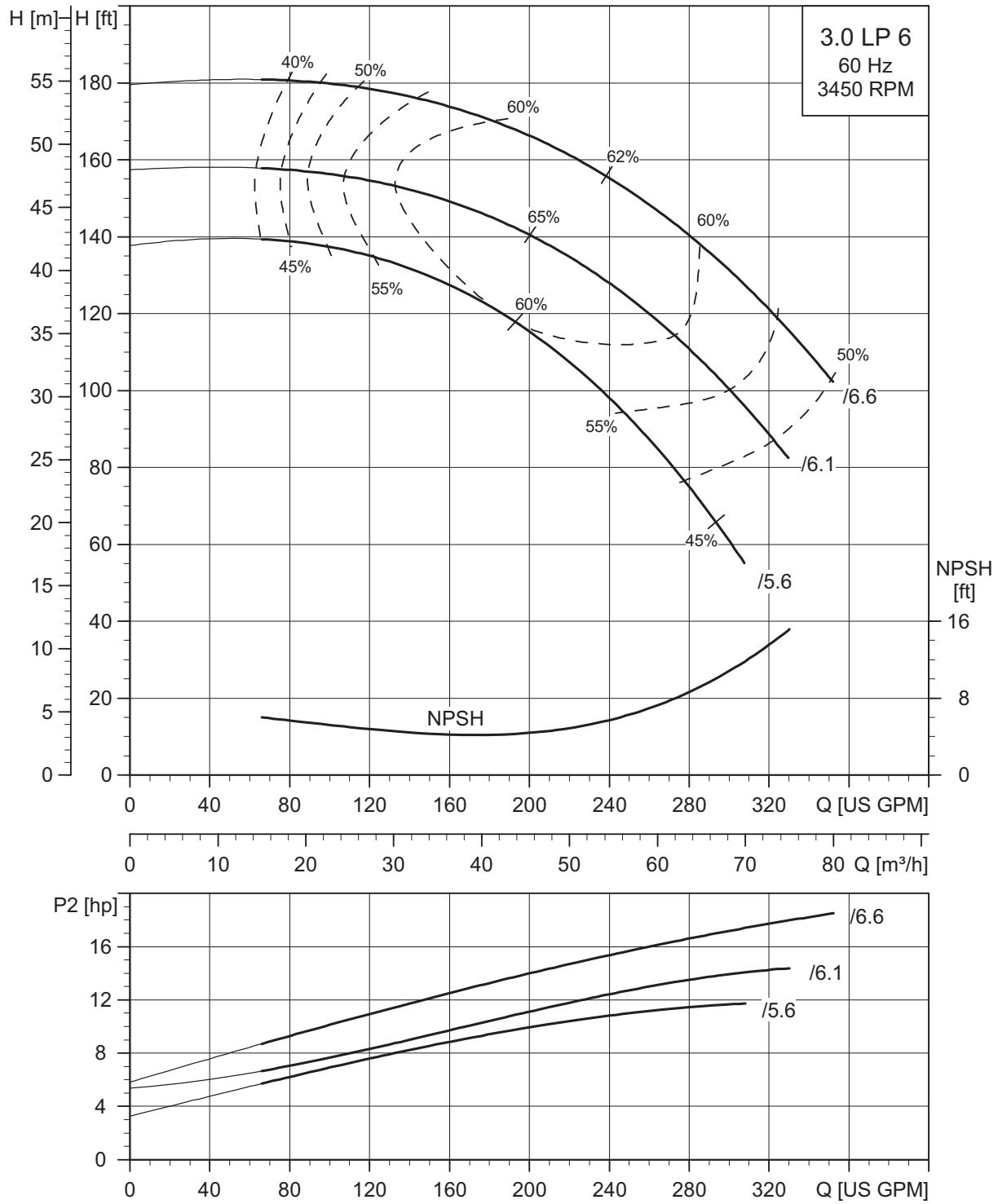
Pump type	Hp	Mtr S.F.	Ph	NEMA Frame size	Volts	Dimensions [inches (mm)]													Ship. wt. [lbs]
						D1	D3	D4	D5	B1	B2	B3	B4	H1	H2	H3	L1	L2	
3.0 LP 5/4.9	7.5	1.15	1	213TC	208	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	10.23 (260)	7.62 (194)	6.25 (159)	4.88 (124)	5.13 (130)	7.94 (202)	28.35 (720)	21.00 (533)	10.50 (267)	229
			3	215TC	208-230/4 60, 575	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	10.23 (260)	8.06 (205)	6.25 (159)	4.88 (124)	5.13 (130)	7.94 (202)	28.35 (720)	21.00 (533)	10.50 (267)	213
3.0 LP 5/5.2	10	1.15	1	215TC	230	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	10.23 (260)	10.3 (262)	6.25 (159)	4.88 (124)	5.13 (130)	7.94 (202)	28.89 (734)	21.00 (533)	10.50 (267)	260
			3	215TC	208-230/4 60, 575	3.00 (76)	5.69 (145)	6.00 (152)	7.50 (191)	10.23 (260)	8.06 (205)	6.25 (159)	4.88 (124)	5.13 (130)	7.94 (202)	28.35 (720)	21.00 (533)	10.50 (267)	270

Technical data

Nominal flow range	45 - 370 U.S. gpm
Min. flow rate	25 U.S. gpm
Head range	59 - 114 ft
Motors	TEFC (standard); ODP (optional)
Temp. range [°F (°C)]	+5° to +250° (-15° to +121°)
Max. working pressure	175 psi
Flanges:	3" ANSI 125 lb. F.F.

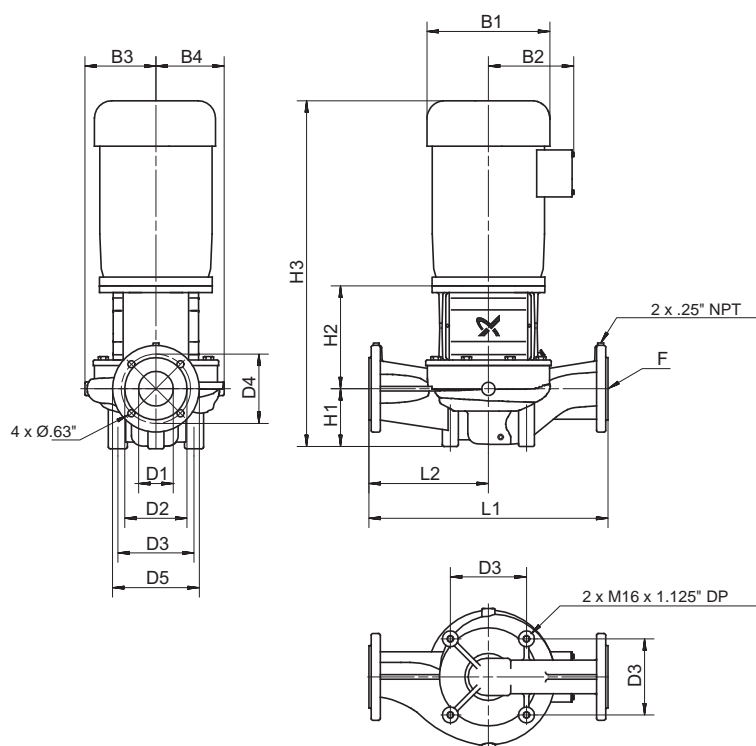
*575V available on request.

3.0 LP 6/XX



TM02 4974 0211

3.0 LP 6/XX



TM02 4965 1902

Electrical data, weights and dimensions

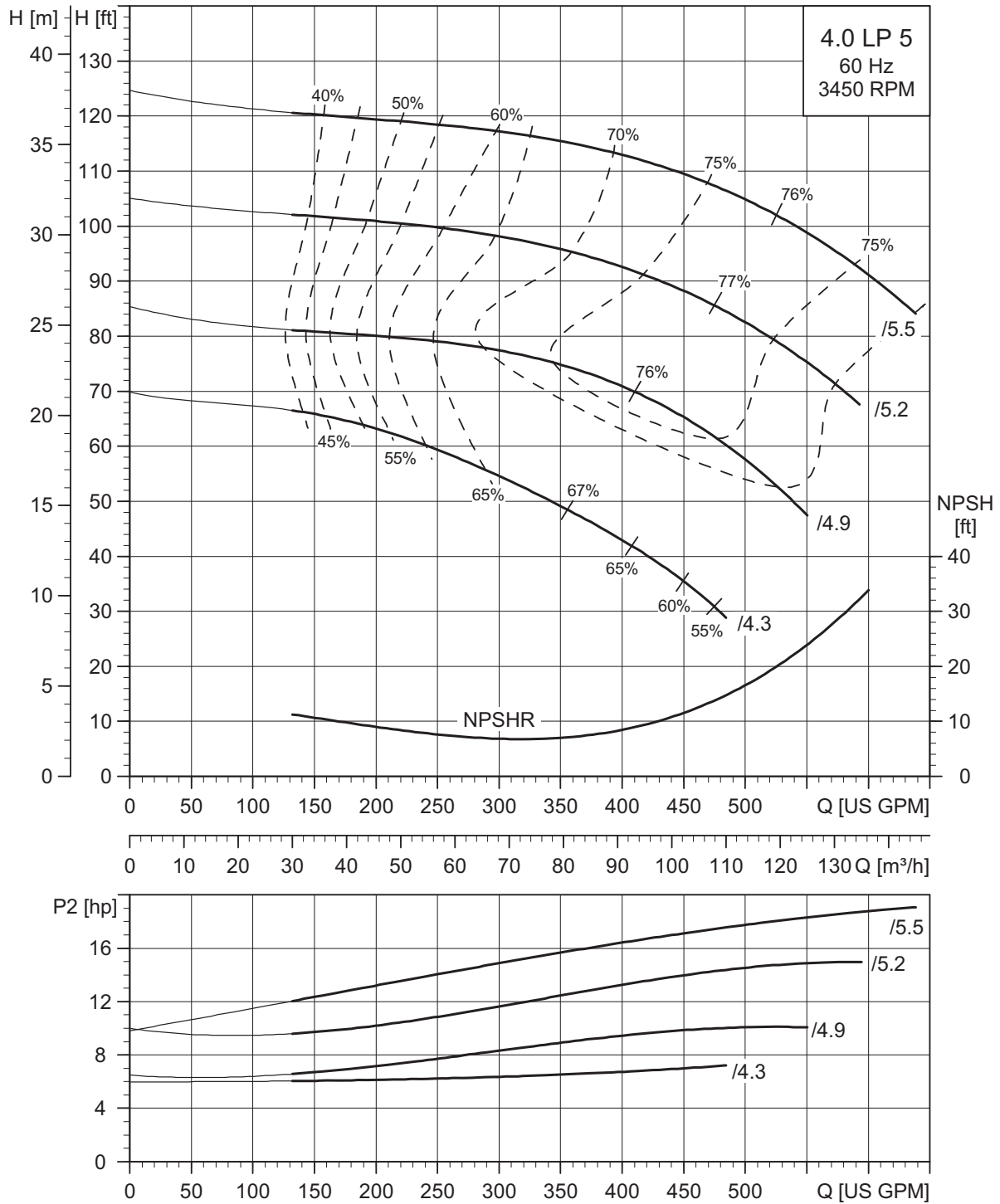
Pump type	Hp	Mtr S.F.	Ph	NEMA Frame size	Volts	Dimensions [inches (mm)]													Ship. wt. [lbs]
						D1	D3	D4	D5	B1	B2	B3	B4	H1	H2	H3	L1	L2	
3.0 LP 6/5.6	15	1.15	3	254TC	208-230	3.00	6.63	6.00	7.50	10.23	8.69	6.19	5.94	5.13	8.44	30.38	21.00	10.50	312
					460/575*	(76)	(168)	(152)	(191)	(260)	(221)	(157)	(151)	(130)	(214)	(772)	(533)	(267)	
3.0 LP 6/6.1	15	1.15	3	254TC	208-230	3.00	6.63	6.00	7.50	10.23	8.69	6.19	5.94	5.13	8.44	30.38	21.00	10.50	312
					460/575*	(76)	(168)	(152)	(191)	(260)	(221)	(157)	(151)	(130)	(214)	(772)	(533)	(267)	
3.0 LP 6/6.6	20	1.15	3	254TC	230/460,	3.00	6.63	6.00	7.50	13.26	9.49	6.19	5.94	5.13	8.44	33.76	21.00	10.50	415
					575*	(76)	(168)	(152)	(191)	(337)	(241)	(157)	(151)	(130)	(214)	(858)	(533)	(267)	

Technical data

Nominal flow range	65 - 350 U.S. gpm
Min. flow rate	25 U.S. gpm
Head range	55 - 180 ft
Motors	TEFC (standard); ODP (optional)
Temp. range [°F (°C)]	+5° to +250° (-15° to +121°)
Max. working pressure	175 psi
Flanges:	2 1/2" ANSI 125 lb. F.F.

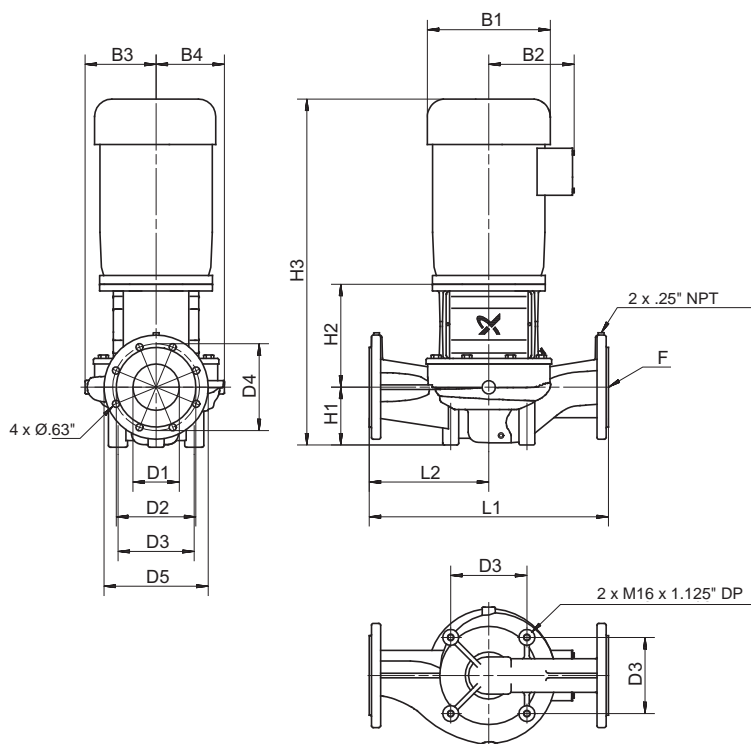
*575V available on request.

4.0 LP 5/XX



TM02 4975 0211

4.0 LP 5/XX



TM02 4963 0211

Electrical data, weights and dimensions

Pump type	Hp	Mtr S.F.	Ph	NEMA Frame size	Volts	Dimensions [inches (mm)]										Ship. wt. [lbs]			
						D1	D3	D4	D5	B1	B2	B3	B4	H1	H2		H3	L1	L2
4.0 LP 5/4.3	7.5	1.15	1	213TC	208-230	4 (102)	6.63 (168)	7.50 (191)	7.50 (191)	10.23 (260)	7.62 (194)	6.75 (171)	5.56 (141)	5.13 (130)	9.81 (249)	30.22 (768)	21.00 (533)	10.50 (267)	246
	7.5	1.15	3	215TC	208-230/ 460, 575*	4 (102)	6.63 (168)	7.50 (191)	7.50 (191)	10.23 (260)	8.06 (205)	6.75 (171)	5.56 (141)	5.13 (130)	9.81 (249)	30.22 (768)	21.00 (533)	10.50 (267)	208
4.0 LP 5/4.9	10	1.15	1	215TC	230	4 (102)	6.63 (168)	7.50 (191)	7.50 (191)	10.23 (260)	10.30 (262)	6.75 (171)	5.56 (141)	5.13 (130)	9.81 (249)	30.76 (781)	21.00 (533)	10.50 (267)	265
	10	1.15	3	215TC	208-230/ 460, 575*	4 (102)	6.63 (168)	7.50 (191)	7.50 (191)	10.23 (260)	8.06 (205)	6.75 (171)	5.56 (141)	5.13 (130)	9.81 (249)	30.22 (768)	21.00 (533)	10.50 (267)	309
4.0 LP 5/5.2	15	1.15	3	254TC	208-230/ 460, 575*	4 (102)	6.63 (168)	7.50 (191)	7.50 (191)	10.23 (260)	8.69 (221)	6.75 (171)	5.56 (141)	5.13 (130)	9.81 (249)	31.75 (807)	21.00 (533)	10.50 (267)	334
4.0 LP 5/5.5	20	1.15	3	284TC	208-230/ 460, 575*	4 (102)	6.63 (168)	7.50 (191)	7.50 (191)	13.26 (337)	9.49 (241)	6.75 (171)	5.56 (141)	5.13 (130)	9.00 (229)	34.32 (872)	21.00 (533)	10.50 (267)	440

Technical data

Nominal flow range	130 - 630 U.S. gpm
Min. flow rate	50 U.S. gpm
Head range	30 - 124 ft
Motors	TEFC (standard); ODP (optional)
Temp. range [°F (°C)]	+5° to +250° (-15° to +121°)
Max. working pressure	175 psi
Flanges:	4" ANSI 125 lb. F.F.

*575V available on request.

LM 4-pole motor data

LM 4-pole motor data													
Product number	Power [Hp]	Ph	Service factor	Supply voltage [V]	Frame size	Eff [%]	Efficiency rating*	Temp. class	KVA code	FLA	SFA	LRA	Motor mfg.
85701003	0.75	1	1.25	115/208-230	56C	68	not defined	B	N	11/6.0-5.5	12.6/7.0-6.3	38.3-34.6/17.3	Baldor
85601003	0.75	3	1.25	208-230/460	56C	75.5	not defined	B	K	3.2-3.0/1.5	3.6-3.4/1.7	22.1-20/10	Baldor
85701004	1.0	1	1.15	115/230	56C	67	not defined	B	K	13/6.5	14.2/7.1	74/37	Baldor
84Z04924	1.0	3	1.15	208-230/460	56CZ	82.5	EE	B	M	3.4-3.2/1.6	3.6-3.4/1.7	29.2-26.4/13.2	Baldor
86680005	1.5	1	1.15	115/208-230	56C	72	not defined	B	J	16/8.2-8.0	18.5/10.2-9.25	252-228/114	Baldor
84Z04925	1.5	3	1.15	208-230/460	56CZ	84	EE	B	M	5.1-4.8/2.4	5.4-5.1/2.55	42-38/19	Baldor
86680006	2.0	1	1.15	115/230	56C	78	not defined	F	J	17.2/8.6	19.2/9.6	64.7-58.5/29.25	Baldor
84Z04926	2.0	3	1.15	208-230/460	56CZ	84	EE	B	L	6.4-6.2/3.1	7-6.8/3.4	52.6-47.6/23.8	Baldor
86680008	3.0	1	1.0	115/230	184TCZ	78	not defined	F	K	28/14	N/A	210/105	Baldor
84Z04927	3.0	3	1.15	208-230/460	182TCZ	87.5	EE	F	L	9.1-8.4/4.2	9.7-9.2/4.6	80.9-73.2/36.6	Baldor
86680012	5.0	1	1.0	230	215TC	82.5	not defined	B	K	22	N/A	195	Baldor
84Z04928	5.0	3	1.15	208-230/460	184TCZ	87.5	EE	F	K	15.4-14.2/7.1	16-15.2/7.6	118.5-107.2/53.6	Baldor
84Z04930	10	3	1.15	208-230/460	215TCZ	89.5	EE	F	K	28-27/13.5	31.4-30/15	236.6-214/107	Baldor

LP 2-pole motor data

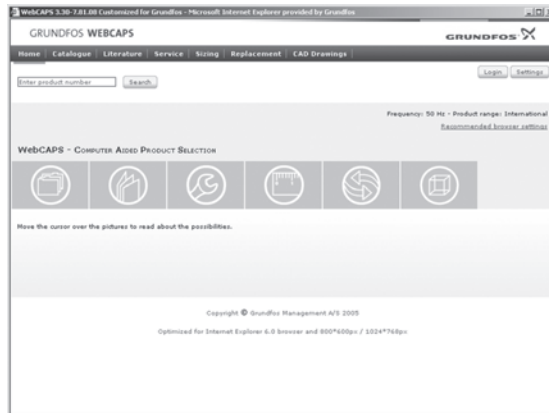
LM 2-pole motor data													
Product number	Power [Hp]	Ph	Service factor	Supply voltage [V]	Frame size	Eff [%]	Efficiency rating*	Temp. class	KVA code	FLA	SFA	LRA	Motor mfg.
85700012	5.0	1	1.15	208-230	213CZ	80	not defined	F	J	24-22	27-25	189-170	Baldor
84Z05130	5.0	3	1.15	208-230/460	182TCZ	87.5	EE	F	K	12.6-11.6/5.8	14.2-13.2/6.6	119.4-108/54	Baldor
85700017	7.5	1	1.15	208-230	213TC	82	not defined	F	F	33.8-31	38.5-35.5	244-220	Baldor
84Z04858	7.5	3	1.15	208-230/460	213TCZ	88.5	EE	F	J	19.5-17.8/8.9	22-20.2/10.1	163.2-147.6/73.8	Baldor
85700022	10	1	1.15	230	213TC	85.5	not defined	F	F	40	46	284	Baldor
84Z05199	10	3	1.15	208-230/460	215TCZ	89.5	EE	F	H	25-23/11.5	29.2-26.4/13.2	199-180/90	Baldor
84Z05043	15	3	1.15	208-230/460	254TCZ	90.2	EE	F	K	37.5-34/17	42.5-39/19.5	336.2-304/152	Baldor
84Z04921	20	3	1.15	208-230/460	284TSCZ	90.2	EE	F	J	49-46/23	58-52/26	418-378/189	Baldor

* EE = NEMA Energy Efficient, PE = NEMA Premium Efficient (PE is available on request)

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8. Further product documentation

WebCAPS

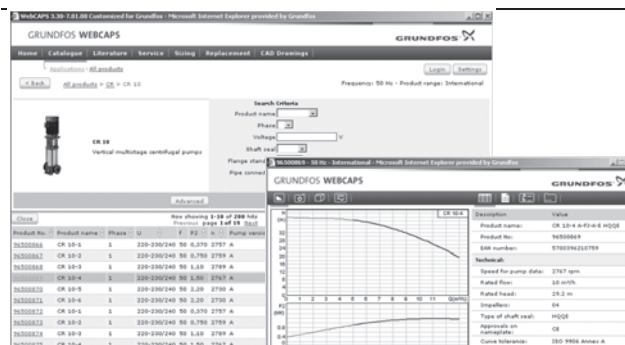


WebCAPS is a **Web-based Computer Aided Product Selection** program available on www.grundfos.com.

WebCAPS contains detailed information on more than 185,000 Grundfos products in more than 20 languages.

In WebCAPS, all information is divided into 6 sections:

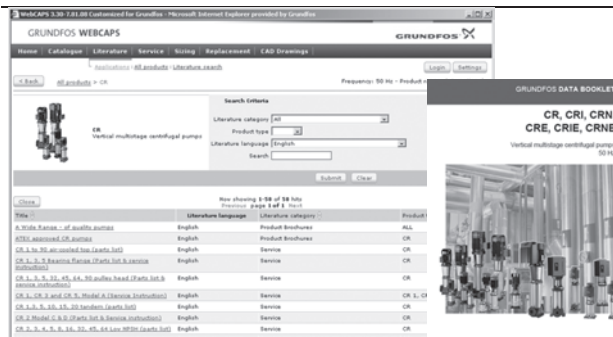
- Catalog
- Literature
- Service
- Sizing
- Replacement
- CAD drawings.



Catalog

This section is based on fields of application and pump types, and contains

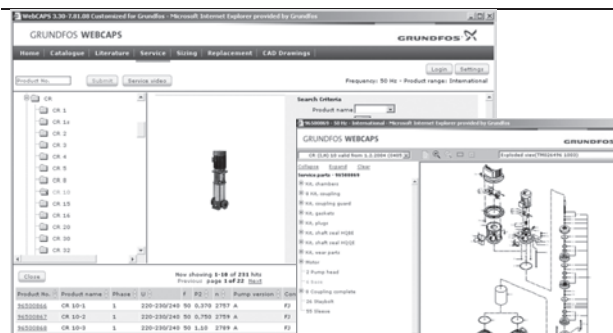
- technical data
- curves (QH, Eta, P1, P2, etc) which can be adapted to the density and viscosity of the pumped liquid and show the number of pumps in operation
- product photos
- dimensional drawings
- wiring diagrams
- quotation texts, etc.



Literature

In this section you can access all the latest documents of a given pump, such as

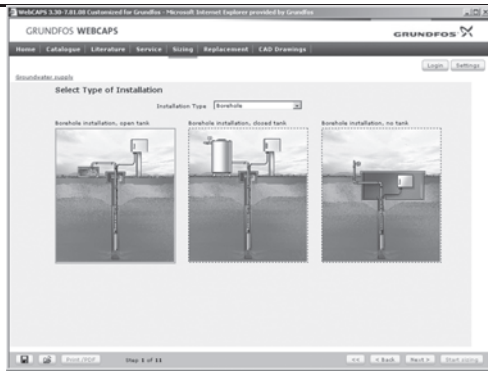
- product guides
- installation and operating instructions
- service documentation, such as Service kit catalog and Service kit instructions
- quick guides
- product brochures, etc.



Service

This section contains an easy-to-use interactive service catalog. Here you can find and identify service parts of both existing and discontinued Grundfos pumps.

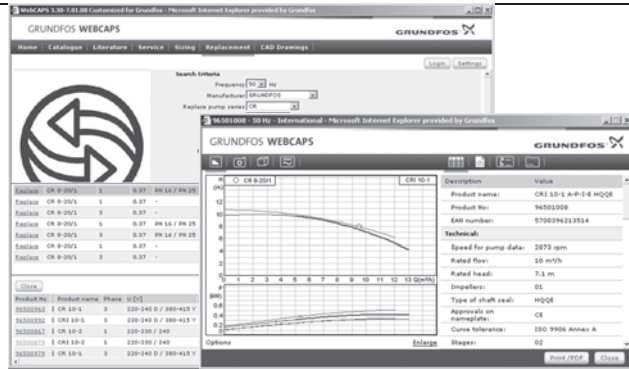
Furthermore, this section contains service videos showing you how to replace service parts.



Sizing

This section is based on different fields of application and installation examples, and gives easy step-by-step instructions in how to

- select the most suitable and efficient pump for your installation
- carry out advanced calculations based on energy consumption, payback periods, load profiles, life cycle costs, etc.
- analyse your selected pump via the built-in life cycle cost tool
- determine the flow velocity in wastewater applications, etc.



Replacement

In this section you find a guide to selecting and comparing replacement data of an installed pump in order to replace the pump with a more efficient Grundfos pump. The section contains replacement data of a wide range of pumps produced by other manufacturers than Grundfos.

Based on an easy step-by-step guide, you can compare Grundfos pumps with the one you have installed on your site. When you have specified the installed pump, the guide will suggest a number of Grundfos pumps which can improve both comfort and efficiency.



CAD drawings

In this section it is possible to download 2-dimensional (2D) and 3-dimensional (3D) CAD drawings of most Grundfos pumps.

These formats are available in WebCAPS:

2-dimensional drawings:

- .dxf, wireframe drawings
- .dwg, wireframe drawings.

3-dimensional drawings:

- .dwg, wireframe drawings (without surfaces)
- .stp, solid drawings (with surfaces)
- .eprt, E-drawings.

WinCAPS



WinCAPS CD-ROM

WinCAPS is a **Windows-based Computer Aided Product Selection** program containing detailed information on more than 185,000 Grundfos products in more than 20 languages.

The program contains the same features and functions as WebCAPS, but is an ideal solution if no Internet connection is available.

WinCAPS is available on CD-ROM and updated once a year.

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9. Submittal data sheet

LM, LP single-stage close coupled in-line circulating pumps

Company name
Prepared by
Phone number (.....).....
Fax number (.....).....
Date:..... Page 1 of:.....
Quote number:.....

Client information	
Project title:.....	Client name:.....
Reference number:.....	Client number:.....
Client contact:.....	Client phone:.....

Location information	
For:.....	Unit:.....
Site:.....	Service:.....
Address:.....	City:..... State:..... Zip code:.....

Pump information	
Model information from type key and codes:	Min. required flow:..... Example: 2.5 LM 6/6.2 U-G-A-BBUE.....
Quantity required:.....	NPSH required at duty point:.....

Technical data	Motor information
Flow (gpm):.....	Hp:.....
Head (Ft).....	Phase:.....
Motor:.....	Voltage:.....
Max. liquid temp.:.....	Enclosure:.....
Min. liquid temp.:.....	
Min. required inlet pressure:.....	
Connection type and size:.....	

Product guide additional information pages	
Materials page number:.....	Performance curve page number:.....
Technical data page number:.....	Motor data page number:.....

Variant pump information (optional):
.....

Additional information:
.....

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L-MLP-PG-01 Rev. 07.11

Repl. 09.02

US

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