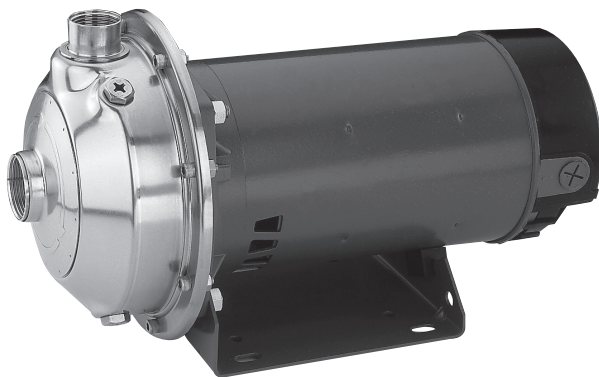




MCS

End suction centrifugal pumps

A full range of product features

Superior materials of construction: AISI 304 and 316L stainless steel liquid handling components for corrosion resistance, quality appearance, and improved strength and ductility.

High efficiency impeller: Enclosed impeller with unique floating seal ring design maintains maximum efficiencies over the life of the pump without adjustment.

Casing: Stainless steel construction with NPT threaded, centerline connections, easily accessible vent, prime and drain connections with stainless steel plugs.

Mechanical seal: Standard John Crane seal with carbon ceramic faces, BUNA elastomers, and stainless metal parts. Optional high temperature and seal available.

Motors: NEMA standard open drip-proof*, totally enclosed fan cooled enclosures*. Rugged ball bearing design for continuous duty under all operating conditions.



NSF 61 Certification: Pumps assembled at the factory are certified to the NSF/ANSI 61 Drinking Water System Components Standard. (BUNA Seal versions are not NSF Certified.)

* Premium efficiency where required by Department of Energy regulations.

The various versions of the MCS are identified by a product code number on the pump label. This number is also the catalog number for the pump. The meaning of each digit in the product code number is shown at right.

MCS product line numbering system

Example product code

100MS1 C 1 E 0

Mechanical seal and o-ring
0 = Pre-engineered standard
For optional mechanical seal
modify catalog order no. With
seal code listed below.

John Crane Mechanical Seal (5/8" seal)

Seal code	Rotary	Stationary	Elastomers	Metal parts	Part no.	Casing o-ring
0		Ceramic	BUNA	18-8SS	10K10	BUNA
4	Carbon	Silicon carbide	Viton	316 SS	10K55*	Viton

*Replaces obsoleted 10K24. Reemplace la obsoleta 10K24

Impeller option code . . . No adder required
For optional impeller diameters modify catalog order no. With impeller code listed below. Select optional impeller diameter from pump performance curve.

Impeller code	Pump Size		
	1 x 1 1/4 - 6	1 1/4 x 1 1/2 - 6	1 1/2 x 2 - 6
	Diameter	Diameter	Diameter
A	6 1/8		5 1/8
B	5 3/4	5 15/16	5
C	5 3/16	5 3/4	4 3/4
D	4 3/4	5 11/32	4 1/2
E	4 7/16	5 1/16	4 3/8
G		4 5/8	3 5/8
H		4 1/4	
J		4	

Driver

1 = 1 PH, ODP 3 = 3 PH, ODP 575V 5 = 3 PH, TEFC
2 = 3 PH, ODP 4 = 1PH, TEFC 6 = 3 PH, TEFC 575V

Note: motor is premium efficient where required by DOE.

HP rating

C = 1/2 HP E = 1 HP G = 2 HP J = 5 HP
D = 3/4 HP F = 1 1/2 HP H = 3 HP

Driver: hertz/pole/RPM

1 = 60 Hz, 2 pole, 3500 RPM 4 = 50 Hz, 2 pole, 2900 RPM

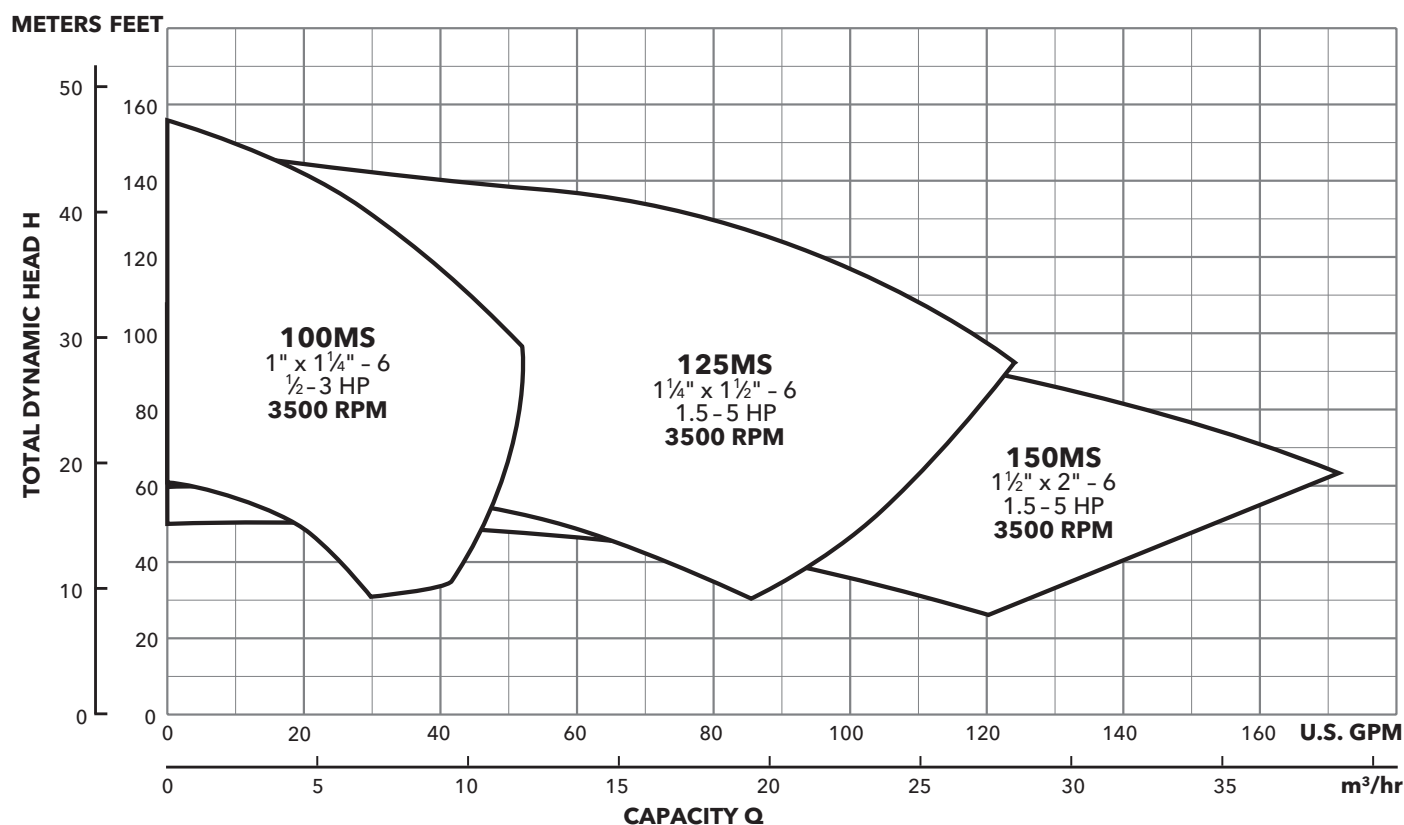
Material

MS = Stainless steel

Pump size

100 = 1 x 1 1/4 - 6 125 = 1 1/4 x 1 1/2 - 6 150 = 1 1/2 x 2 - 6

Performance coverage (60 HZ)



Notes:

Not recommended for operation beyond printed H-Q curve.

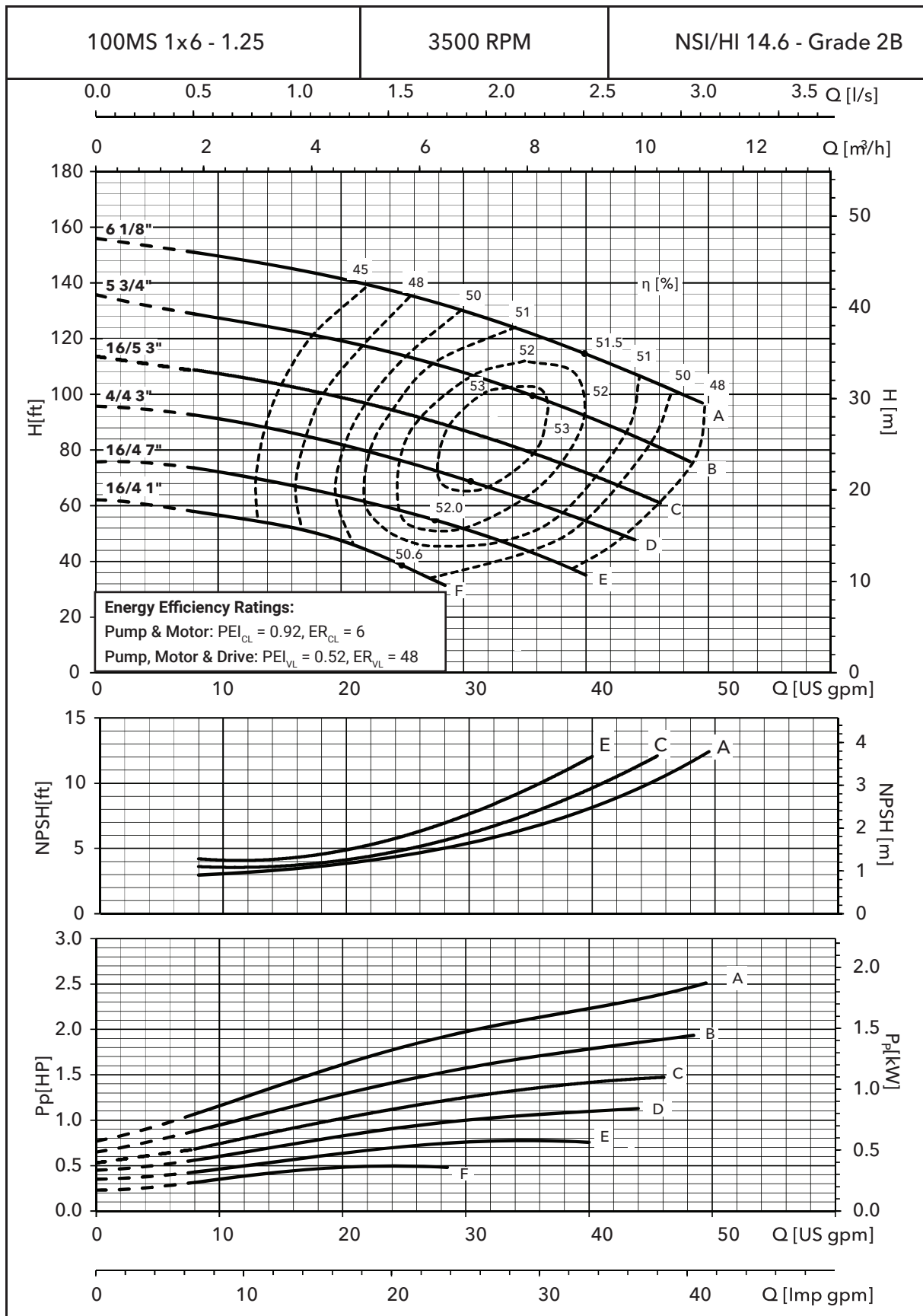
For critical application conditions consult factory.

Not all combinations of motor, impeller and seal options are available for every pump model. Please check with G&L Series on non-cataloged numbers.

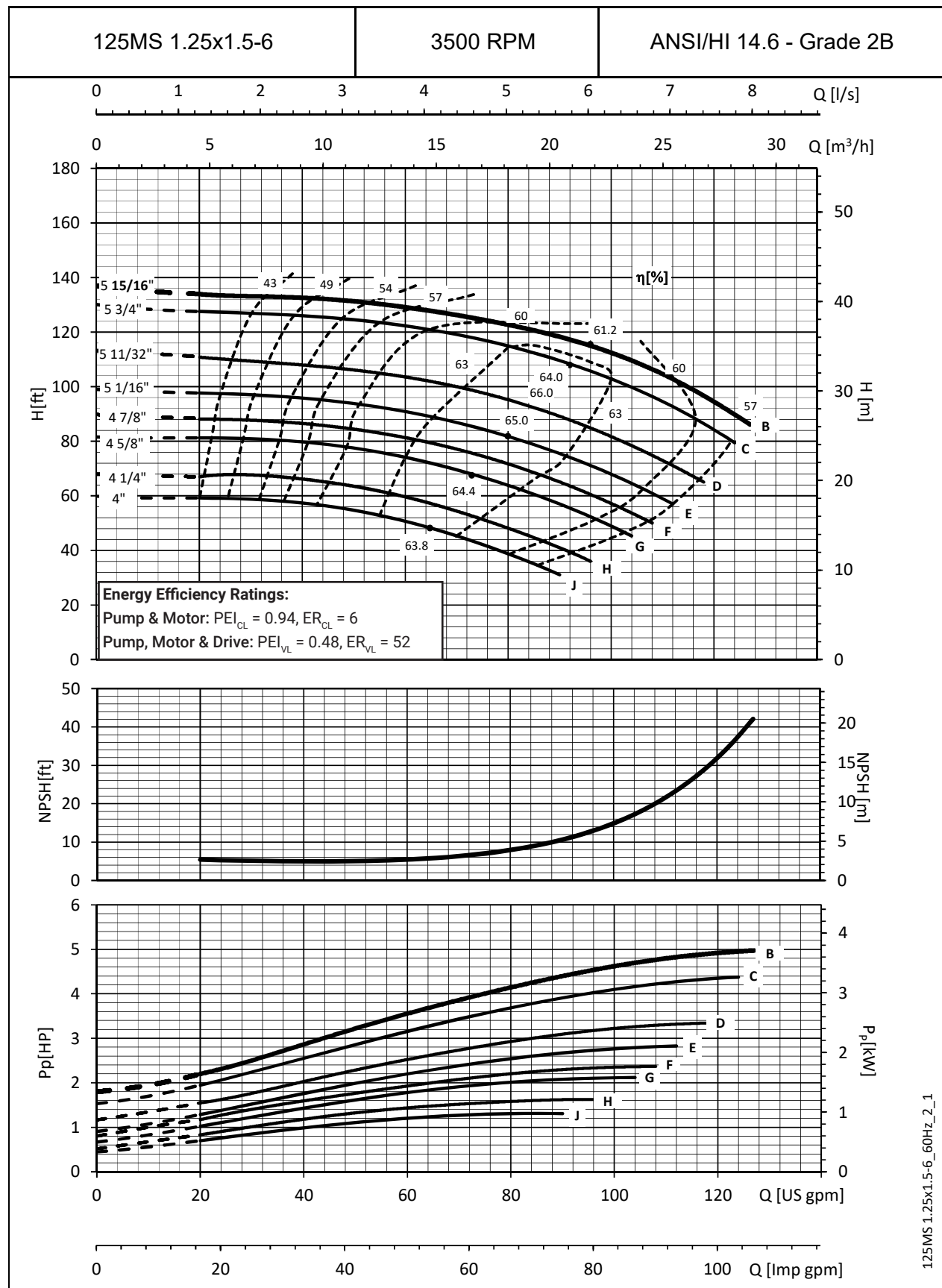
All standard 3500 RPM ODP* and TEFC* motors supplied by Goulds Water Technology, have minimum of 1.15 service factor. Standard catalog units may utilize available service factor. Any motors supplied other than Goulds Water Technology check available service factor.

* Premium efficiency where required by Department of Energy regulations.

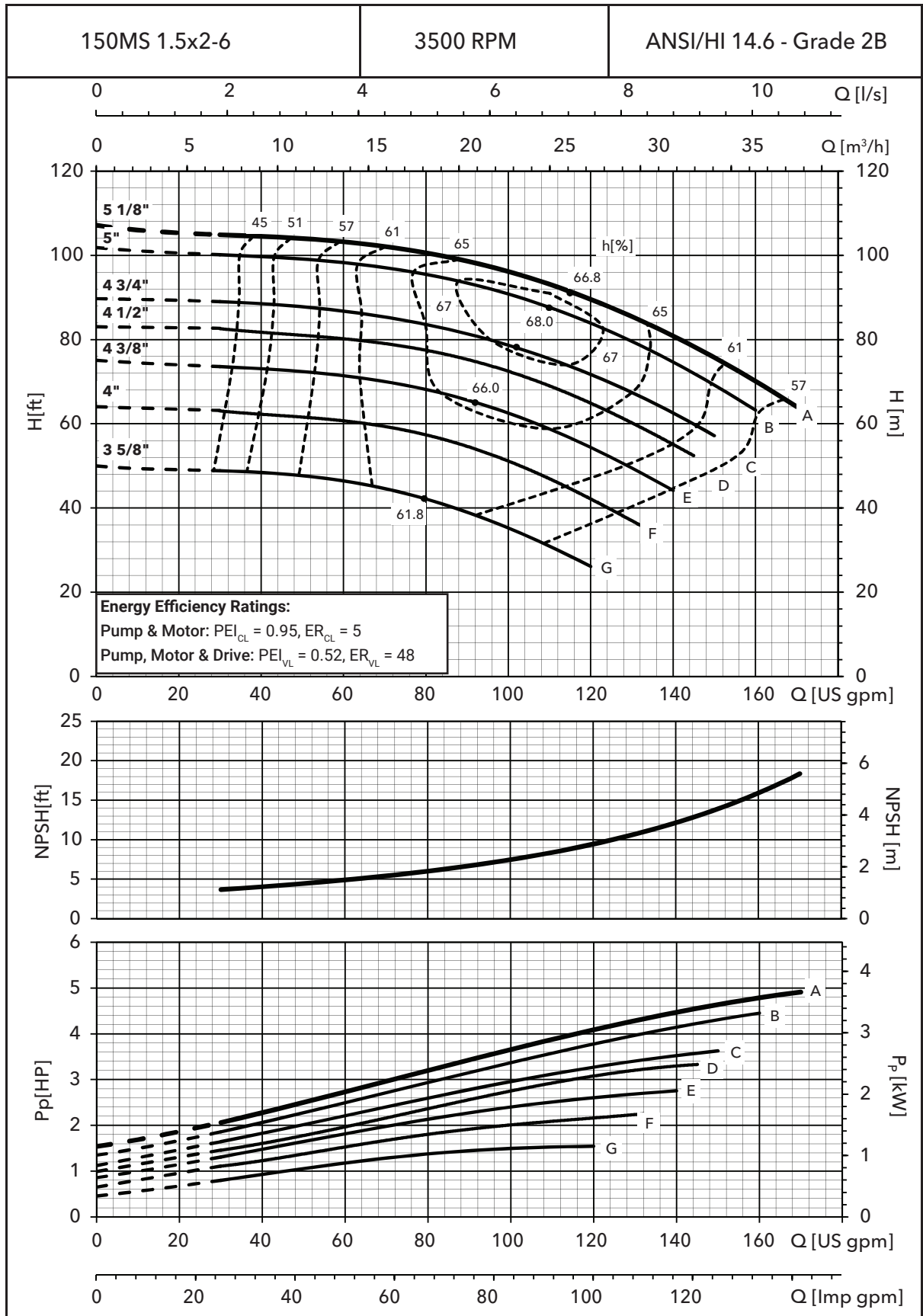
Performance curves – 60 HZ, 3500 RPM



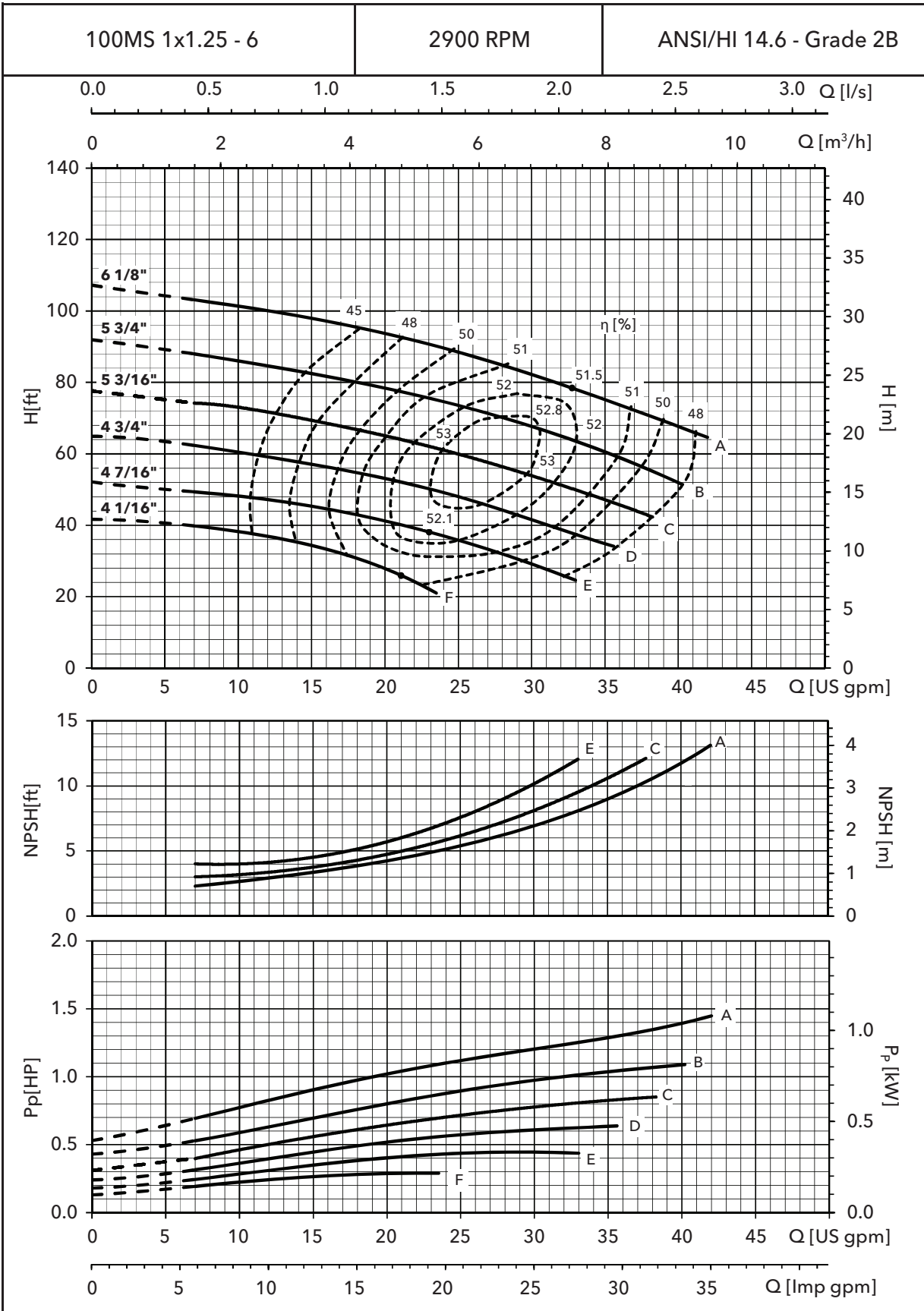
Performance curves – 60 HZ, 3500 RPM



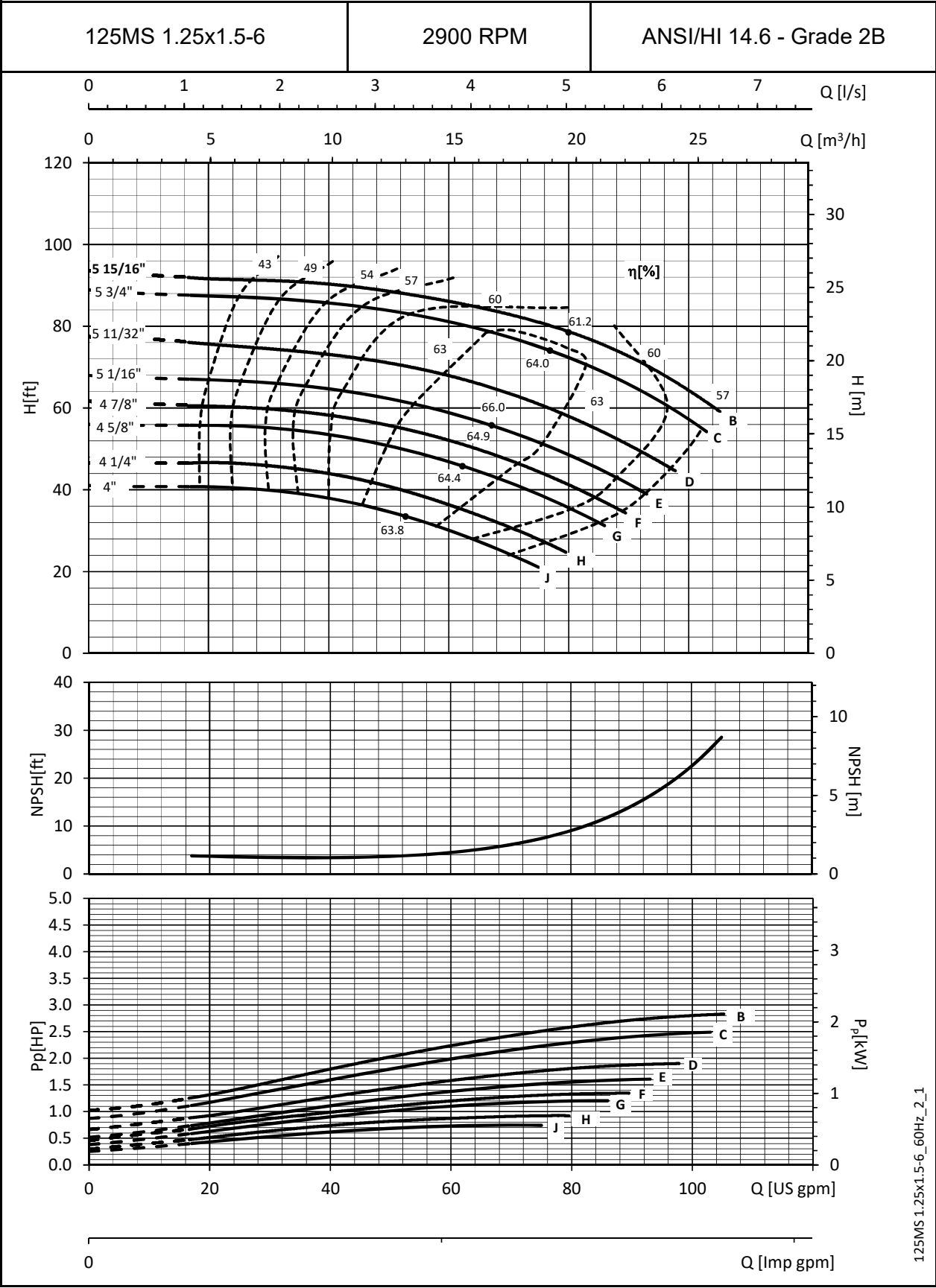
Performance curves – 60 HZ, 3500 RPM



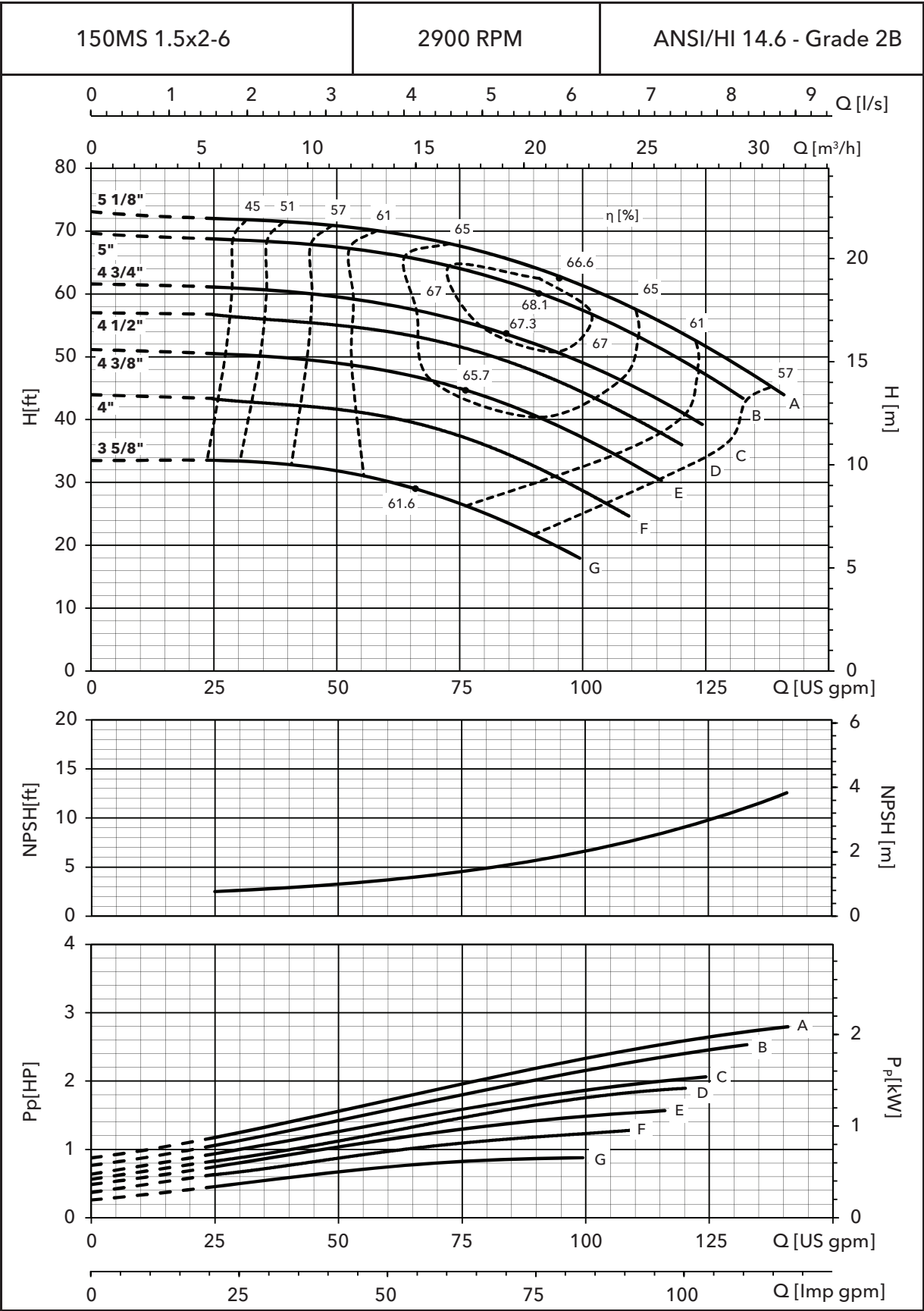
Performance curves – 50 HZ, 2900 RPM



Performance curves – 50 HZ, 2900 RPM



Performance curves – 50 HZ, 2900 RPM



Specifications

Capacities to: 170 GPM (550L/min) at 3500 RPM

Heads to: 150 feet (46 m) at 3500 RPM

Working pressures to: 75 PSIG (5 bars) 125 PSIG (9 bars) optional seals

Maximum temperatures to: 212°F (100°C) with standard seal or 250°F (121°C) with optional high temperature seal

Direction of rotation: Clockwise when viewed from motor end.

Motor specifications: NEMA 56 square flange frame. 3500 RPM ½ through 5 HP. Open drip-proof, ½ -3 HP totally enclosed fan-cooled enclosures. Stainless steel shaft with ball bearings.

Single phase: Voltage 115/230 ODP* and TEFC.
(3 HP model – 230 V only) Built-in overload with auto-reset provided.

Three phase: Voltage 208-230/460 ODP* and TEFC*.

Note: For three phase motors, overload protection must be provided in starter unit. Starter and heaters must be ordered separately.

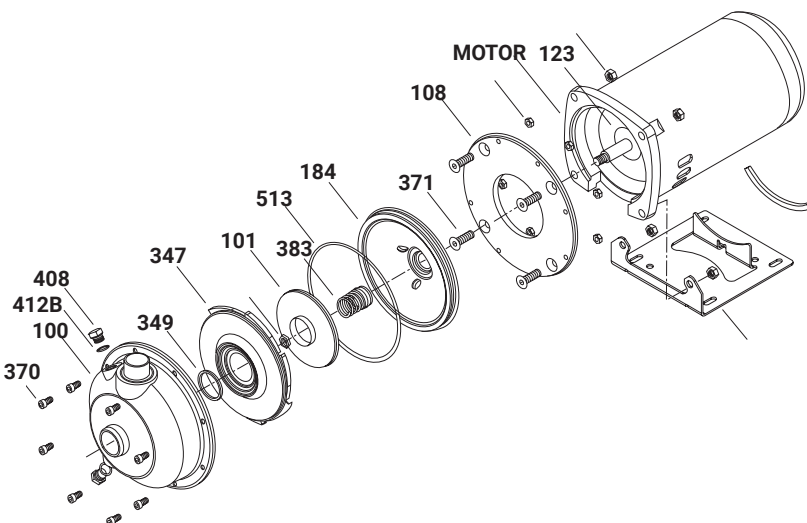
** Premium efficiency where required by Department of Energy regulations.*

Typical applications

Specifically designed for a broad range of general applications traditionally requiring various materials such as all iron, bronze fitted or all bronze construction.

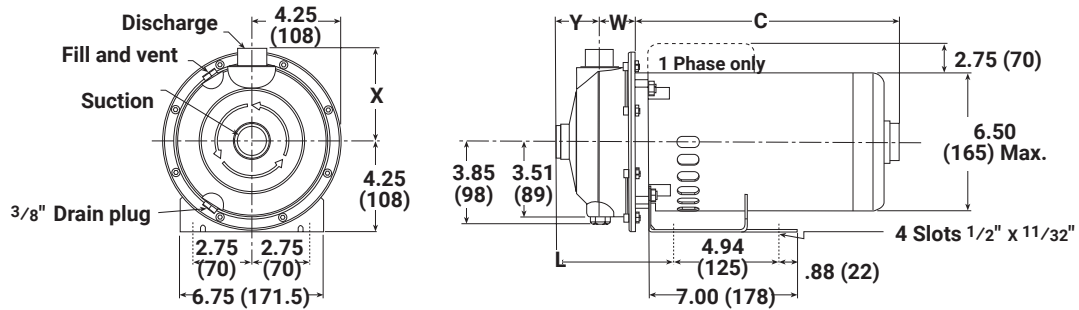
- Water circulation
- Reverse osmosis
- Booster service
- Air scrubbers
- Liquid transfer
- Heat exchangers
- Spray system
- Filtration systems
- Chillers
- Jockey pumps
- Washing/cleaning systems
- OEM applications
- Injection molding cooling
- General water services

MCS close coupled pump major components: materials of construction



Item no.	Description	Materials
100	Casing	AISI 316L SS
101	Impeller	AISI 316L SS
108	Motor adapter	Aluminium
123	Deflector	BUNA-N
184	Seal housing	AISI 316L SS
347	Guidevane	AISI 316L SS
349	Seal ring, guidevane	BUNA-N
370	Socket head screws, casing	AISI 316L SS
371	Bolts, motor	Steel
383	Mechanical seal	See chart
408	Drain and vent plug, casing	AISI 316L SS
412B	O-ring, drain and vent plug	Viton
513	O-ring, casing	Viton
Motor	NEMA standard, 56Y flange	

MCS close coupled – dimensions, weights and specifications



Clockwise rotation viewed from drive end.

Dimensions and weights – Determined by pump

Pump	Suct.	Disch.	HP	W	X	Y	L	Wt. less motor
100 MS	1.25 (32)	1.00 (25)	1/2-3	1.64 (42)	4.37 (111)	2.00 (51)	5.18 (131)	6 (2.7)
125 MS	1.50 (38)	1.25 (32)	1.50-7.50	2.08 (53)	4.45 (113)	2.13 (54)	5.74 (146)	7 (3.2)
150 MS	2.00 (51)	1.50 (38)	1.50-5	2.08 (53)	4.45 (113)	2.13 (54)	5.74 (146)	7 (3.2)

Dimensions and weights – Determined by motor

HP	Motor length and weights							
	1 phase				3 phase			
	ODP*		TEFC*		ODP*		TEFC*	
	C	Weight	C	Weight	C	Weight	C	Weight
1/2	9.88 (251)	21 (9.5)	11.34 (288)	34 (15.4)	9.79 (249)	19 (8.6)	8.60 (218)	20 (9.1)
3/4	10.63 (270)	26 (11.8)	11.59 (294)	33 (14.9)	9.79 (249)	25 (11.3)	10.34 (263)	21 (9.5)
1	10.88 (276)	28 (12.7)	12.09 (307)	37 (16.8)	9.79 (249)	26 (11.8)	10.84 (275)	30 (13.6)
1 1/2	11.13 (283)	28 (12.7)	12.59 (320)	42 (19)	10.54 (268)	28 (12.7)	11.09 (282)	33.75 (15.3)
2	11.73 (298)	40 (18.1)	12.84 (326)	42 (19)	11.04 (280)	34 (15.4)	11.81 (300)	36 (16.3)
3	12.48 (317)	43 (19.5)	13.34 (339)	48 (21.7)	12.29 (312)	34 (15.4)	12.56 (319)	41 (18.6)
5	13.14 (334)	49 (22.2)	—	—	13.79 (350)	46 (20.8)	—	—

* Premium efficiency where required by Department of Energy regulations.

Notes:

1. Pumps will be shipped with top vertical discharge as standard. For other orientations, remove casing screws, rotate to desired position, and tighten 6mm screws to 5 – 6 lbs./ft. (6.8-8 N.m).
2. Dimensions in inches and millimeters (mm). Weight in pounds and kilograms (kg).
3. Motor dimensions may vary with motor manufacturer.
4. Not to be used for construction purposes unless certified.



Learn more about
MCS pumps:

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2881 East Bayard Street Ext., Fax: (888) 322-5877
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Seneca Falls, NY 13148

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