

60 Hz



e-LNE Series

SINGLE IN-LINE ELECTRIC PUMPS
EQUIPPED WITH **IE3** MOTORS

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 **LOWARA**
a xylem brand

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Xylect™

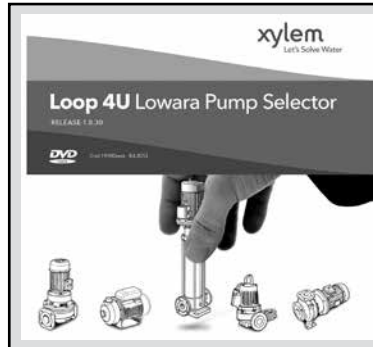
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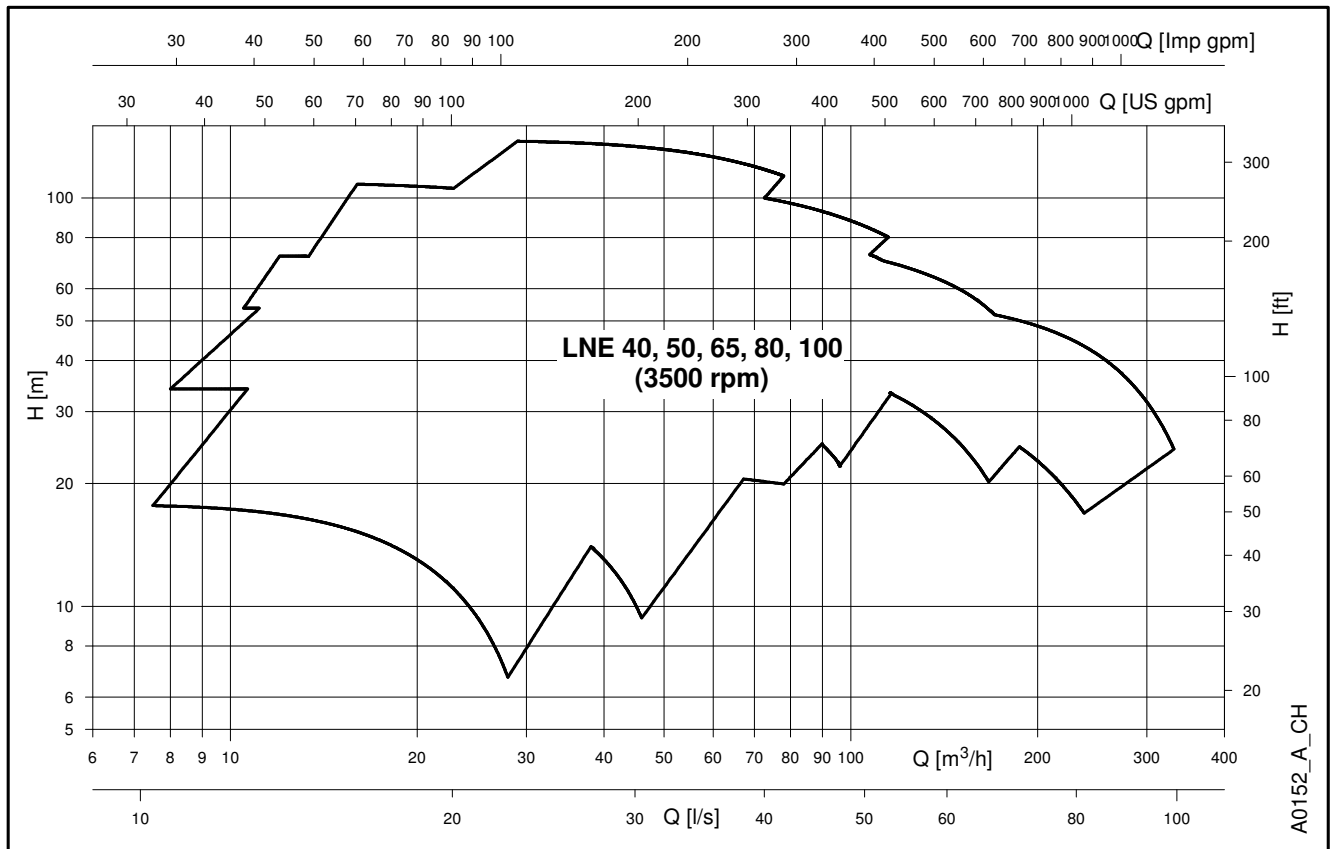
For more information, please, see page 105-106.

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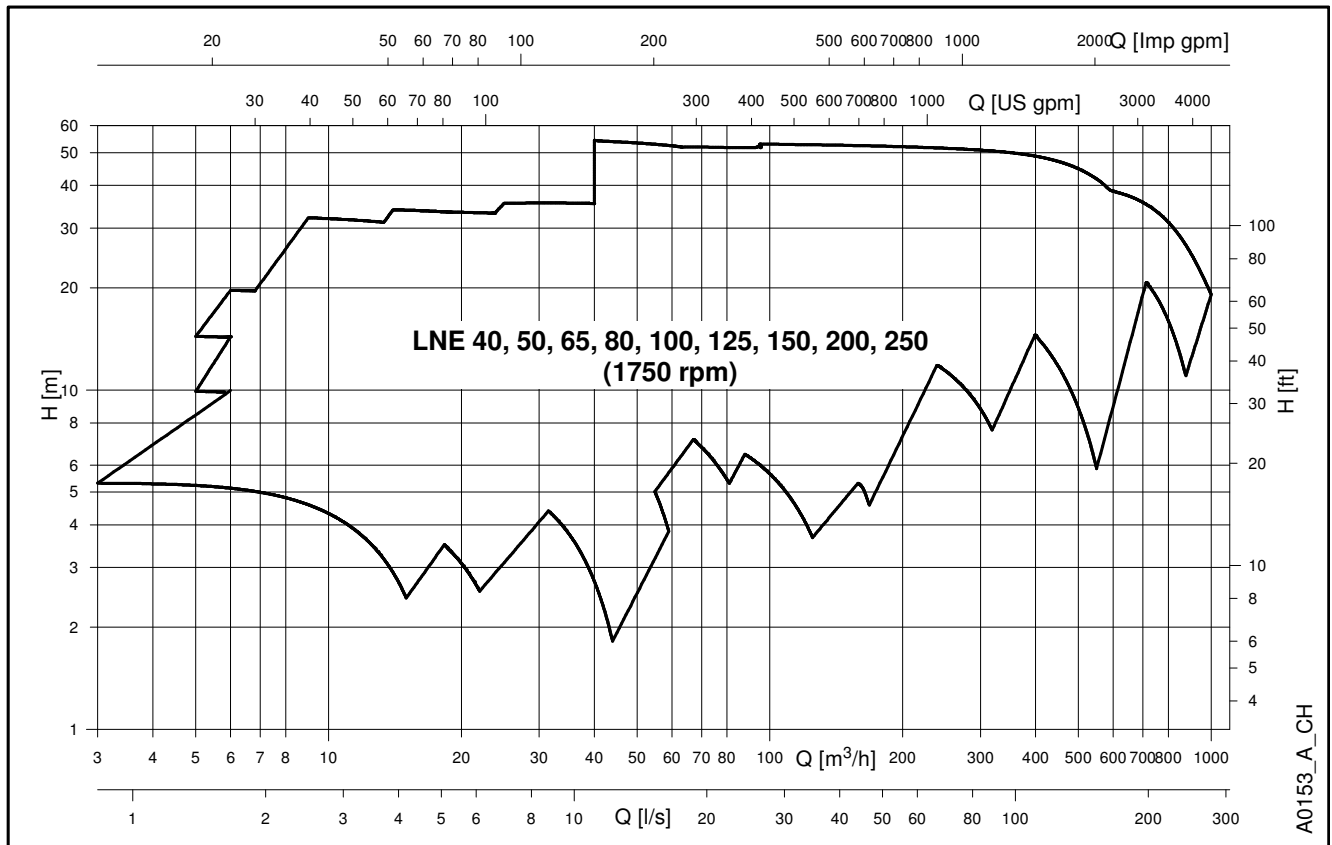
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e-LNE SERIES

HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 2 POLES



HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 4 POLES



e-LNE SERIES GENERAL INTRODUCTION

The new **Lowara e-LNE Series** is the result of the close collaboration between our customers and us; the new range has been redesigned and improved to meet the Commercial Building Services (CBS) requirements, in terms of performances and energy saving.

In addition the new **Lowara e-LNE Series** can be customized to meet the needs of the Industry, keeping the best-in-class quality in production that affords our pumps continuous reliability and robustness in operation.

Pump design

The new **Lowara e-LNE Series** is a single-impeller centrifugal pump with in-line suction and delivery flanges. The e-LNE Series has a "Back pull-out" design (impeller, adapter, and motor can be extracted without disconnecting the pump body from the piping system).

The pumps have cast iron casing as standard; the impeller standard material is cast iron but is also available in bronze and stainless steel.

The pumps are equipped with interchangeable mechanical seals and IE3 efficiency motors; and are available in the following constructions:

Extended shaft

Close-coupled by means of an adaptor bracket with an impeller keyed directly to the special motor shaft extension.



Stub shaft

Rigid-coupled with a bracket, an adaptor and a rigid coupling keyed to the standard motor shaft extension.



Hydraulic specifications

- Maximum delivery: **332 m³/h** (2 poles range).
1000 m³/h (4 poles range).
 - Maximum head: **138 m** (2 poles range).
55 m (4 poles range).
 - Hydraulic performance compliant with ISO 9906:2012 – Grade 3B.
Grade 2B and 1B available upon request.
 - Fluid temperature range:
 - standard version (with mechanical seal BQ1EGG-WA and EPDM gasket) **-25 to +120 °C**
 - versions on request (depending on mechanical seal and gasket) **-20* or -25 to +120 or +140 °C**.
 - Maximum operating pressure:
 - standard version (with mechanical seal BQ1EGG-WA) **16 bar @ 90 °C** and **10 bar @ 120 °C**
 - versions on request (with other mechanical seals) **16 bar @ 120 °C** and **14,9 bar @ 140 °C**
- * Fluoro-elastomer: FPM (old ISO), FKM (ASTM & new ISO).

Motor specifications

- Squirrel cage in short circuit enclosed construction with external ventilation (TEFC).
- 2-pole and 4-pole ranges.
- **IP55** protection degree as motor (EN 60034-5), IPX5 as electro-pump (EN 60529).
- Performances according to EN 60034-1.
- **IE3** efficiency level (three-phase from 0,75 kW).
- **155 (F)** insulation class.
- Standard voltage:
 - 1 x 220-230 V 60 Hz.
 - 3 x 220-230/380-400 V 60 Hz.
 - 3 x 220/380 and 3 x 380/660 V 60 Hz.
- Maximum ambient temperature: 40 °C.

Note

- Anti-clockwise rotation when facing pump's suction port.
- Pump does not include counter-flanges.

List of the Directives

- Machinery Directive MD 2006/42/EC
- Electromagnetic Compatibility Directive EMCD 2004/108/EC

and the main technical norms

- EN 809, EN 60204-1 (safety)
- EN 1092-2 (cast iron flanges)
- EN 61000-6-1, EN 61000-6-3
- IEC 60034-30, IEC 60034-30-1 (electric motors)

e-LNE SERIES

COMMERCIAL BUILDING SERVICES (CBS)

APPLICATIONS & BENEFITS

Applications

The **Lowara e-LNE** Series is suitable for many different applications demanding variable duty points, reliable, and efficient products in cost saving operation.

The Lowara e-LNE Series can be used for the following CBS applications:

- **HVAC**

- Liquid transfer in heating systems.
- Liquid transfer in air-conditioning systems.
- Liquid transfer in ventilation systems.

- **Water Supply**

- Pressure boosting in commercial buildings.
- Irrigation systems.
- Water transfer for green houses.



Benefits

The Lowara e-LNE Series permit to achieve the following benefits.

- **Performances:** the e-LNE pumps are equipped with IE3 motors, and with hydraulic target points and coverage that satisfy the needs of CBS applications. The standard full cast iron version with PN16, 120 °C maximum fluid temperature, and EPDM elastomer is exactly what the CBS Market needs.
- **Reliability:** robust construction and high-quality standards in production, interchangeable mechanical seals and wear rings, guarantee a continuous operation without faults and a shorter down time for maintenance.
- **Versatility:** beside the standard offer, the Lowara e-LNE series is available in different construction as well as with different material configurations for impellers and elastomers. That helps in addressing a wide range of applications.
- **Total cost ownership:** the best-in-class hydraulic and electric efficiency, the HYDROVAR-equipped versions (available on request), the easy and quick maintenance, allow to reduce the operation and maintenance cost and to save energy when the pump is working or is at rest.
- **Pre-post sales support:** we are continuously working close to our customers to help them in selecting the right pump for the specific application. A user-friendly selection software is available on the website, on DVD, or on Apps for mobile phones. Experienced engineers are fully dedicated to big projects.



**e-LNE SERIES
IDENTIFICATION CODE**



EXAMPLES

LNES 125-250/185/W46UCC4

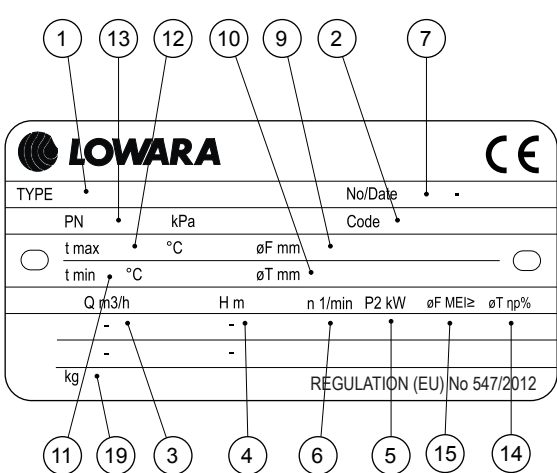
In-line single, electric pump stub shaft coupling, DN125 nominal discharge port, 250 mm nominal impeller diameter, 18,5 kW rated motor power, WEG IE3 model, 4 pole, 60 Hz 380-400/660-690 V, cast iron casing, cast iron impeller, Silicon Carbide/Carbon/EPDM mechanical seal.

LNES 150-250/300/W46UCB4

LINE 150 250/300/W400CB4
In-line single, electric pump stub shaft coupling, DN150 nominal discharge port, 250 mm nominal impeller diameter, 30 kW rated motor power, WEG IE3 model, 4 pole, 60 Hz 380-400/660-690 V, cast iron casing, bronze impeller, Silicon Carbide/Carbon/EPDM mechanical seal.

e-LNE SERIES RATING PLATE

ELECTRIC PUMP



LOWARA		CE	
TYPE		No/Date	
PN	kPa	Code	
t max °C	øF mm		
t min °C	øT mm		
Q m ³ /h	H m	n 1/min	P2 kW
		øF MEI ≥	øT ηp %
kg	REGULATION (EU) No 547/2012		

LEGEND

- 1 - Electric pump unit type
- 2 - Electric pump unit code
- 3 - Flow range
- 4 - Head range
- 5 - Nominal or maximum pump power
- 6 - Speed
- 7 - Serial number, or
order number + order position number
- 9 - Full impeller diameter (only filled in for trimmed
impellers)
- 10 - Trimmed impeller diameter (only filled in for
trimmed impellers)
- 11 - Minimum operating liquid temperature
- 12 - Maximum operating liquid temperature
- 13 - Maximum operating pressure
- 14 - Hydraulic efficiency in best efficiency point (50 Hz)
- 15 - Minimum efficiency index MEI, as per Regulation
(EU) No 547/2012 (50 Hz)
- 19 - Weight

e-LNE SERIES

LIST OF MODELS AT 60 Hz, 2 POLES

SIZE LNE..2	kW	VERSION	
		LNEE	LNES
40-125/15(*)	1,5	•	•
40-125/22(*)	2,2	•	•
40-125/30	3	•	•
40-125/40	4	•	•
40-125/55	5,5	•	•
40-160/40	4	•	•
40-160/55	5,5	•	•
40-160/75	7,5	•	•
40-160/92	9,2	•	-
40-160/110A	11	-	•
40-200/75	7,5	•	•
40-200/92	9,2	•	-
40-200/110A	11	-	•
40-200/110	11	•	•
40-250/150	15	•	•
40-250/185	18,5	•	•
40-250/220	22	•	•
50-125/30	3	•	•
50-125/40	4	•	•
50-125/55	5,5	•	•
50-125/75	7,5	•	•
50-160/55	5,5	•	•
50-160/75	7,5	•	•
50-160/92	9,2	•	-
50-160/110A	11	-	•
50-160/110	11	•	•
50-200/92	9,2	•	-
50-200/110A	11	-	•
50-200/110	11	•	•
50-200/150	15	-	•
50-200/185	18,5	-	•
50-250/185	18,5	•	•
50-250/220	22	•	•
50-250/300	30	-	•
50-250/370	37	-	•
65-125/55	5,5	•	•
65-125/75	7,5	•	•
65-125/92	9,2	•	-
65-125/110A	11	-	•
65-125/110	11	•	•
65-160/110	11	•	•
65-160/150	15	-	•
65-160/185	18,5	-	•

• = Available

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SIZE LNE..2	kW	VERSION	
		LNEE	LNES
65-200/185	18,5	•	•
65-200/220	22	•	•
65-200/300	30	-	•
65-250/220	22	•	•
65-250/300	30	-	•
65-250/370	37	-	•
80-160/150	15	•	•
80-160/185	18,5	•	•
80-160/220	22	•	•
80-160/300	30	-	•
80-200/220	22	-	•
80-200/300	30	-	•
80-200/370	37	-	•
100-160/185	18,5	•	•
100-160/220	22	•	•
100-160/300	30	-	•
100-160/370	37	-	•

(*) Models available also in single-phase version.

LEGEND

LNEE : Extended shaft (single version).

LNES : Stub shaft (single version).

e-LNE SERIES

LIST OF MODELS AT 60 Hz, 4 POLES

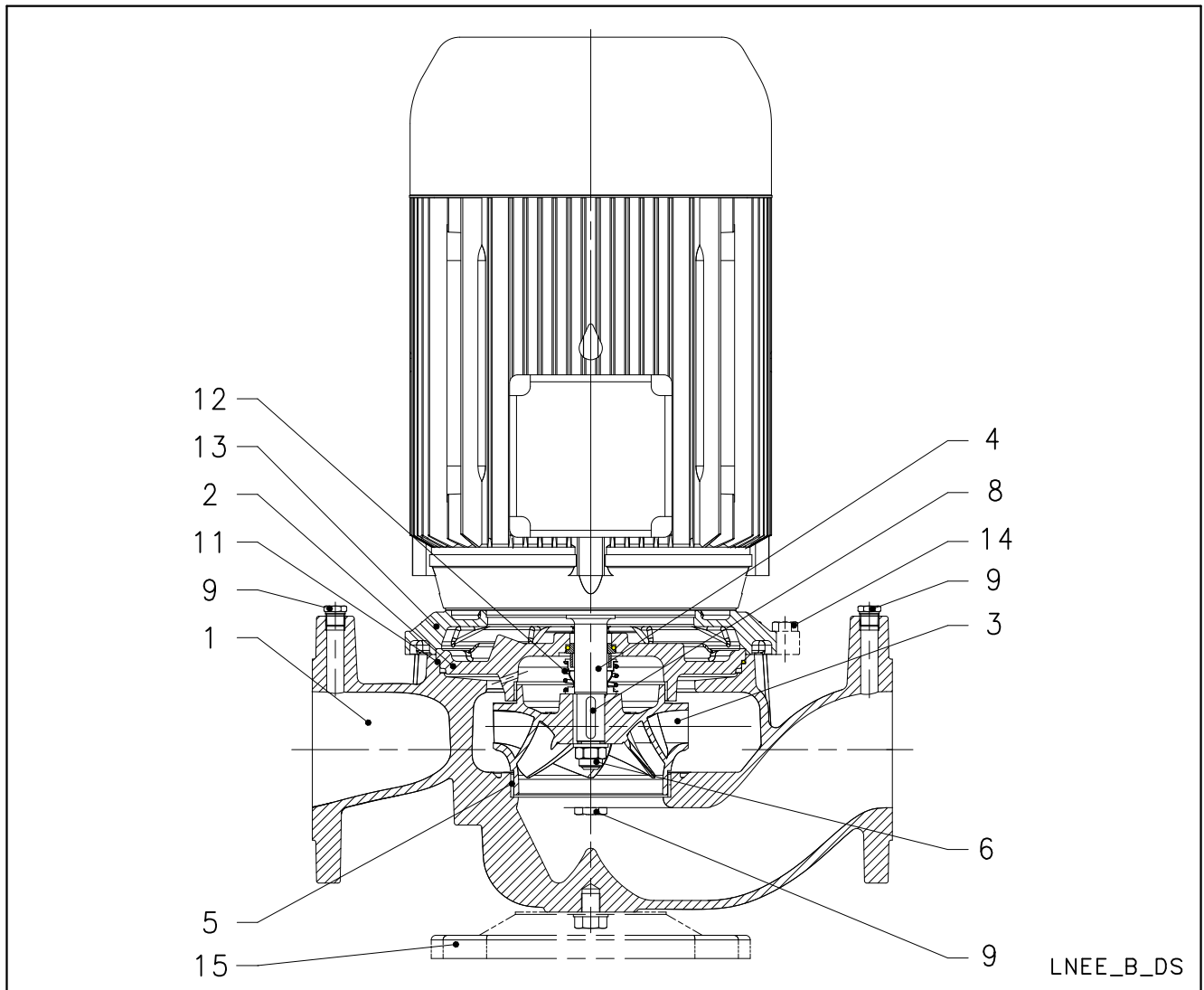
SIZE LNE..4	kW	VERSION	
		LNEE	LNES
40-125/02	0,25	•	-
40-125/03	0,37	•	-
40-125/05	0,55	•	•
40-125/07	0,75	•	•
40-160/05	0,55	•	•
40-160/07	0,75	•	•
40-160/11	1,1	•	•
40-200/11	1,1	•	•
40-200/15	1,5	•	•
40-200/22	2,2	-	•
40-250/22	2,2	•	•
40-250/30A	3	•	•
40-250/30	3	•	•
40-250/40	4	•	•
50-125/03	0,37	•	-
50-125/05	0,55	•	•
50-125/07	0,75	•	•
50-125/11	1,1	•	•
50-160/07	0,75	•	•
50-160/11	1,1	•	•
50-160/15A	1,5	•	•
50-160/15	1,5	•	•
50-200/15	1,5	•	•
50-200/22	2,2	-	•
50-200/30	3	-	•
50-250/30	3	•	•
50-250/40	4	•	•
50-250/55	5,5	•	•
65-125/07	0,75	•	•
65-125/11A	1,1	•	•
65-125/11	1,1	•	•
65-125/15	1,5	•	•
65-160/11	1,1	•	•
65-160/15	1,5	•	•
65-160/22	2,2	-	•
65-160/30	3	-	•
65-200/22	2,2	•	•
65-200/30A	3	•	•
65-200/30	3	•	•
65-200/40	4	•	•
65-250/40	4	•	•
65-250/55	5,5	•	•
65-250/75	7,5	•	•
80-160/22A	2,2	•	•
80-160/22	2,2	•	•
80-160/30	3	•	•
80-160/40	4	•	•

SIZE LNE..4	kW	VERSION	
		LNEE	LNES
80-200/30	3	-	•
80-200/40	4	-	•
80-200/55A	5,5	-	•
80-200/55	5,5	-	•
80-200/75	7,5	-	•
80-250/110A	11	-	•
80-250/110	11	-	•
80-315/150	15	-	•
80-315/185	18,5	-	•
80-315/220	22	-	•
100-160/22	2,2	•	•
100-160/30	3	•	•
100-160/40	4	•	•
100-160/55	5,5	•	•
100-200/55	5,5	-	•
100-200/75	7,5	-	•
100-200/110	11	-	•
100-250/75	7,5	-	•
100-250/110A	11	-	•
100-250/110	11	-	•
100-250/150	15	-	•
100-315/185	18,5	-	•
100-315/220	22	-	•
100-315/300	30	-	•
125-160/40	4	-	•
125-160/55	5,5	-	•
125-160/75	7,5	-	•
125-200/75	7,5	-	•
125-200/110	11	-	•
125-200/150	15	-	•
125-250/150	15	-	•
125-250/185	18,5	-	•
125-315/220	22	-	•
125-315/300	30	-	•
150-200/110	11	-	•
150-200/150	15	-	•
150-200/185	18,5	-	•
150-250/220	22	-	•
150-250/300	30	-	•
150-315/370	37	-	•
150-315/450	45	-	•
150-315/550	55	-	•
200-250/220	22	-	•
200-250/300	30	-	•
200-250/370	37	-	•
200-250/450	45	-	•
200-250/550	55	-	•
200-315/450	45	-	•
200-315/550	55	-	•
200-315/750	75	-	•
200-315/900	90	-	•
250-315/550	55	-	•
250-315/750	75	-	•
250-315/900	90	-	•

• = Available

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LNEE SERIES ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS

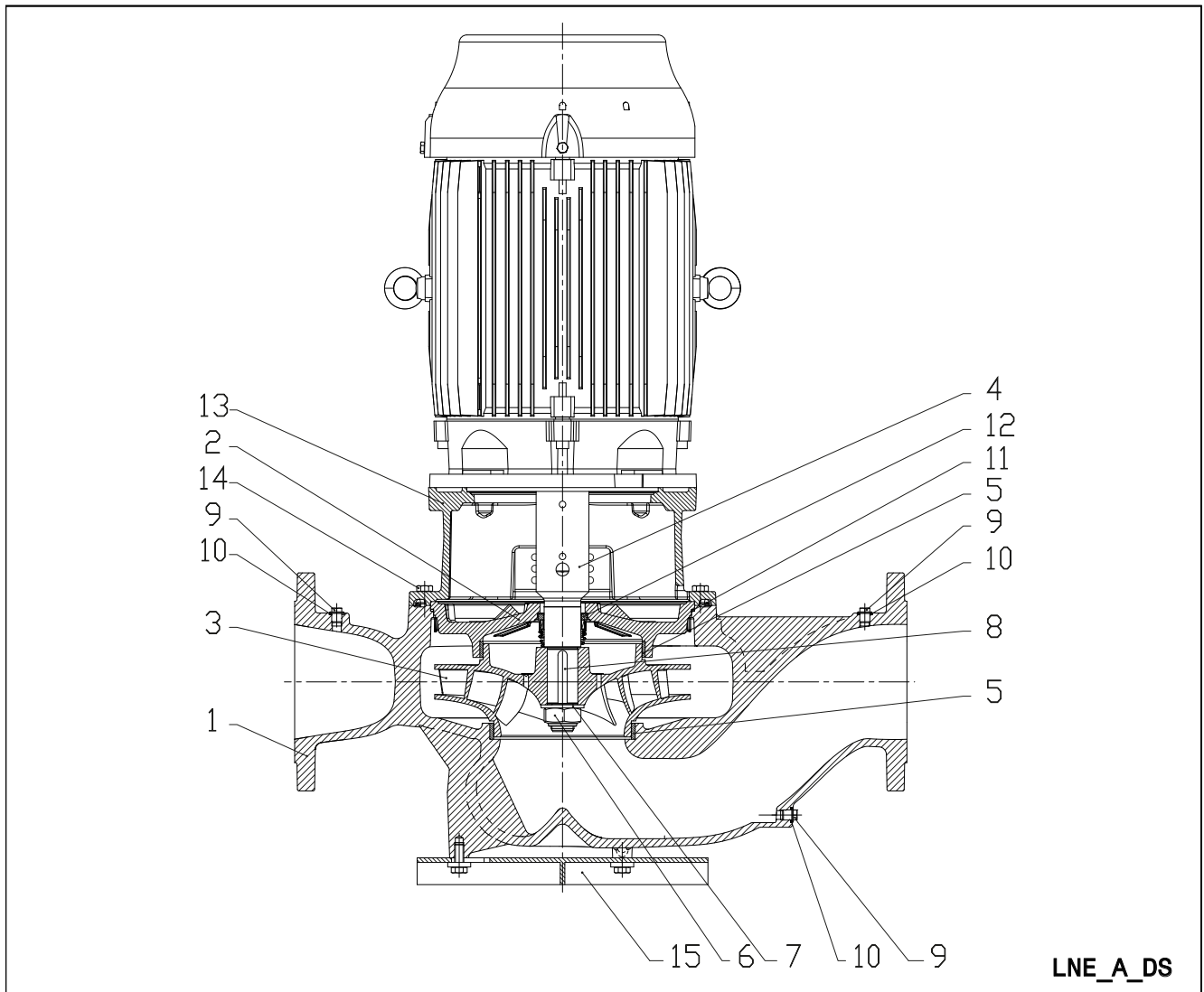


REF. N.	PART	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Volute casing	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
2	Casing cover	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
3	Impeller (40, 50, 65)	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
	Impeller (80, 100)	Cast iron	EN 1561 - GJL-200 (JL1030)	ASTM Class 30
	Impeller (80, 100)	Bronze	EN 1982 - CuSn10-C (CC480K)	UNS C90700
4	Stub shaft	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
5	Wear ring	Stainless steel	EN 10088 - X5CrNi18-10 (1.4301)	AISI 304
6	Impeller lock nut and washer	Stainless steel	EN 10088-1-X5CrNiMo17-12-2 (1.4401)	AISI 316
8	Impeller key	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
9	Fill and drain plugs	Nickel-plated brass	EN 12164-CuZn39Pb3 (CW614N)	-
11	O-Ring	EPDM (standard version)		
12	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
13	Motor adapter *	Aluminium	EN 1706-AC-AlSi11Cu2 (Fe) (AC46100)	-
	Motor adapter	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
14	Volute casing fastening bolts and screws	Carbon steel		
15	Pump base (optional)	Carbon steel	EN 10025-2 - 1.0038	

* 2/4 pole: 40/50/65-125, 40/50-160

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LNES SERIES ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS



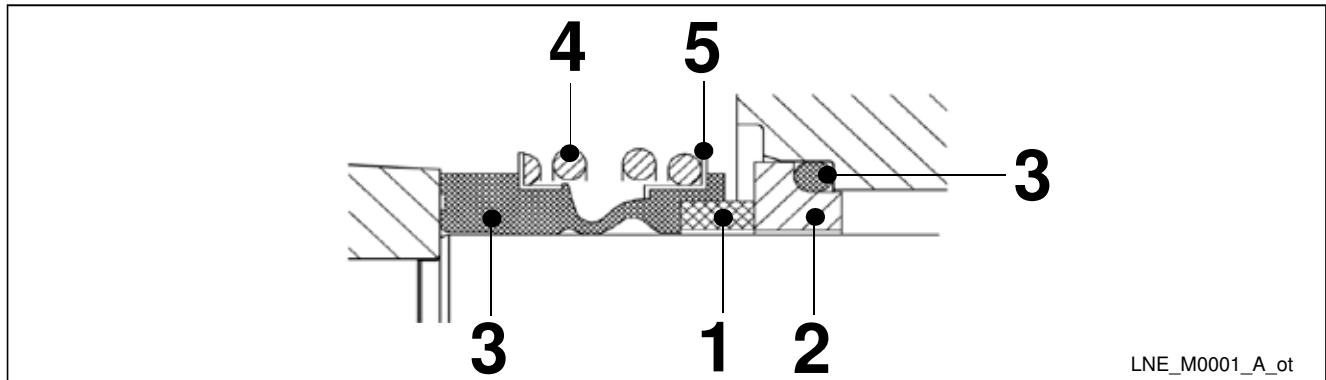
REF. N.	PART	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Volute casing	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
2	Casing cover	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
3	Impeller (40, 50, 65)	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
	Impeller	Cast iron	EN 1561 - GJL-200 (JL1030)	ASTM Class 30
	Impeller	Bronze	EN 1982 - CuSn10-C (CC480K)	UNS C90700
4	Stub shaft	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
	Stub shaft (80-250, 100-200, 100-250, 125, 150)	Stainless steel	EN 10088 - X17CrNi16-2 (1.4057)	AISI 431
5	Wear ring	Stainless steel	EN 10088 - X5CrNi18-10 (1.4301)	AISI 304
6	Impeller nut	Stainless steel	A4 (~ 1.4401)	
7	Impeller washer	Stainless steel	A4 (~ 1.4401)	
8	Impeller key	Stainless steel	EN 10088 - X6CrNiMo17-12-2 (1.4571)	AISI 316Ti
9	Plug	Stainless steel	EN 10088 - X6CrNiMo17-12-2 (1.4571)	AISI 316Ti
10	Gasket	Asbestos-free synthetic fiber AFM 34		
11	O-Ring	EPDM (standard version)		
12	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
13	Motor adapter *	Aluminium	EN 1706-AC-AlSi11Cu2 (Fe) (AC46100)	-
	Motor adapter	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
14	Volute - casing fastening screws	Carbon steel		
15	Pump base (optional)	Carbon steel	EN 10025-2 - 1.0038	

* 2/4 pole: 40/50/65-125, 40/50-160

Lne-en_b_tm

e-LNE SERIES MECHANICAL SEALS

Mechanical seal with mounting dimensions according to EN 12756 and ISO 3069.



LIST OF MATERIALS

POSITION 1 - 2	POSITION 3	POSITION 4 - 5
B : Resin impregnated carbon	E : EPDM	G : AISI 316
A : Antimony impregnated carbon	V : FKM (FPM)	
Q₁ : Silicon carbide		
U₃ : Tungsten carbide		

TYPE OF SEAL

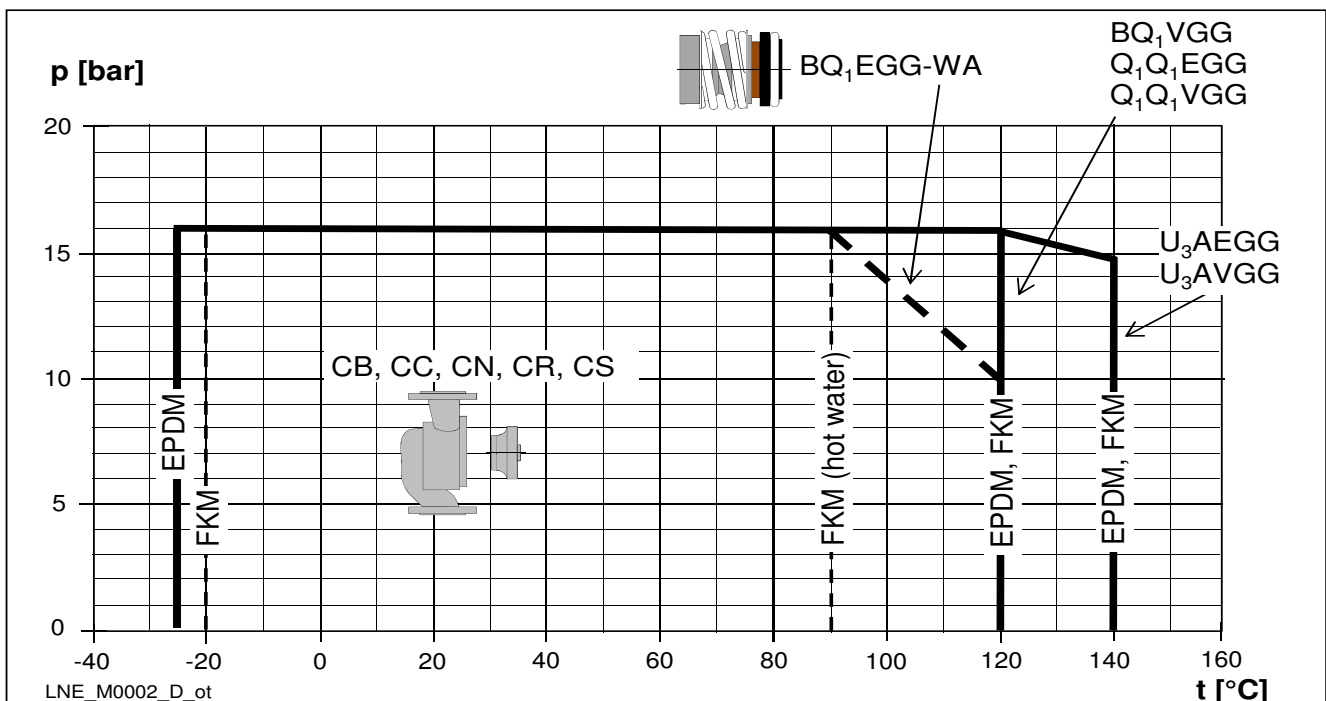
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TYPE	POSITION					PRESSURE (bar)	TEMPERATURE (°C)
	1 ROTATING ASSEMBLY	2 FIXED ASSEMBLY	3 ELASTOMERS	4 SPRINGS	5 OTHER COMPONENTS		
STANDARD MECHANICAL SEAL							
B Q ₁ E G G - WA	B	Q ₁	E	G	G	16/10	-25 ... +90/+120
OTHER TYPES OF MECHANICAL SEAL							
B Q ₁ V G G	B	Q ₁	V	G	G	16	-20 ... +120 ^{*)}
Q ₁ Q ₁ E G G	Q ₁	Q ₁	E	G	G	16	-25 ... +120
Q ₁ Q ₁ V G G	Q ₁	Q ₁	V	G	G	16	-20 ... +120 ^{*)}
U ₃ A E G G	U ₃	A	E	G	G	16	-25 ... +140
U ₃ A V G G	U ₃	A	V	G	G	16	-20 ... +140 ^{*)}

^{*)} for hot water: max. +90 °C

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PRESSURE/TEMPERATURE APPLICATION LIMITS FOR COMPLETE PUMP



e-LNE SERIES MOTORS

- Short-circuit squirrel-cage motor, enclosed construction with external ventilation (TEFC).
- Rated power from 1,5 to 37 kW for 2-pole range and from 0,25 to 90 kW for 4-pole range.
- Maximum ambient temperature: 40 °C.
- **IP55** protection degree.
- Insulation class **155 (F)**.
- **Standard** three-phase surface motors $\geq 0,75$ kW supplied as **IE3**.
- IE efficiency level according to IEC 60034-30 and IEC 60034-30-1 ($\geq 0,75$ kW).
- Electrical performances according to EN 60034-1.
- Metric cable gland according to EN 50262.

• Standard voltage

Single-phase version: 220-230 V 60 Hz
Built-in automatic reset overload protection.

Three-phase 2-pole version:

220-230/380-400 V 60 Hz for power up to 22 kW.
220/380 V 60 Hz for power above 22 kW.

Three-phase 4-pole version:

220-230/380-400 V 60 Hz for power up to 15 kW.
220/380 V 60 Hz for power from 18,5 to 55 kW.
380/660 V 60 Hz for power above 55 kW.

Overload protection to be provided by the user.

- **PTC included** as standard only for WEG motors (one per phase, 155°C).

LNEE SERIES SINGLE-PHASE MOTORS AT 60 Hz, 2 POLES

P _N kW	MOTOR TYPE	IEC SIZE*	Construction Design	INPUT CURRENT I _n (A) 220-230 V	CAPACITOR		DATA FOR 220 V 60 Hz VOLTAGE						
					μF	V	min ⁻¹	I _s / I _n	η %	cosφ	T _n Nm	T _s /T _n	T _m /T _n
1,5	SM90RB14S2/1156	90R	B14	9,28-9,35	40	450	3455	4,91	76,3	0,96	4,14	0,49	2,19
2,2	PLM90B14S2/1226	90	B14	12,3-11,7	60	450	3455	4,99	83,4	0,98	6,08	0,54	2,06

* R = Reduced size of motor casing as compared to shaft extension and flange.

LNEE-motm-2p60-en_a_te

LNEE SERIES

THREE-PHASE MOTORS AT 60 Hz, 2 POLES

P _N kW	Efficiency η_N %												IE	Year of manufacture
	Δ 220 V Y 380 V			Δ 230 V Y 400 V			Δ 380 V Y 660 V			Δ 400 V Y 690 V				
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4		
1,5	87,2	87,0	84,6	87,2	87,0	84,6	87,2	87,0	84,6	87,2	87,0	84,6	3	from 11/2014
2,2	87,7	87,2	84,7	87,7	87,2	84,7	87,7	87,2	84,7	87,7	87,2	84,7		
3	89,1	88,8	86,9	89,1	88,8	86,9	89,1	88,8	86,9	89,1	88,8	86,9		
4	91,0	91,0	89,6	91,0	91,0	89,6	91,0	91,0	89,6	91,0	91,0	89,6		
5,5	91,0	90,5	88,6	91,0	90,5	88,6	91,0	90,5	88,6	91,0	90,5	88,6		
7,5	90,8	90,2	88,1	90,8	90,2	88,1	90,8	90,2	88,1	90,8	90,2	88,1		
9,2	91,7	91,3	89,4	91,7	91,3	89,4	91,7	91,3	89,4	91,7	91,3	89,4		
11	92,4	92,3	90,9	92,4	92,3	90,9	92,4	92,3	90,9	92,4	92,3	90,9		
15	93,4	93,1	91,7	93,4	93,1	91,7	93,4	93,1	91,7	93,4	93,1	91,7		
18,5	93,5	93,2	91,9	93,5	93,2	91,9	93,5	93,2	91,9	93,5	93,2	91,9		
22	93,4	92,7	90,8	93,4	92,7	90,8	93,4	92,7	90,8	93,4	92,7	90,8		

P _N kW	Manufacturer		IEC SIZE*	Construction Design	N. of Poles	f _N Hz	Data for 380 V / 60 Hz Voltage				
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						cosφ	I _s / I _N	T _N Nm	Ts/T _N	Tm/T _N
	Model										
1,5	SM90RB14S2/315 E3		90R	SPECIAL	2	60	0,82	9,79	4,10	4,36	4,37
2,2	PLM90B14S2/322 E3		90				0,82	9,80	6,01	3,80	4,01
3	PLM90B14S2/330 E3		90				0,82	9,35	8,21	4,26	4,10
4	PLM112RB14S2/340 E3		112R				0,87	10,0	10,9	2,43	4,53
5,5	PLM112B14S2/355 E3		112				0,88	12,0	15,0	4,70	5,55
7,5	PLM132B14S2/375 E3		132				0,87	11,0	20,2	3,31	4,98
9,2	PLM132B14S2/392 E3		132				0,87	11,0	24,9	3,55	5,00
11	PLM132B14S2/3110 E3		132				0,88	10,4	29,8	3,45	4,63
	PLM132B14S3/3110 E3		132								
15	PLM160B14S3/3150 E3		160				0,89	9,81	40,3	2,79	4,41
18,5	PLM160B14S3/3185 E3		160				0,89	10,1	49,7	2,78	4,59
22	PLM160B14S3/3220 E3		160				0,87	11,3	59,1	3,27	5,18

P _N kW	Voltage U _N V								n _N min ⁻¹	Observe the regulations and codes locally in force regarding sorted waste disposal.	Operating conditions **		
	Δ		Y		Δ		Y				Altitude above sea Level (m)	T. amb min/max °C	ATEX
	220 V	230 V	380 V	400 V	380 V	400 V	660 V	690 V					
	I _N (A)												
1,5	5,58	5,53	3,22	3,19	3,23	3,22	1,86	1,86	3485 ÷ 3505	1000 VI	-15 / 40	No	
2,2	7,97	7,93	4,60	4,58	4,59	2,65	4,57	2,64	3490 ÷ 3505				
3	10,9	10,8	6,30	6,23	6,32	6,29	3,65	3,63	3485 ÷ 3500				
4	13,4	13,2	7,76	7,62	7,78	7,63	4,49	4,41	3510 ÷ 3520				
5,5	18,2	18,0	10,5	10,4	10,5	10,5	6,08	6,06	3505 ÷ 3515				
7,5	25,0	24,7	14,5	14,2	14,4	14,1	8,34	8,15	3535 ÷ 3540				
9,2	30,4	29,9	17,6	17,3	17,7	17,5	10,2	10,1	3590 ÷ 3540				
11	35,7	35,0	20,6	20,2	21,0	20,8	12,1	12,0	3530 ÷ 3540				
15	47,6	46,4	27,5	26,8	27,8	27,1	16,1	15,6	3550 ÷ 3560				
18,5	58,7	57,5	33,9	33,2	34,0	33,2	19,6	19,2	3550 ÷ 3555				
22	71,1	70,2	41,1	40,5	40,8	39,8	23,5	23,0	3555 ÷ 3560				

* R = Reduced size of motor casing as compared to shaft extension and flange.

LNEE-IE3-mott-2p60-en_a_te

** Operating conditions to be referred to motor only. About electric pump, refer to limits in user's manual.

LNES SERIES

THREE-PHASE MOTORS AT 60 Hz, 2 POLES

P _N kW	Efficiency η_N %												IE	Year of manufacture
	Δ 220 V Y 380 V			Δ 230 V Y 400 V			Δ 380 V Y 660 V			Δ 400 V Y 690 V				
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4		
1,5	87,2	87,0	84,6	87,2	87,0	84,6	87,2	87,0	84,6	87,2	87,0	84,6	3	from 11/2014
2,2	87,7	87,2	84,7	87,7	87,2	84,7	87,7	87,2	84,7	87,7	87,2	84,7		
3	89,1	88,8	86,9	89,1	88,8	86,9	89,1	88,8	86,9	89,1	88,8	86,9		
4	91,0	91,0	89,6	91,0	91,0	89,6	91,0	91,0	89,6	91,0	91,0	89,6		
5,5	91,0	90,5	88,6	91,0	90,5	88,6	91,0	90,5	88,6	91,0	90,5	88,6		
7,5	90,8	90,2	88,1	90,8	90,2	88,1	90,8	90,2	88,1	90,8	90,2	88,1		
11	92,5	92,2	90,6	92,5	92,2	90,6	92,5	92,2	90,6	92,5	92,2	90,6		
15	93,4	93,1	91,7	93,4	93,1	91,7	93,4	93,1	91,7	93,4	93,1	91,7		
18,5	93,5	93,2	91,9	93,5	93,2	91,9	93,5	93,2	91,9	93,5	93,2	91,9		
22	93,4	92,7	90,8	93,4	92,7	90,8	93,4	92,7	90,8	93,4	92,7	90,8		

P _N kW	Manufacturer		IEC SIZE*	Construction Design	N. of Poles	f _N Hz	Data for 380 V / 60 Hz Voltage				
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						cosφ	I _s / I _N	T _N Nm	Ts/T _N	Tm/T _N
	Model										
1,5	SM90RB5/315 E3		90R	B5	2	60	0,82	9,79	4,10	4,36	4,37
2,2	PLM90B5/322 E3		90				0,82	9,80	6,01	3,80	4,01
3	PLM100RB5/330 E3		100R				0,82	9,35	8,21	4,26	4,10
4	PLM112RB5/340 E3		112R				0,87	10,0	10,9	2,43	4,53
5,5	PLM132RB5/355 E3		132R				0,88	12,0	15,0	4,70	5,55
7,5	PLM132B5/375 E3		132				0,87	11,0	20,2	3,31	4,98
11	PLM160RB5/3110 E3		160R				0,89	9,00	29,6	2,43	4,26
15	PLM160B5/3150 E3		160				0,89	9,81	40,3	2,79	4,41
18,5	PLM160B5/3185 E3		160				0,89	10,1	49,7	2,78	4,59
22	PLM180RB5/3220 E3		180R				0,87	11,3	59,1	3,27	5,18

P _N kW	Voltage U _N V								n _N min ⁻¹	Observe the regulations and codes locally in force regarding sorted waste disposal.	Operating conditions **		
	Δ		Y		Δ		Y				Altitude above sea Level (m)	T. amb min/max °C	ATEX
	220 V	230 V	380 V	400 V	380 V	400 V	660 V	690 V					
	I _N (A)												
1,5	5,58	5,53	3,22	3,19	3,23	3,22	1,86	1,86	3485 ÷ 3505		1000 VI	-15 / 40	No
2,2	7,97	7,93	4,60	4,58	4,59	2,65	4,57	2,64	3490 ÷ 3505				
3	10,9	10,8	6,30	6,23	6,32	6,29	3,65	3,63	3485 ÷ 3500				
4	13,4	13,2	7,76	7,62	7,78	7,63	4,49	4,41	3510 ÷ 3520				
5,5	18,2	18,0	10,5	10,4	10,5	10,5	6,08	6,06	3505 ÷ 3515				
7,5	25,0	24,7	14,5	14,2	14,4	14,1	8,34	8,15	3535 ÷ 3540				
11	35,3	34,3	20,4	19,8	20,4	19,6	11,8	11,3	3545 ÷ 3555				
15	47,6	46,4	27,5	26,8	27,8	27,1	16,1	15,6	3550 ÷ 3560				
18,5	58,7	57,5	33,9	33,2	34,0	33,2	19,6	19,2	3550 ÷ 3555				
22	71,1	70,2	41,1	40,5	40,8	39,8	23,5	23,0	3555 ÷ 3560				

* R = Reduced size of motor casing as compared to shaft extension and flange.

LNES-IE3-mott-2p60-en_a_te

** Operating conditions to be referred to motor only. About electric pump, refer to limits in user's manual.

LNES SERIES

THREE-PHASE MOTORS AT 60 Hz, 2 POLES (from 30 to 37 kW)

P _N kW	Efficiency η_N %						IE	Year of manufacture
	Δ 220 V Y 380 V			Δ 380 V Y 660 V				
	4/4	3/4	2/4	4/4	3/4	2/4		
30	93,4	93,4	92,5	93,4	93,4	92,5	3	from 11/2014
37	94,0	94,0	94,0	94,0	94,0	93,0		

P _N kW	Manufacturer	IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 380 V / 60 Hz Voltage				
	WEG Equipamentos Eletricos S.A Reg. No. 07.175.725/0010-50 Jaragua do Sul - SC (Brazil)					cos ϕ	I _s / I _N	T _N Nm	Ts/T _N	Tm/T _N
	Model									
30	W22 200L B5 30KW E3	200	B5	2	60	0,86	7,40	80,45	2,40	2,70
37	W22 200L B5 37KW E3	200				0,87	7,50	98,98	2,90	2,90

P _N kW	Voltage U _N V				n _N min ⁻¹	See note.	Operating conditions **		
	Δ		Y				Altitude above sea Level (m)	T. amb min/max °C	ATEX
	220 V	380 V	380 V	660 V					
	I _N (A)								
	30	98,0	56,7	56,7			32,7	3560	
37	119,0	68,8	69,0	39,6	3565	1000 VI	-15 / 40	No	

** Operating conditions to be referred to motor only. About electric pump, refer to limits in user's manual.

LNES-IE3-mott37-2p60-en_a_te

Note: Observe the regulations and codes locally in force regarding sorted waste disposal.

LNEE SERIES

THREE-PHASE MOTORS AT 60 Hz, 4 POLES

P _N kW	Efficiency η_N %													Year of construction
	Δ 220 V Y 380 V			Δ 230 V Y 400 V			Δ 380 V Y 660 V			Δ 400 V Y 690 V			IE	
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4		
0,25	-	-	-	-	-	-	-	-	-	-	-	-	-	06/2011
0,37	-	-	-	-	-	-	-	-	-	-	-	-	-	
0,55	-	-	-	-	-	-	-	-	-	-	-	-	-	
0,75	83,2	82,3	78,4	83,2	82,3	78,4	83,2	82,3	78,4	83,2	82,3	78,4	2	from 11/2014
1,1	87,0	86,2	83,2	87,0	86,2	83,2	87,0	86,2	83,2	87,0	86,2	83,2	3	
1,5	88,0	87,0	84,0	88,0	87,0	84,0	88,0	87,0	84,0	88,0	87,0	84,0		
2,2	89,5	89,4	87,5	89,5	89,4	87,5	89,5	89,4	87,5	89,5	89,4	87,5		
3	90,0	89,5	87,3	90,0	89,5	87,3	90,0	89,5	87,3	90,0	89,5	87,3		
4	90,0	89,9	88,1	90,0	89,9	88,1	90,0	89,9	88,1	90,0	89,9	88,1		
5,5	91,7	91,2	89,4	91,7	91,2	89,4	91,7	91,2	89,4	91,7	91,2	89,4		
7,5	91,7	91,8	90,4	91,7	91,8	90,4	91,7	91,8	90,4	91,7	91,8	90,4		

P _N kW	Manufacturer		IEC SIZE*	Construction Design	N. of Poles	f _N Hz	Data for 380 V / 60 Hz				
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						cosφ	I _s / I _N	TN Nm	Ts/T _N	Tm/T _N
	Model										
0,25	SM471B5/302		71	B5	4	60	0,68	3,45	1,45	2,37	2,15
0,37	SM471B5/304		71				0,68	3,52	2,17	2,65	2,05
0,55	SM490RB14S2/305		90R	0,77			3,55	3,18	1,80	1,90	
0,75	LLM490RB14S2/307		90R	0,75			6,26	4,14	2,82	3,53	
1,1	PLM490B5S2/311 E3		90	0,70			6,55	6,02	2,50	3,52	
1,5	PLM490B5S3/315 E3		90	0,69			7,34	8,18	2,99	4,10	
2,2	PLM4100B5S3/322 E3		100	0,77			7,74	12,0	2,28	3,80	
3	PLM4100B5S3/330 E3		100	0,74			8,18	16,3	2,35	4,39	
4	PLM4112B5S3/340 E3		112	0,79			8,81	21,8	3,01	4,18	
5,5	PLM4132B14S3/355 E3		132	0,77			7,67	29,7	2,63	3,61	
7,5	PLM4132B14S3/375 E3		132	0,79			7,88	40,7	2,54	3,53	

P _N kW	Voltage U _N V								n _N min ⁻¹	Observe the regulations and codes locally in force regarding sorted waste disposal.	Operating conditions **		
	Δ		Y		Δ		Y				Altitude above sea Level (m)	T. amb min/max °C	ATEX
	220 V	230 V	380 V	400 V	380 V	400 V	660 V	690 V					
	I _N (A)												
0,25	1,51	-	0,87	-	-	-	-	-	1650		VI	-15 / 40	No
0,37	2,18	-	1,26	-	-	-	-	-	1630				
0,55	2,74	-	1,58	-	-	-	-	-	1650				
0,75	3,15	3,13	1,82	1,81	1,81	1,80	1,05	1,04	1730 ÷ 1735				
1,1	4,76	4,77	2,75	2,75	2,72	2,72	1,57	1,57	1740 ÷ 1750				
1,5	6,53	6,59	3,77	3,80	3,78	3,81	2,18	2,20	1750 ÷ 1755				
2,2	8,4	8,28	4,84	4,78	4,82	4,76	2,78	2,75	1755 ÷ 1760				
3	12,0	12,0	6,91	6,95	6,75	6,72	3,89	3,88	1755 ÷ 1760				
4	14,7	14,5	8,50	8,39	8,46	8,35	4,89	4,82	1750 ÷ 1760				
5,5	20,6	20,4	11,9	11,8	12,0	11,9	6,95	6,88	1765 ÷ 1770				
7,5	27,1	26,7	15,7	15,4	15,7	15,5	9,08	8,94	1760 ÷ 1765				

* R = Reduced size of motor casing as compared to shaft extension and flange.

LNEE-IE3-mott-4p60-en_a_te

** Operating conditions to be referred to motor only. About electric pump, refer to limits in user's manual.

LNES SERIES

THREE-PHASE MOTORS AT 60 Hz, 4 POLES

P _N kW	Efficiency η_N %												Year of construction	
	Δ 220 V Y 380 V			Δ 230 V Y 400 V			Δ 380 V Y 660 V			Δ 400 V Y 690 V				IE
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4		
	0,55	-	-	-	-	-	-	-	-	-	-	-		
0,75	83,2	82,3	78,4	83,2	82,3	78,4	83,2	82,3	78,4	83,2	82,3	78,4	2	2011
1,1	87,0	86,2	83,2	87,0	86,2	83,2	87,0	86,2	83,2	87,0	86,2	83,2	3	
1,5	88,0	87,0	84,0	88,0	87,0	84,0	88,0	87,0	84,0	88,0	87,0	84,0		
2,2	89,5	89,4	87,5	89,5	89,4	87,5	89,5	89,4	87,5	89,5	89,4	87,5		
3	90,0	89,5	87,3	90,0	89,5	87,3	90,0	89,5	87,3	90,0	89,5	87,3		
4	90,0	89,9	88,1	90,0	89,9	88,1	90,0	89,9	88,1	90,0	89,9	88,1		
5,5	91,7	91,2	89,4	91,7	91,2	89,4	91,7	91,2	89,4	91,7	91,2	89,4		
7,5	91,7	91,8	90,4	91,7	91,8	90,4	91,7	91,8	90,4	91,7	91,8	90,4		
11	92,7	92,7	91,4	92,7	92,7	91,4	92,7	92,7	91,4	92,7	92,7	91,4		
15	93,3	92,9	91,4	93,3	92,9	91,4	93,3	92,9	91,4	93,3	92,9	91,4		

P _N kW	Manufacturer	IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 380 V / 60 Hz				
	Xylem Service Italia Sr Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia					cosφ	Is / I _N	TN Nm	Ts/T _N	Tm/T _N
	Model									
0,55	SM480B5/305	80	B5	4	60	0,77	3,55	3,18	1,80	1,90
0,75	LLM480B5/307	80				0,75	6,26	4,14	2,82	3,53
1,1	PLM490B5/311 E3	90				0,70	6,55	6,02	2,50	3,52
1,5	PLM490B5/315 E3	90				0,69	7,34	8,18	2,99	4,1
2,2	PLM4100B5/322 E3	100				0,77	7,74	12,0	2,28	3,8
3	PLM4100B5/330 E3	100				0,74	8,18	16,3	2,35	4,39
4	PLM4112B5/340 E3	112				0,79	8,81	21,8	3,01	4,18
5,5	PLM4132B5/355 E3	132				0,77	7,67	29,7	2,63	3,61
7,5	PLM4132B5/375 E3	132				0,79	7,88	40,7	2,54	3,53
11	PLM4160B5/3110 E3	160				0,82	7,50	59,3	2,46	3,27
15	PLM4160B5/3150 E3	160				0,79	8,83	80,7	2,91	3,99

P _N kW	Voltage U _N V								n _N min ⁻¹	Observe the regulations and codes locally in force regarding sorted waste disposal.	Operating conditions **		
	Δ		Y		Δ		Y				Altitude above sea Level (m)	T. amb min/max °C	ATEX
	220 V	230 V	380 V	400 V	380 V	400 V	660 V	690 V					
	I _N (A)												
0,55	2,74	-	1,58	-	-	-	-	-	1650		1000 VI	-15 / 40	No
0,75	3,15	3,13	1,82	1,81	1,81	1,80	1,05	1,04	1730 ÷ 1735				
1,1	4,76	4,77	2,75	2,75	2,72	2,72	1,57	1,57	1740 ÷ 1750				
1,5	6,53	6,59	3,77	3,80	3,78	3,81	2,18	2,20	1750 ÷ 1755				
2,2	8,38	8,28	4,84	4,78	4,82	4,76	2,78	2,75	1755 ÷ 1760				
3	12,0	12,0	6,91	6,95	6,75	6,72	3,89	3,88	1755 ÷ 1760				
4	14,7	14,5	8,50	8,39	8,46	8,35	4,89	4,82	1750 ÷ 1760				
5,5	20,6	20,4	11,9	11,8	12,0	11,9	6,95	6,88	1765 ÷ 1770				
7,5	27,1	26,7	15,7	15,4	15,7	15,5	9,08	8,94	1760 ÷ 1765				
11	38,1	37,4	22,0	21,6	22,0	21,5	12,7	12,4	1770 ÷ 1770				
15	53,2	53,4	30,7	30,8	30,4	30,2	17,5	17,4	1770 ÷ 1775				

** Operating conditions to be referred to motor only. About electric pump, refer to limits in user's manual.

LNES-IE3-mott15-4p60-en_a_te

LNES SERIES

THREE-PHASE MOTORS AT 60 Hz, 4 POLES (from 18,5 to 90 kW)

P _N kW	Efficiency η_N %						IE	Year of construction
	Δ 220 V Y 380 V			Δ 380 V Y 660 V				
	4/4	3/4	2/4	4/4	3/4	2/4		
18,5	93,8	93,6	92,4	93,8	93,6	92,4	3	from 11/2014
22	94,0	93,8	93,0	94,0	93,8	93,0		
30	94,4	94,2	93,6	94,4	94,2	93,6		
37	93,2	92,9	91,7	93,2	92,9	91,7		
45	95,1	94,7	94,2	95,1	94,7	94,2		
55	95,4	95,0	94,2	95,4	95,0	94,2		
75	-	-	-	95,5	95,1	94,0		
90	-	-	-	95,6	95,3	94,7		

P _N kW	Manufacturer	IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 380 V / 60 Hz				
	WEG Equipamentos Eletricos S.A. Reg. No 07.175.725/0010-50 Jaragua do Sul - SC (Brazil)					cosφ	Is / I _N	TN Nm	Ts/T _N	Tm/T _N
	Model									
18,5	W22 180M4-B5 18,5kW E3	180	B5	4	60	0,83	7,00	100,0	3,00	3,10
22	W22 180L4-B5 22kW E3	180				0,83	7,20	118,6	3,00	3,00
30	W22 200L4-B5 30kW E3	200				0,84	6,60	161,7	2,50	2,80
37	W22 225S/M4-B5 37kW E3	225				0,86	6,40	199,0	2,10	2,60
45	W22 225S/M4-B5 45kW E3	225				0,85	7,50	241,1	2,40	2,80
55	W22 250S/M4-B5 55kW E3	250				0,86	7,90	295,0	2,70	3,00
75	W22 280S/M4-B5 75kW E3	280				0,86	7,40	400,0	2,00	2,70
90	W22 280S/M4-B5 90kW E3	280				0,86	7,20	482,0	2,00	2,70

P _N kW	Voltage U _N V				n _N min ⁻¹	Observe the regulations and codes locally in force regarding sorted waste disposal.	Operating conditions **		
	Δ		Y				Altitude above sea Level (m)	T. amb min/max °C	ATEX
	220 V		380 V						
	I _N (A)								
18,5	62,4	36,1	36,1	20,8	1770		≤ 1000	-15 / 40	No
22	74,0	42,8	42,8	24,7	1775				
30	99,2	57,4	57,4	33,1	1775				
37	121,0	70,1	70,1	40,4	1771				
45	146,0	84,5	84,5	48,7	1780				
55	176,0	102,0	102,0	58,7	1780				
75	-	-	139,0	80,0	1785				
90	-	-	167,0	96,0	1785				

** Operating conditions to be referred to motor only. About electric pump, refer to limits in user's manual.

LNES-IE3-mott90-4p60-en_a_te

MOTOR NOISE

The tables below show the mean sound pressure levels (Lp) measured at 1 meter's distance in a free field according to the A curve (ISO 1680 standard).

The noise values are measured with idling 60 Hz motor with a tolerance of 3 dB (A).

LNEE, LNES MOTORS 2 POLES 60 Hz

POWER kW	MOTOR TYPE IEC SIZE *	NOISE LpA dB
1,5	90R	<70
2,2	90	<70
3	90	<70
	100R	<70
4	112R	<70
5,5	112	<70
	132R	<70
7,5	132	71
9,2	132	73
11	132	73
	160R	71
15	160	71
18,5	160	73
22	160	70
	180R	70

*R=Reduced size of motor casing as compared to shaft extension and flange.

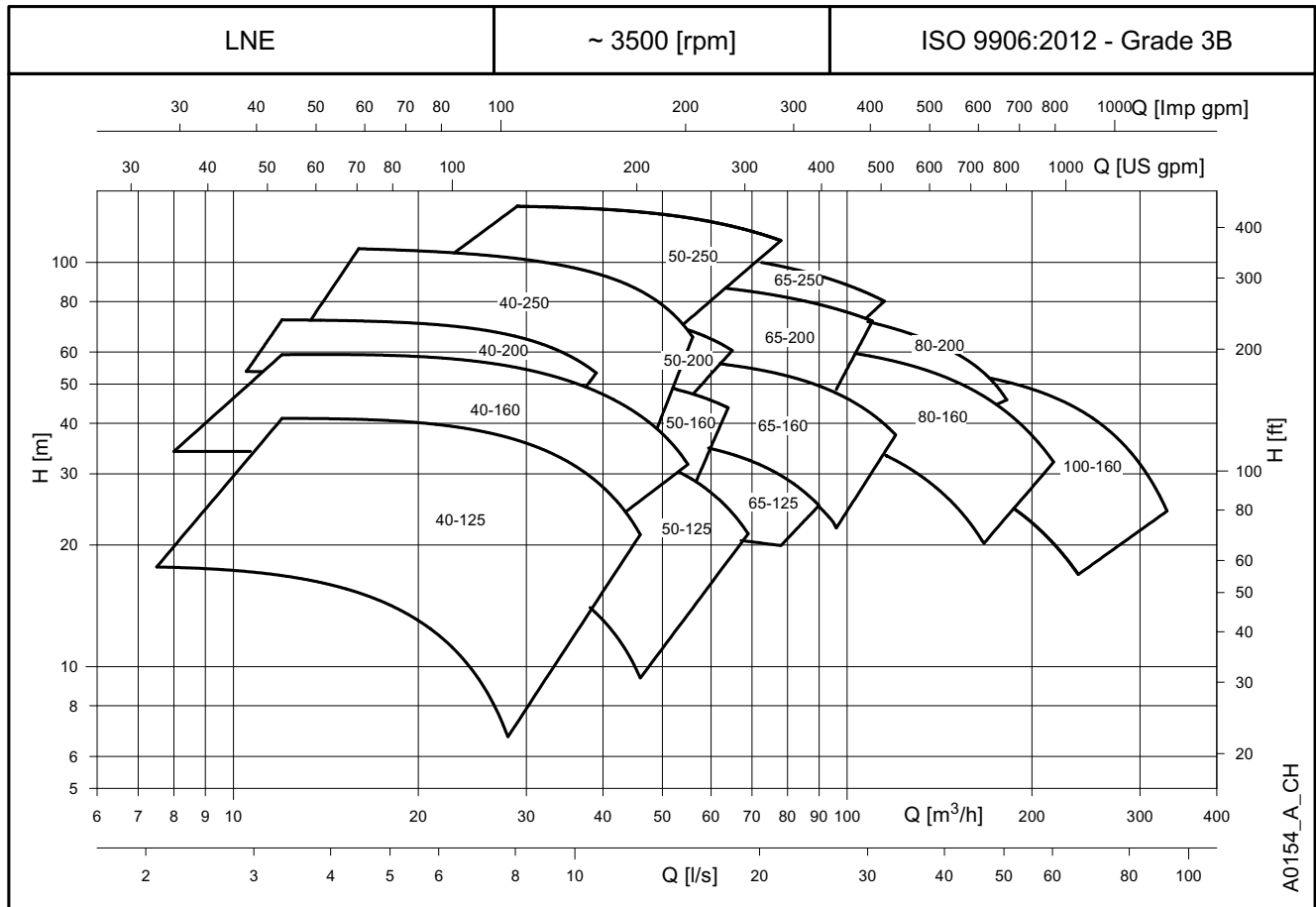
LNEE, LNES MOTORS 4 POLES 60 Hz

POWER kW	MOTOR TYPE IEC SIZE *	NOISE LpA dB
0,25	71	<70
0,37	71	<70
0,55	80	<70
	90R	<70
0,75	80	<70
	90R	<70
1,1	90	<70
1,5	90	<70
2,2	100	<70
3	100	<70
4	112	<70
5,5	132	<70
7,5	132	<70
11	160	<70
15	160	<70
18,5	180	<70
22	180	<70
30	200	<70
37	225	<70
45	225	<70
55	250	<70
75	280	73
90	280	73

LNE_mott60-en_a_tr

e-LNE SERIES

HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 2 POLES



e-LNE 40, 50, 65 SERIES

HYDRAULIC PERFORMANCE TABLE AT 60 Hz, 2 POLES

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø mm	○ ● (1)	ηp % (2)	l/s	0	2,1	3,3	4,4	5,6	6,7	7,8	8,9	10,0	11,1	12,2	13,3	15,6
					m³/h	0	8	12	16	20	24	28	32	36	40	44	48	56
					H = TOTAL HEAD METRES COLUMN OF WATER													
40-125/15 *	1,5	104	○	53,8	16,8	17,6	16,8	15,2	13,0	10,2	6,7							
40-125/22 *	2,2	118	○	57,7	21,6		22,3	21,1	19,3	16,9	13,9	10,4						
40-125/30	3	128	○	60,7	27,1		28,1	27,1	25,5	23,3	20,6	17,4	13,5					
40-125/40	4	133	○	62,4	31,4		33,0	32,4	31,3	29,6	27,3	24,4	20,8	16,7				
40-125/55	5,5	145	●	67,0	39,4		41,1	40,9	40,2	38,8	36,9	34,4	31,4	27,8	23,6			
40-160/40	4	137	○	60,1	33,5		34,0	33,4	32,2	30,5	28,3	25,5	22,3					
40-160/55	5,5	150	○	63,1	41,2		42,4	42,1	41,1	39,5	37,4	34,9	31,9	28,5	24,5			
40-160/75	7,5	160,5	○	63,7	48,6		50,3	50,2	49,5	48,1	46,1	43,6	40,8	37,7	34,2	30,2		
40-160/92	9,2	171	○	65,9	57,2		59,1	59,1	58,5	57,3	55,4	53,1	50,3	47,2	43,7	39,8		
40-160/110A	11	171	●	65,9	57,2		59,1	59,1	58,5	57,3	55,4	53,1	50,3	47,2	43,7	39,8		
40-200/75	7,5	171	○	54,3	54,7		53,6	52,8	51,4	49,2	46,1	41,9						
40-200/92	9,2	186	○	54,5	65,2		64,1	63,3	62,2	60,5	58,0	54,6	50,1					
40-200/110A	11	186	○	54,5	65,2		64,1	63,3	62,2	60,5	58,0	54,6	50,1					
40-200/110	11	198	●	57,6	72,2		72,1	71,6	70,7	68,9	66,3	62,6	57,7					
40-250/150	15	208	○	51,7	82,1			80,2	79,1	77,5	75,2	72,0	67,6	62,1	55,2	47,1		
40-250/185	18,5	226,5	○	52,7	97,3			95,1	93,8	92,3	90,3	87,7	84,4	80,0	74,4	67,5		
40-250/220	22	239	●	53,0	109,2			108,0	106,8	105,0	102,8	100,1	96,8	92,8	87,9	81,9	65,4	

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø mm	○ ● (1)	ηp % (2)	l/s	0	3,3	5,0	6,7	8,3	10,0	11,7	13,3	15,0	16,7	18,3	20,0	21,7
					m³/h	0	12	18	24	30	36	42	48	54	60	66	72	78
H = TOTAL HEAD METRES COLUMN OF WATER																		
50-125/30	3	105	○	59,9	21,1	20,9	20,4	19,2	17,3	15,0	11,9							
50-125/40	4	118	○	64,9	27,4		26,2	25,4	24,1	22,1	19,4	15,9						
50-125/55	5,5	130	○	67,4	33,8		32,7	32,1	31,1	29,6	27,5	24,9	21,5	17,2				
50-125/75	7,5	135	●	70,6	38,8		37,4	37,0	36,4	35,5	34,2	32,3	30,0	27,0	23,3			
50-160/55	5,5	127	○	66,2	31,8	32,0	31,8	31,3	30,3	28,9	27,0	24,4						
50-160/75	7,5	139	○	68,3	39,0		39,0	38,7	38,1	37,1	35,6	33,6	30,9					
50-160/92	9,2	154	○	69,8	48,1		48,0	47,9	47,6	46,8	45,7	44,0	41,8	39,1				
50-160/110A	1,1	154	○	69,8	48,1		48,0	47,9	47,6	46,8	45,7	44,0	41,8	39,1				
50-160/110	11	163	●	69,9	54,0		54,2	54,0	53,5	52,7	51,5	50,0	48,0	45,6				
50-200/92	9,2	165	○	58,9	50,8		50,9	50,2	49,0	47,2	44,6	41,2						
50-200/110A	11	165	○	58,9	50,8		50,9	50,2	49,0	47,2	44,6	41,2						
50-200/110	11	177	○	59,1	58,1		58,2	57,4	56,0	54,2	51,6	48,3						
50-200/150	15	189	○	60,5	70,2		70,2	69,5	68,3	66,7	64,5	61,7	58,0	53,4				
50-200/185	18,5	199	●	62,7	78,6			79,3	78,1	76,5	74,5	71,9	68,7	64,7				
50-250/185	18,5	210	○	59,4	87,9			85,7	84,1	82,1	79,8	77,3	74,7					
50-250/220	22	225	○	60,4	98,9			98,0	96,5	94,5	92,1	89,2	86,1	82,6				
50-250/300	30	243	○	64,1	121,8				121,0	119,5	117,2	114,3	111,0	107,3	103,4			
50-250/370	37	257,5	●	64,2	138,1				137,5	136,4	134,7	132,4	129,5	126,0	122,1	117,8	113,2	

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø mm	○ ● (1)	η _p % (2)	l/s	0	6,1	8,6	11,1	13,6	16,1	18,6	21,1	23,6	26,1	28,6	31,1	33,3
					m³/h	0	22	31	40	49	58	67	76	85	94	103	112	120
					H = TOTAL HEAD METRES COLUMN OF WATER													
65-125/55	5,5	118	○	53,2	25,9	25,0	24,3	23,2	21,6									
65-125/75	7,5	130	○	60,1	32,4		30,3	29,4	28,1	26,3	23,8	20,7						
65-125/92	9,2	140	○	72,9	37,9		35,9	35,2	34,2	32,6	30,4	27,6	24,1					
65-125/110A	11	140	○	72,9	37,9		35,9	35,2	34,2	32,6	30,4	27,6	24,1					
65-125/110	11	144	●	73,5	40,1		38,1	37,5	36,5	35,0	33,0	30,4	27,1					
65-160/110	11	152	○	69,9	44,1		41,7	40,9	39,8	38,2	36,1	33,5	30,4	26,7				
65-160/150	15	170	○	73,0	55,7		53,7	53,1	52,2	50,9	49,1	47,0	44,3	41,2	37,7	33,5		
65-160/185	18,5	176	●	74,2	38,5		37,9	37,3	36,4	35,2	33,6	31,6	29,3	26,5	23,5			
65-200/185	18,5	179	○	69,5	61,5		62,6	61,9	60,8	59,2	57,3	55,1	52,4	49,3				
65-200/220	22	195	○	69,7	72,3		73,3	72,6	71,3	69,4	67,0	64,4	61,5	58,5				
65-200/300	30	209	●	70,3	90,2		90,5	90,0	89,0	87,4	85,4	83,0	80,3	77,4	74,2			
65-250/220	22	202	○	69,1	77,2		77,7	76,6	74,7	72,2	69,3	66,0	62,3					
65-250/300	30	220	○	70,0	96,9		97,8	97,0	95,5	93,4	90,7	87,5	84,0	80,1	76,0			
65-250/370	37	232	●	70,3	108,3			108,4	106,8	104,7	101,9	98,6	94,9	90,8	86,4	81,8		

Hydraulic performances in compliance with ISO 9906:2012 - Grade 3B (ex ISO 9906:1999 - Annex A)

LNE-40-50-65_2p60-en_a_th

(1) ● = Full impeller diameter - ○ = Trimmed impeller diameter (2) Hydraulic efficiency of pump.

*Available also in single-phase version.

e-LNE 80, 100 SERIES

HYDRAULIC PERFORMANCE TABLE AT 60 Hz, 2 POLES

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø	○ ●	η _p %	l/s	0	9,2	13,9	18,6	23,3	28,1	32,8	37,5	42,2	46,9	51,7	56,4	60,3
					m ³ /h	0	33	50	67	84	101	118	135	152	169	186	203	217
		mm	(1)	(2)	H = TOTAL HEAD METRES COLUMN OF WATER													
80-160/150	15	151	○	79,4	45,1		44,5	43,3	41,5	39,1	36,2	32,8	28,9	24,5				
80-160/185	18,5	159	○	79,7	50,5			48,7	46,9	44,6	41,7	38,2	34,2	29,7	24,7			
80-160/220	22	168	○	79,9	57,8			56,1	54,5	52,4	49,7	46,4	42,6	38,3	33,5	28,3		
80-160/300	30	180	●	80,4	67,4			64,8	63,6	61,9	59,8	57,2	54,0	50,3	46,1	41,5	36,4	32,1
80-200/220	22	173	○	72,9	59,6		60,3	58,9	56,7	53,9	50,5	46,3	40,5					
80-200/300	30	189	○	74,8	71,8			71,8	70,0	67,4	64,0	59,9	54,9	48,9				
80-200/370	37	199	●	78,0	79,9			80,5	79,0	76,4	73,0	68,9	64,3	59,0	52,4			

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø mm	○ ● (1)	η _p % (2)	l/s	0	14,7	21,7	28,6	35,6	42,5	49,4	56,4	63,3	70,3	77,2	84,2	92
					m³/h	0	53	78	103	128	153	178	203	228	253	278	303	332
	H = TOTAL HEAD METRES COLUMN OF WATER																	
100-160/185	18,5	144	○	70,5	37,1		36,6	35,6	34,0	31,8	29,1	25,8	22,2	18,4				
100-160/220	22	152	○	73,3	42,6			40,9	39,5	37,7	35,3	32,3	28,7	24,7	20,2			
100-160/300	30	168	○	75,9	52,9			50,5	49,4	47,9	45,9	43,3	40,2	36,4	31,9	27,0		
100-160/370	37	177	●	81,0	60,2			57,6	56,5	55,1	53,3	51,0	48,2	44,9	40,9	36,3	31,0	24,2

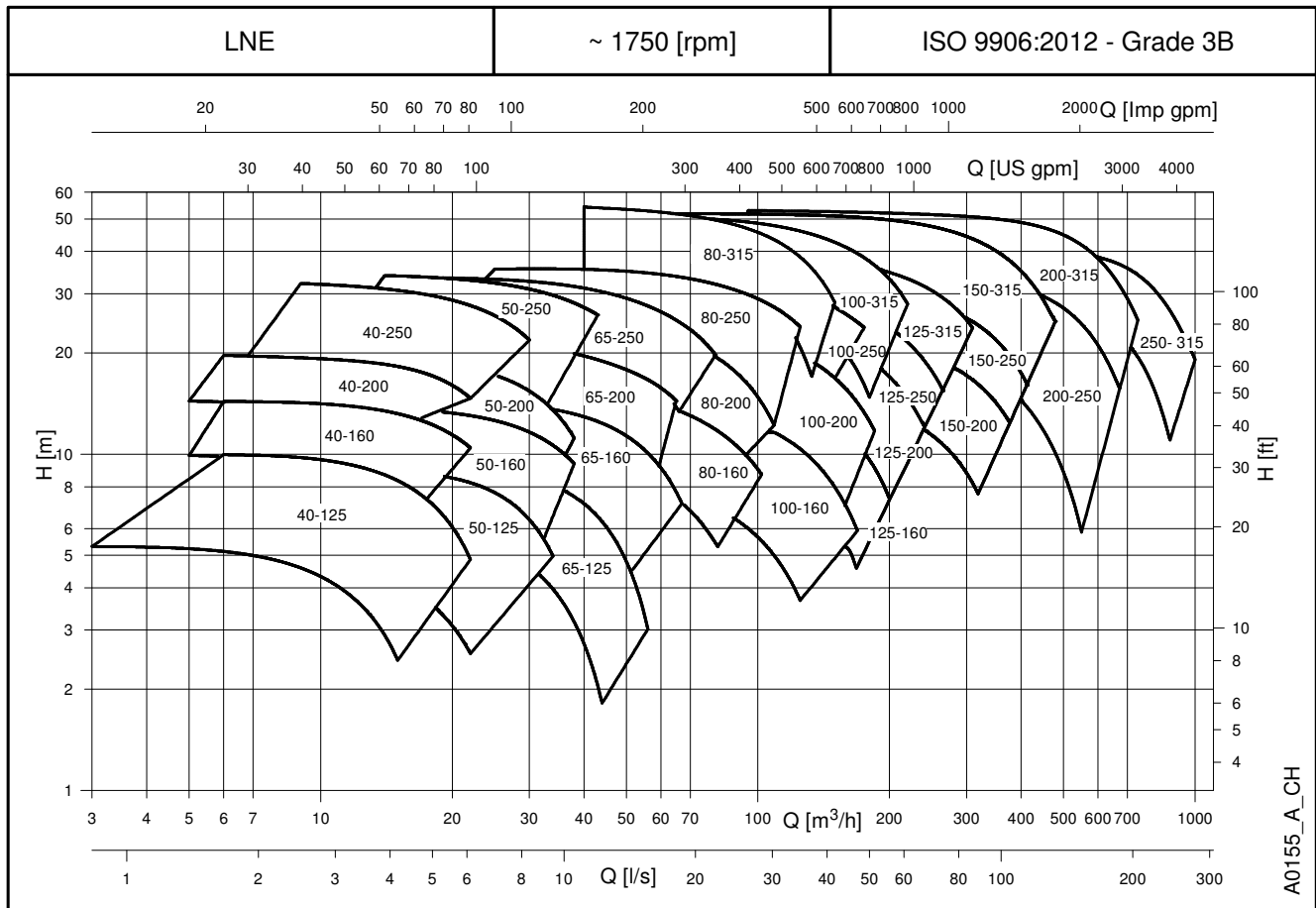
Hydraulic performances in compliance with ISO 9906:2012 - Grade 3B (ex ISO 9906:1999 - Annex A)

LNE-80-100_2p60-en_a_th

(1) ● = Full impeller diameter - ○ = Trimmed impeller diameter (2) Hydraulic efficiency of pump.

e-LNE SERIES

HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 4 POLES



e-LNE 40, 50, 65 SERIES

HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 4 POLES

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø mm	○ ● (1)	ηp % (2)	l/s 0	0,8	1,4	1,9	2,5	3,1	3,6	4,2	4,7	5,3	5,8	6,4	8,3	
					m³/h 0	3	5	7	9	11	13	15	17	19	21	23	30	
					H = TOTAL HEAD METRES COLUMN OF WATER													
40-125/02	0,25	118	○	52,9	5,3	5,3	5,2	5,0	4,6	4,0	3,3	2,4						
40-125/03	0,37	128	○	59,0	6,5		6,6	6,4	6,1	5,6	5,0	4,2	3,2					
40-125/05	0,55	133	○	59,8	7,6		7,9	7,8	7,6	7,2	6,6	5,9	5,0	3,9				
40-125/07	0,75	145	●	61,2	9,5			9,9	9,8	9,4	9,0	8,3	7,5	6,6	5,5			
40-160/05	0,55	150	○	60,3	9,8		9,9	9,8	9,5	9,1	8,6	7,9	7,0					
40-160/07	0,75	160,5	○	61,7	11,9		12,1	12,1	11,9	11,6	11,2	10,6	9,9	9,1				
40-160/11	1,1	171	●	63,6	14,0			14,3	14,2	14,0	13,7	13,2	12,6	11,8	10,9			
40-200/11	1,1	186	○	53,3	16,2		15,9	15,7	15,4	15,0	14,5	13,8	12,8					
40-200/15	1,5	198	○	54,6	18,9		18,3	18,1	17,8	17,5	17,1	16,5	15,7	14,7				
40-200/22	2,2	205	●	55,3	20,4			19,5	19,3	19,1	18,7	18,2	17,5	16,6	15,4			
40-250/22	2,2	226,5	○	51,4	24,4				23,3	23,0	22,5	21,9	21,2	20,3	19,2	17,8		
40-250/30A	3	239	○	51,7	27,3				26,5	26,2	25,8	25,2	24,4	23,5	22,3	20,8		
40-250/30	3	252	○	53,3	30,7				29,8	29,4	28,9	28,3	27,5	26,6	25,6	24,4		
40-250/40	4	259	●	54,1	33,0				32,1	31,8	31,3	30,7	30,0	29,1	28,2	27,1	21,8	

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø mm	○ ● (1)	ηp % (2)	l/s 0	1,7	2,5	3,3	4,2	5,0	5,8	6,7	7,5	8,3	9,2	10,0	11,9	
					m³/h 0	6	9	12	15	18	21	24	27	30	33	36	43	
H = TOTAL HEAD METRES COLUMN OF WATER																		
50-125/03	0,37	105	○	59,7	5,1	5,0	4,8	4,6	4,1	3,6	2,8							
50-125/05	0,55	118	○	64,6	6,7		6,4	6,2	5,9	5,4	4,8	4,0						
50-125/07	0,75	130	○	65,7	8,5		8,0	7,9	7,7	7,4	6,9	6,3	5,4	4,3				
50-125/11	1,1	135	●	69,3	9,6		9,2	9,1	8,9	8,7	8,4	7,9	7,2	6,4	5,3			
50-160/07	0,75	127	○	64,2	7,9	7,9	7,8	7,7	7,5	7,1	6,6	5,9	5,0	4,0				
50-160/11	1,1	139	○	64,6	9,7		9,6	9,5	9,3	9,1	8,7	8,1	7,5	6,6	5,6			
50-160/15A	1,5	154	○	69,0	12,0		11,9	11,9	11,8	11,6	11,3	10,9	10,4	9,6	8,8	7,7		
50-160/15	1,5	163	●	69,1	13,9		13,8	13,8	13,6	13,4	13,1	12,7	12,2	11,6	10,9	10,0		
50-200/15	1,5	177	○	56,4	14,1		14,3	14,1	13,7	13,2	12,5	11,6	10,5	9,2	7,6			
50-200/22	2,2	189	○	57,5	17,2		17,2	17,0	16,8	16,4	15,8	15,0	14,1	12,9	11,4	9,7		
50-200/30	3	199	●	57,9	19,4			19,3	19,1	18,7	18,2	17,5	16,5	15,4	14,0	12,4		
50-250/30	3	225	○	59,5	24,4			24,0	23,7	23,2	22,6	21,9	21,1	20,1	18,9	17,6		
50-250/40	4	243	○	61,0	30,0				29,2	28,8	28,3	27,7	26,9	26,0	25,0	23,9		
50-250/55	5,5	258	●	62,0	34,1				33,9	33,5	33,0	32,5	31,8	30,9	30,0	28,9	25,9	

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY												
		Ø mm	○ ● (1)	η _p % (2)	l/s 0	3,1	4,7	6,4	8,1	9,7	11,4	13,1	14,7	16,4	18,1	19,7	22,2
					m³/h 0	11	17	23	29	35	41	47	53	59	65	71	80
H = TOTAL HEAD METRES COLUMN OF WATER																	
65-125/07	0,75	118	○	60,6	6,3	6,1	5,9	5,5	4,8	3,8	2,5						
65-125/11A	1,1	130	○	65,0	8,0		7,4	7,1	6,5	5,6	4,4	3,0					
65-125/11	1,1	140	○	69,2	9,2		8,7	8,4	7,9	7,2	6,1	4,6	2,9				
65-125/15	1,5	144	●	69,6	9,8		9,3	9,1	8,6	7,9	6,9	5,6	3,9				
65-160/11	1,1	144	○	68,6	9,6	9,2	9,0	8,7	8,2	7,4	6,3	5,0					
65-160/15	1,5	152	○	69,4	11,0		10,2	9,9	9,5	8,8	7,8	6,5	4,8				
65-160/22	2,2	170	○	71,1	13,8		13,2	12,9	12,5	11,9	11,1	10,0	8,8	7,2			
65-160/30	3	176	●	71,6	15,6		14,6	14,3	14,0	13,5	12,8	11,9	10,7	9,3	7,7		
65-200/22	2,2	168	○	66,4	13,0		13,1	12,9	12,5	11,8	10,9	9,6	8,1				
65-200/30A	3	179	○	66,7	15,2		15,5	15,3	14,8	14,1	13,2	12,1	10,6				
65-200/30	3	195	○	67,6	17,8		17,9	17,6	17,0	16,2	15,3	14,3	13,1	11,4			
65-200/40	4	209	●	68,7	21,9		22,0	21,7	21,1	20,4	19,4	18,4	17,2	16,0	14,4		
65-250/40	4	220	○	68,6	23,8		23,8	23,4	22,6	21,6	20,5	19,1	17,7	16,0	13,8		
65-250/55	5,5	232	○	69,2	27,1		27,1	26,6	25,9	24,9	23,7	22,3	20,8	19,2	17,4	15,4	
65-250/75	7,5	256	●	69,8	33,3			33,2	32,7	32,0	31,0	29,7	28,3	26,7	25,0	23,1	19,7

Hydraulic performances in compliance with ISO 9906:2012 - Grade 3B (ex ISO 9906:1999 - Annex A)

LNE-40-50-65_4p60-en_a_th

(1) ● = Full impeller diameter - ○ = Trimmed impeller diameter (2) Hydraulic efficiency of pump.

e-LNE 80, 100 SERIES

HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 4 POLES

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø mm	○ ● (1)	η _p % (2)	l/s	0	4,2	7,5	10,8	14,2	17,5	20,8	24,2	27,5	30,8	34,2	37,5	41,7
					m ³ /h	0	15	27	39	51	63	75	87	99	111	123	135	150
H = TOTAL HEAD METRES COLUMN OF WATER																		
80-160/22A	2,2	151	○	75,4	11,0		10,5	9,8	8,8	7,6	6,1							
80-160/22	2,2	159	○	76,3	12,4		11,9	11,2	10,2	8,9	7,4							
80-160/30	3	168	○	76,7	14,4		13,8	13,1	12,2	10,9	9,5	7,7						
80-160/40	4	180	●	79,3	16,7		16,2	15,6	14,8	13,7	12,4	10,9	9,2					
80-200/30	3	173	○	71,5	14,9	14,9	14,3	13,5	12,4	10,7	8,1							
80-200/40	4	189	○	72,6	17,8		17,5	16,7	15,6	14,0	11,9	9,2						
80-200/55A	5,5	199	○	74,1	19,9		19,8	19,1	18,0	16,6	14,6	11,9						
80-200/55	5,5	210	○	75,4	23,1		22,6	21,9	21,0	19,6	17,7	15,2	11,8					
80-200/75	7,5	220	●	77,1	25,6		24,9	24,4	23,5	22,2	20,4	18,0	15,1					
80-250/110A	11	243	○	74,5	29,7		30,9	30,7	30,0	28,8	27,3	25,4	23,4	21,0				
80-250/110	11	258	●	77,7	33,7		35,5	35,5	34,9	33,9	32,6	31,0	29,1	26,9	24,4			
80-315/150	15,0	292	○	65,6	41,4		40,8	40,1	39,1	37,7	35,9	33,5	30,4	26,5	21,7			
80-315/185	18,5	315	○	66,6	48,5		47,9	47,2	46,2	44,9	43,3	41,2	38,6	35,2	31,0	25,8		
80-315/220	22	334	●	67,8	55,4		54,9	54,2	53,3	52,1	50,4	48,4	45,9	42,8	39,1	34,8	28,3	

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY												
		Ø mm	○ ● (1)	η _p % (2)	l/s 0	6,4	11,4	16,4	21,4	26,4	31,4	36,4	40,3	45,3	50,3	55,3	61,1
					m ³ /h 0	23	41	59	77	95	113	131	145	163	181	199	220
					H = TOTAL HEAD METRES COLUMN OF WATER												
100-160/22	2,2	144	○	70,7	9,2		8,6	8,0	7,1	6,0	4,7						
100-160/30	3	152	○	73,6	10,6		10,0	9,5	8,7	7,7	6,3	4,8					
100-160/40	4	168	○	76,5	13,1		12,4	12,0	11,3	10,4	9,1	7,5	6,1				
100-160/55	5,5	177	●	79,4	14,9		14,3	13,9	13,3	12,5	11,3	9,8	8,5	6,6			
100-200/55	5,5	188	○	77,2	17,6		17,5	16,8	15,8	14,6	13,0	11,2	9,4				
100-200/75	7,5	201	○	79,0	20,3		20,4	19,8	18,8	17,5	16,0	14,1	12,4	9,9			
100-200/110	11	219	●	80,2	25,3		24,6	24,1	23,3	22,2	20,8	19,1	17,5	15,1	12,4		
100-250/75	7,5	214	○	79,6	23,2		23,0	22,4	21,4	20,1	18,5	16,6	14,9				
100-250/110A	11	227	○	79,8	26,6		26,4	26,0	25,2	24,0	22,3	20,4	18,7				
100-250/110	11	241	○	80,4	30,4		30,0	29,6	28,9	27,7	26,2	24,2	22,6				
100-250/150	15	259	●	81,6	34,7		34,5	34,3	33,8	32,8	31,4	29,6	27,9	25,5			
100-315/185	18,5	274	○	70,5	36,8		37,0	36,6	35,6	34,2	32,2	29,7	27,5	24,1	19,8		
100-315/220	22	290	○	71,2	42,0		42,2	41,9	41,1	39,7	37,8	35,5	33,5	30,4	26,7	21,9	
100-315/300	30	315	●	72,8	50,7		50,8	50,7	50,1	49,0	47,3	45,2	43,3	40,5	37,3	33,5	27,8

Hydraulic performances in compliance with ISO 9906:2012 - Grade 3B (ex ISO 9906:1999 - Annex A)

LNE-80-100_4p60-en_a_th

(1) ● = Full impeller diameter - ○ = Trimmed impeller diameter (2) Hydraulic efficiency of pump.

e-LNE 125, 150, 200, 250 SERIES

HYDRAULIC PERFORMANCE TABLE AT 60 Hz, 4 POLES

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø	○ ●	ηp %	l/s	0	6	13	21	28	35	42	49	57	64	71	78	86
					m³/h	0	22	48	74	100	126	152	178	204	230	256	282	310
					H = TOTAL HEAD METRES COLUMN OF WATER													
125-160/40	4	156	○	75,3	10,9	10,8	10,8	10,3	9,3	8,0	6,1							
125-160/55	5,5	176	○	78,1	14,2		14,0	13,5	12,7	11,3	9,4	6,6						
125-160/75	7,5	190	●	80,2	16,6		16,2	15,8	15,0	13,9	12,2	9,9						
125-200/75	7,5	197	○	79,5	17,2		17,2	17,0	16,4	15,1	13,1	10,6	7,7					
125-200/110	11	222	○	81,2	23,2		23,1	22,8	22,3	21,2	19,7	17,5	14,7	11,2				
125-200/150	15	229	●	81,7	24,8		24,7	24,5	23,9	22,9	21,4	19,3	16,6	13,3				
125-250/150	15	245	○	79,6	28,7		28,7	28,3	27,5	26,3	24,6	22,4	19,8	16,8	13,5			
125-250/185	18,5	259	●	80,4	32,0		31,9	31,5	30,8	29,7	28,0	25,8	23,2	20,3	17,1			
125-250/220	22	260	○	76,5	33,6		33,4	32,7	31,9	30,8	29,5	28,0	26,2	24,0	21,3	18,0		
125-250/300	30	284	●	79,6	41,3		40,9	40,3	39,6	38,7	37,5	36,1	34,4	32,4	30,1	27,3	23,7	

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø	○ ●	ηp %	l/s	0	12,8	23,3	33,9	44,4	55,0	65,6	76,1	86,7	97,2	107,8	118,3	129,7
					m³/h	0	46	84	122	160	198	236	274	312	350	388	426	467
					H = TOTAL HEAD METRES COLUMN OF WATER													
150-200/110	11	190	○	76,7	16,4	16,4	16,0	15,4	14,5	13,4	12,0	10,3	8,0					
150-200/150	15	210	○	79,4	20,1		19,6	19,1	18,3	17,4	16,1	14,5	12,5	9,8				
150-200/185	18,5	225	●	81,0	22,7		22,3	22,0	21,5	20,8	19,8	18,4	16,6	14,3				
150-250/220	22	239	○	80,4	26,8		26,6	26,2	25,5	24,5	23,0	21,0	18,5	15,4				
150-250/300	30	259	●	83,4	32,1		31,7	31,3	30,7	29,8	28,5	26,8	24,7	21,9	18,6			
150-315/370	37	280	○	79,4	40,1		39,9	39,7	39,4	38,8	38,1	37,2	36,1	34,8	33,2	31,3	28,9	
150-315/450	45	296	○	80,9	45,6			45,5	45,2	44,8	44,2	43,4	42,4	41,2	39,8	38,1	36,0	
150-315/550	55	315	●	82,5	51,8			51,9	51,7	51,4	50,9	50,3	49,4	48,4	47,1	45,6	43,6	

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø	○ ●	ηp %	l/s	0	21,4	31,9	42,5	53,1	63,6	74,2	84,7	95,3	105,8	116,4	126,9	173,9
					m³/h	0	77	115	153	191	229	267	305	343	381	419	457	626
					H = TOTAL HEAD METRES COLUMN OF WATER													
200-250/220	22	227	○	75,1	21,9		21,9	21,9	21,7	21,3	20,6	19,7	18,4	16,9	15,1	13,0	10,7	
200-250/300	30	248	○	79,2	26,9		26,6	26,5	26,3	26,0	25,5	24,9	24,1	23,0	21,6	19,9	17,8	
200-250/370	37	259	○	79,8	29,9		29,6	29,4	29,1	28,8	28,4	27,9	27,1	26,2	25,0	23,4	21,5	
200-250/450	45	276	○	80,5	34,7		34,2	33,9	33,5	33,2	32,8	32,3	31,7	30,9	29,9	28,6	26,9	
200-250/550	55	282	●	81,0	36,4		35,9	35,5	35,1	34,7	34,3	33,8	33,3	32,6	31,6	30,4	28,8	
200-315/450	45	272	○	77,7	33,6			33,7	33,4	32,9	32,3	31,6	30,6	29,5	28,2	26,5	24,3	
200-315/550	55	291	○	79,7	39,1			39,2	39,0	38,6	38,1	37,5	36,7	35,7	34,5	33,0	31,1	
200-315/750	75	324	○	82,2	49,6			49,4	49,1	48,8	48,4	47,9	47,3	46,6	45,6	44,4	42,7	
200-315/900	90	334	●	82,5	52,9			52,8	52,4	52,1	51,7	51,2	50,7	50,0	49,1	48,0	46,4	

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø mm	○ ● (1)	ηp % (2)	l/s	0	37,8	48,3	58,9	69,4	80,0	90,6	101,1	111,7	122,2	132,8	143,3	277,8
					m³/h	0	136	174	212	250	288	326	364	402	440	478	516	1000
					H = TOTAL HEAD METRES COLUMN OF WATER													
250-315/550	55	268	○	77,5	30,3					29,9	29,7	29,4	28,8	28,2	27,6	27,1	26,6	26,2
250-315/750	75	300	○	81,1	38,6					38,1	37,9	37,6	37,2	36,8	36,4	36,0	35,7	35,3
250-315/900	90	314	●	82,6	43,1					42,4	42,0	41,6	41,2	40,9	40,7	40,5	40,3	40,0

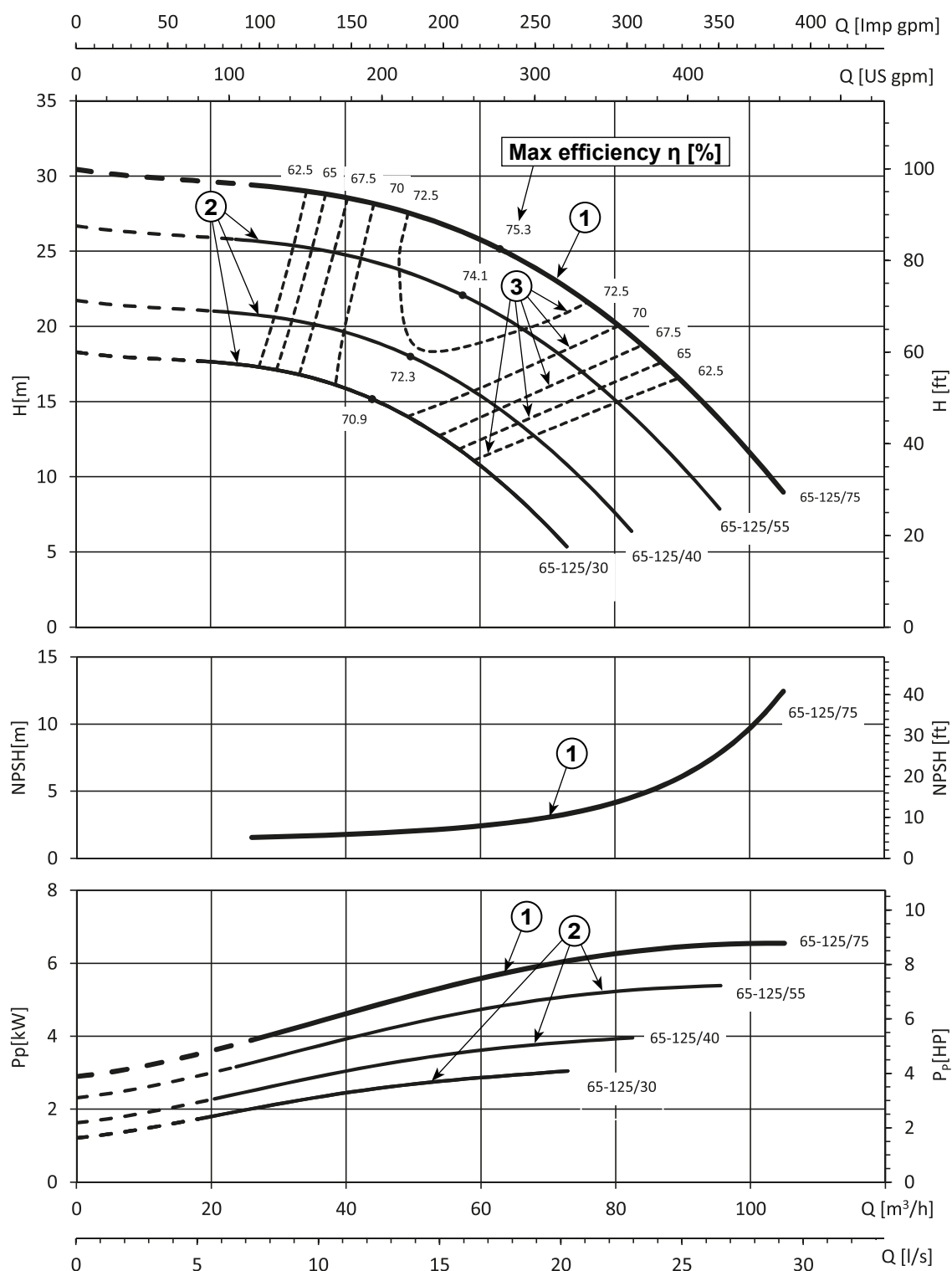
Hydraulic performances in compliance with ISO 9906:2012 - Grade 3B (ex ISO 9906:1999 - Annex A)

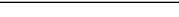
LNE-125-250_4p60-en_a_th

(1) ● = Full impeller diameter - ○ = Trimmed impeller diameter (2) Hydraulic efficiency of pump.

e-LNE SERIES

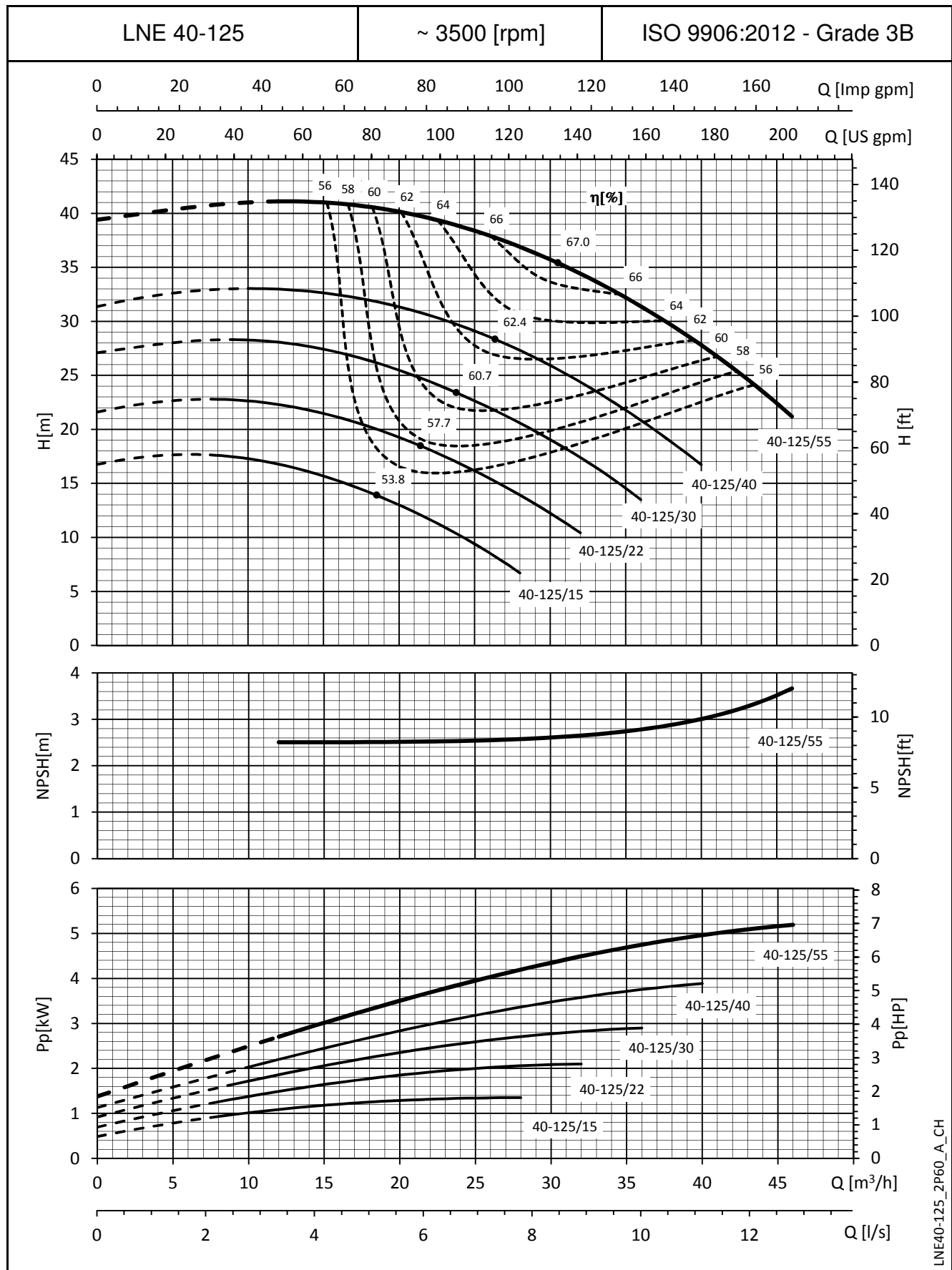
IDENTIFICATION OF GRAPH



REF	TYPE	DESCRIPTION
①		Full Diameter impeller operating range
②		Trimmed diameter impeller operating range
③		ISO efficiency curves

e-LNE SERIES

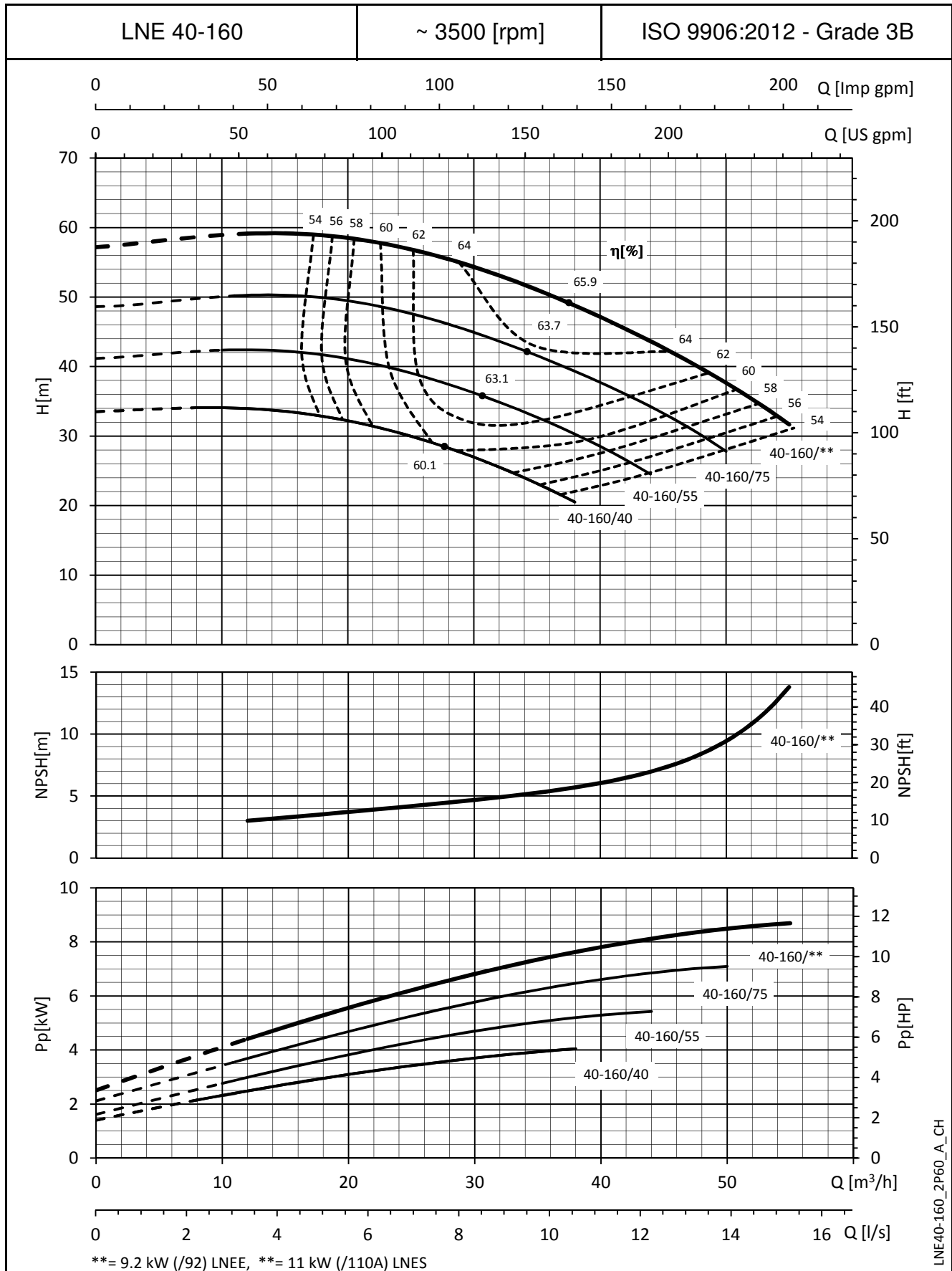
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

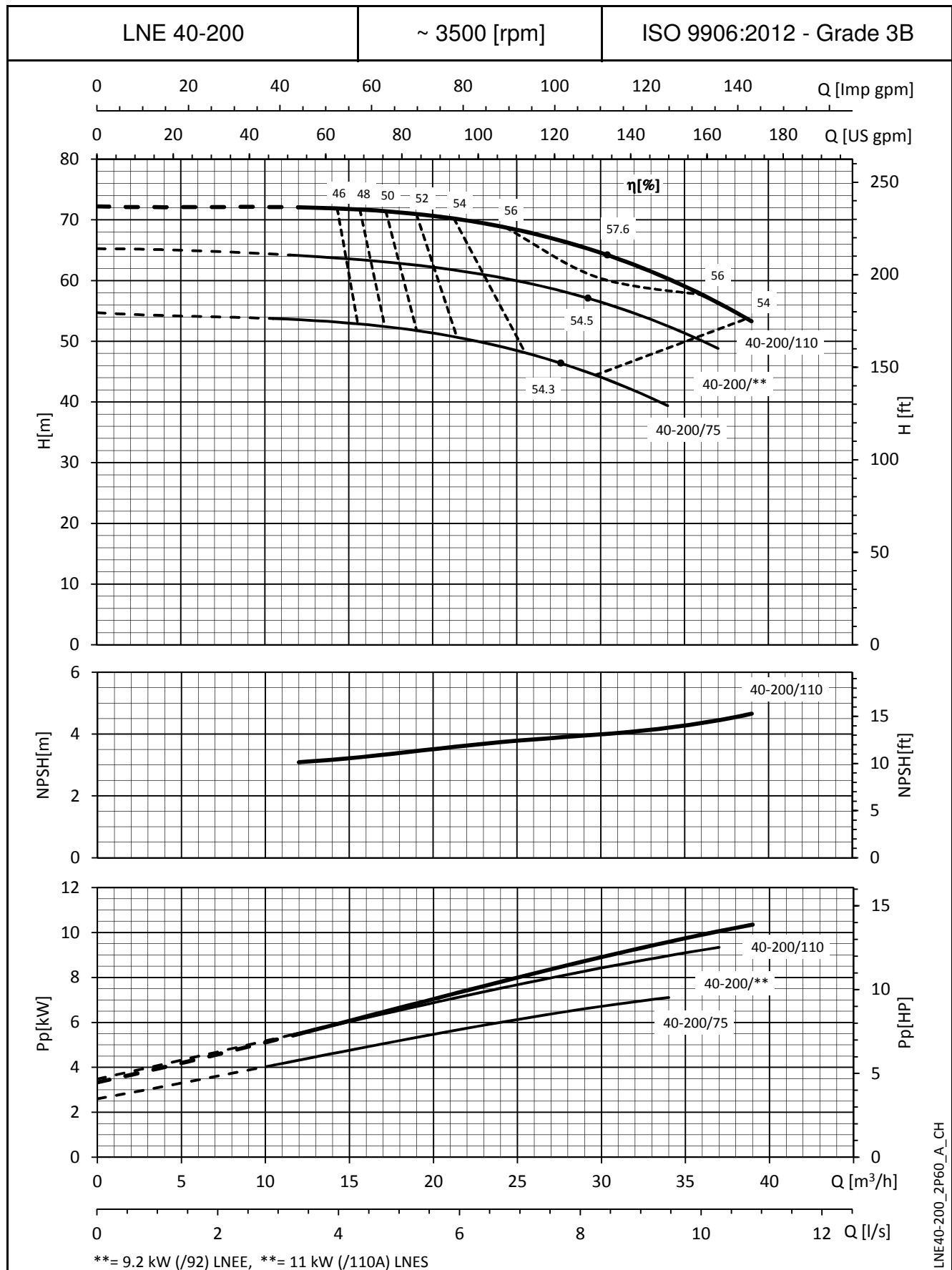
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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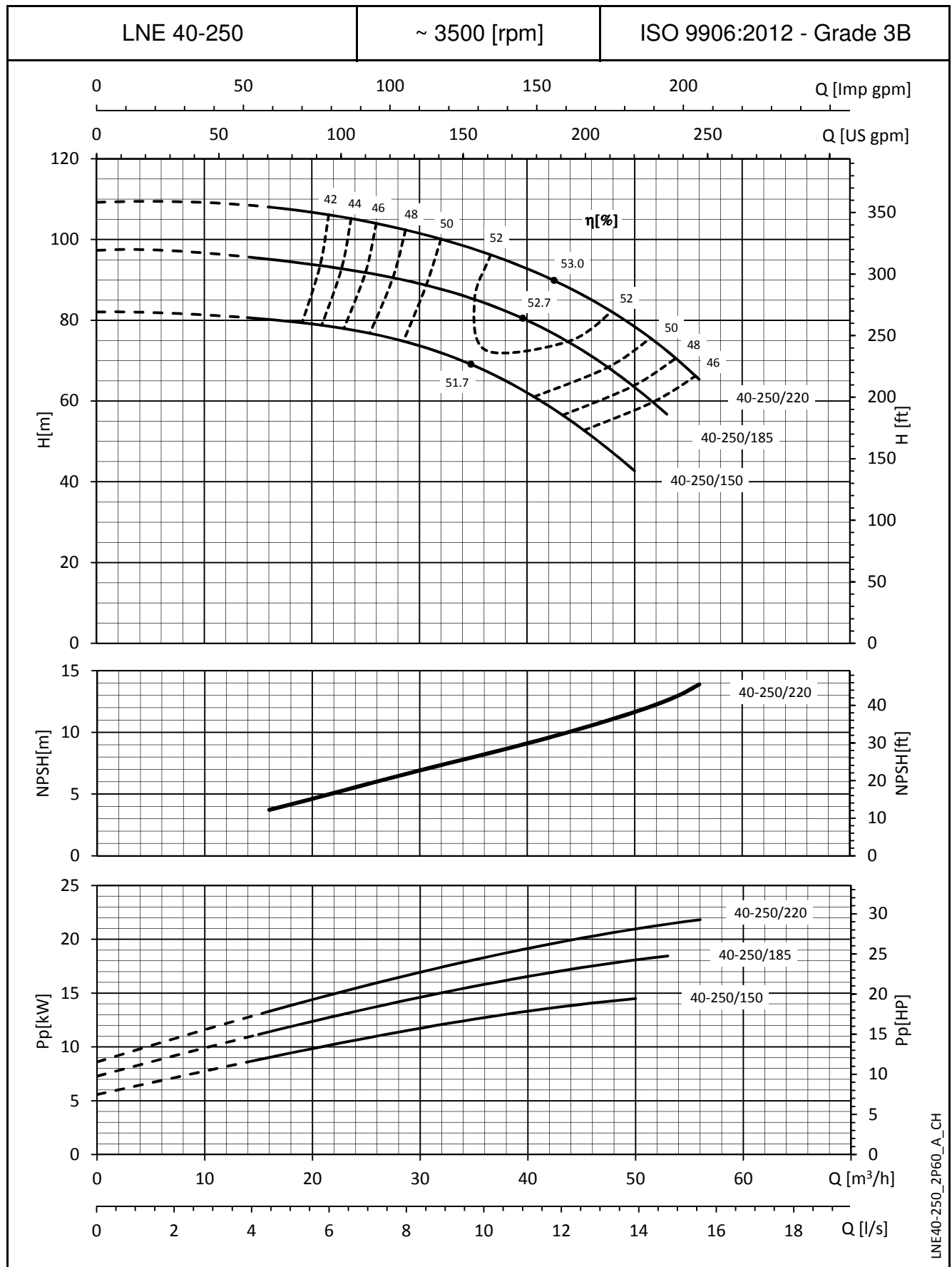
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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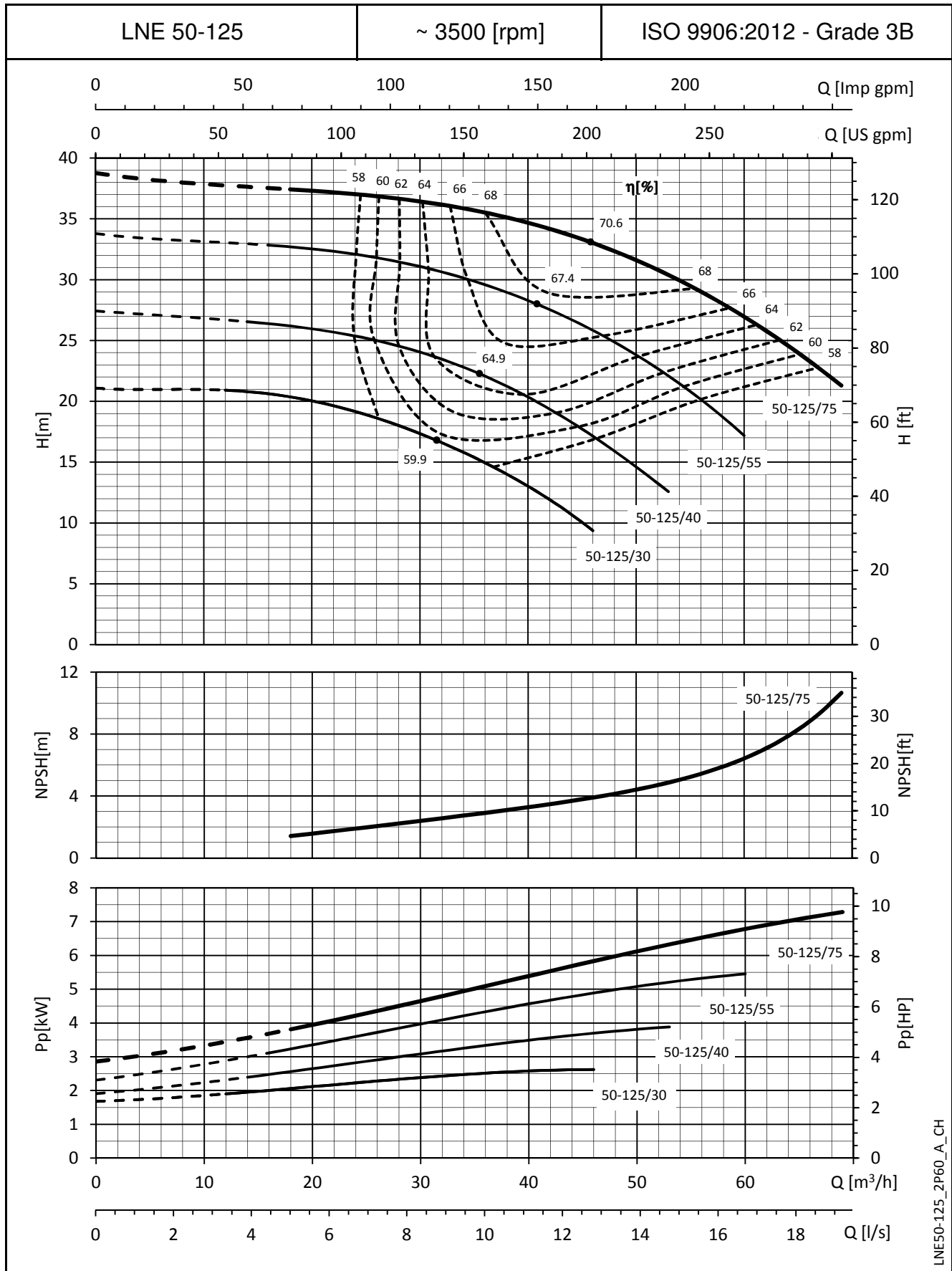
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNE SERIES

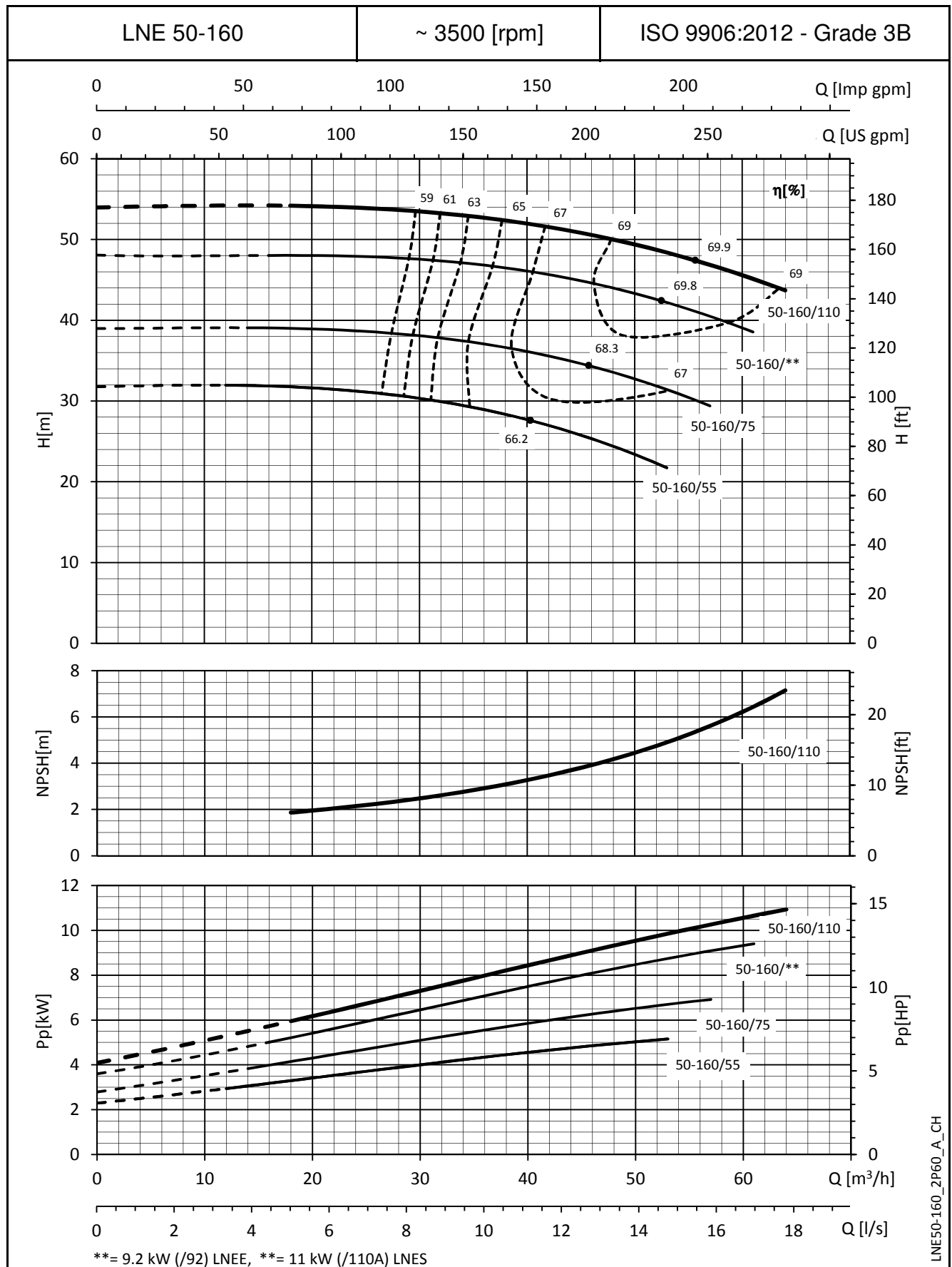
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNE SERIES

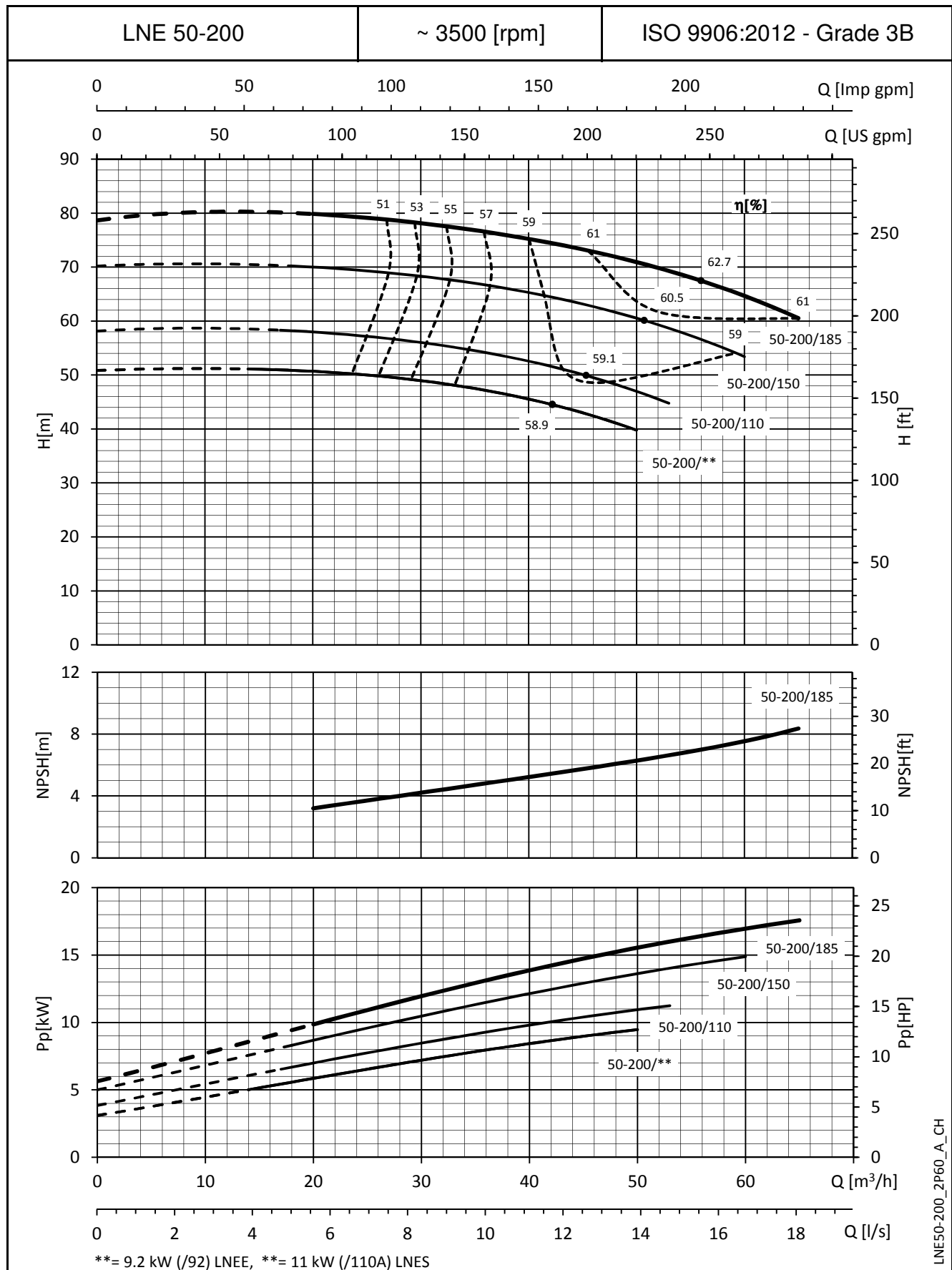
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNE SERIES

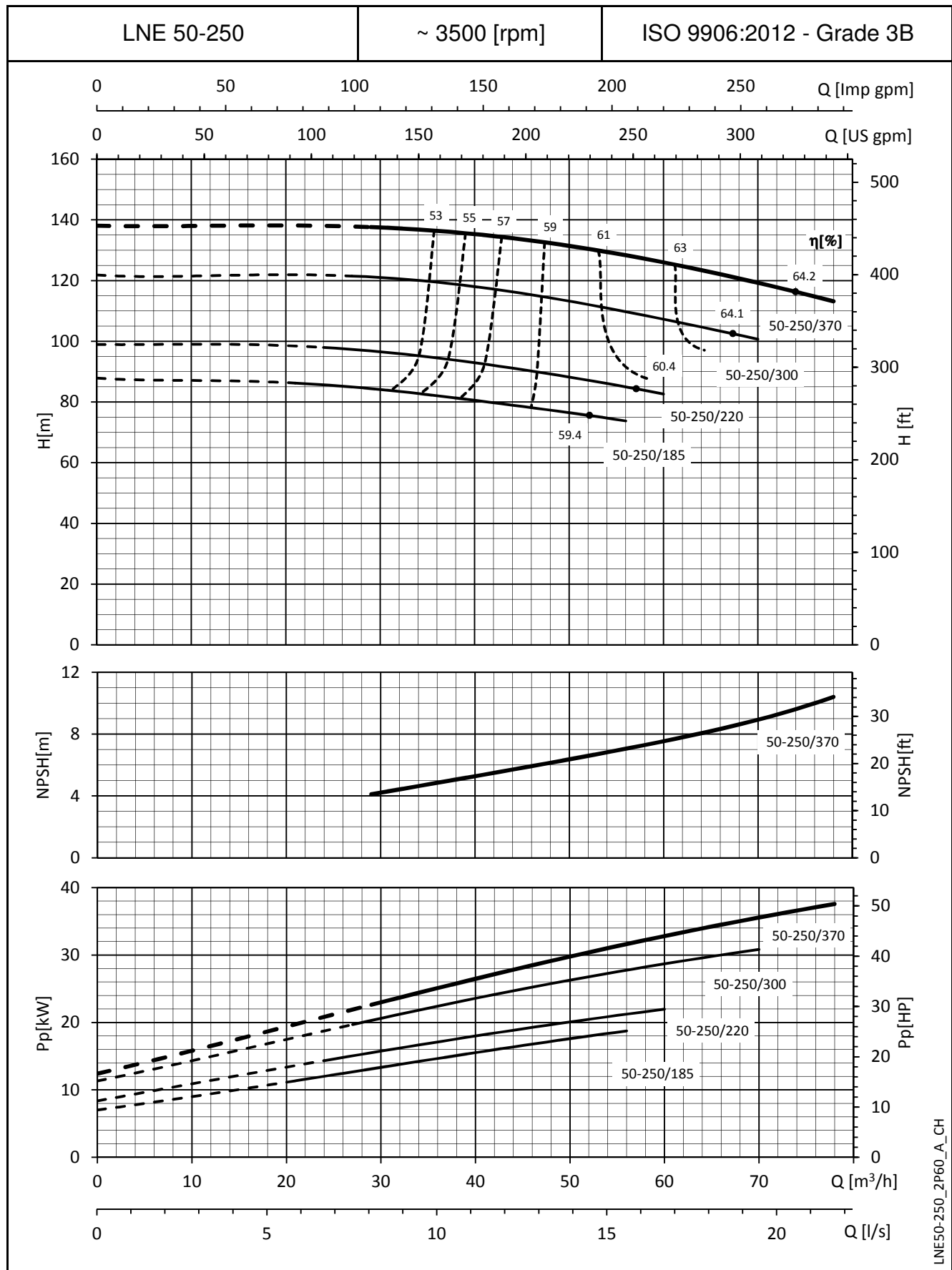
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNE SERIES

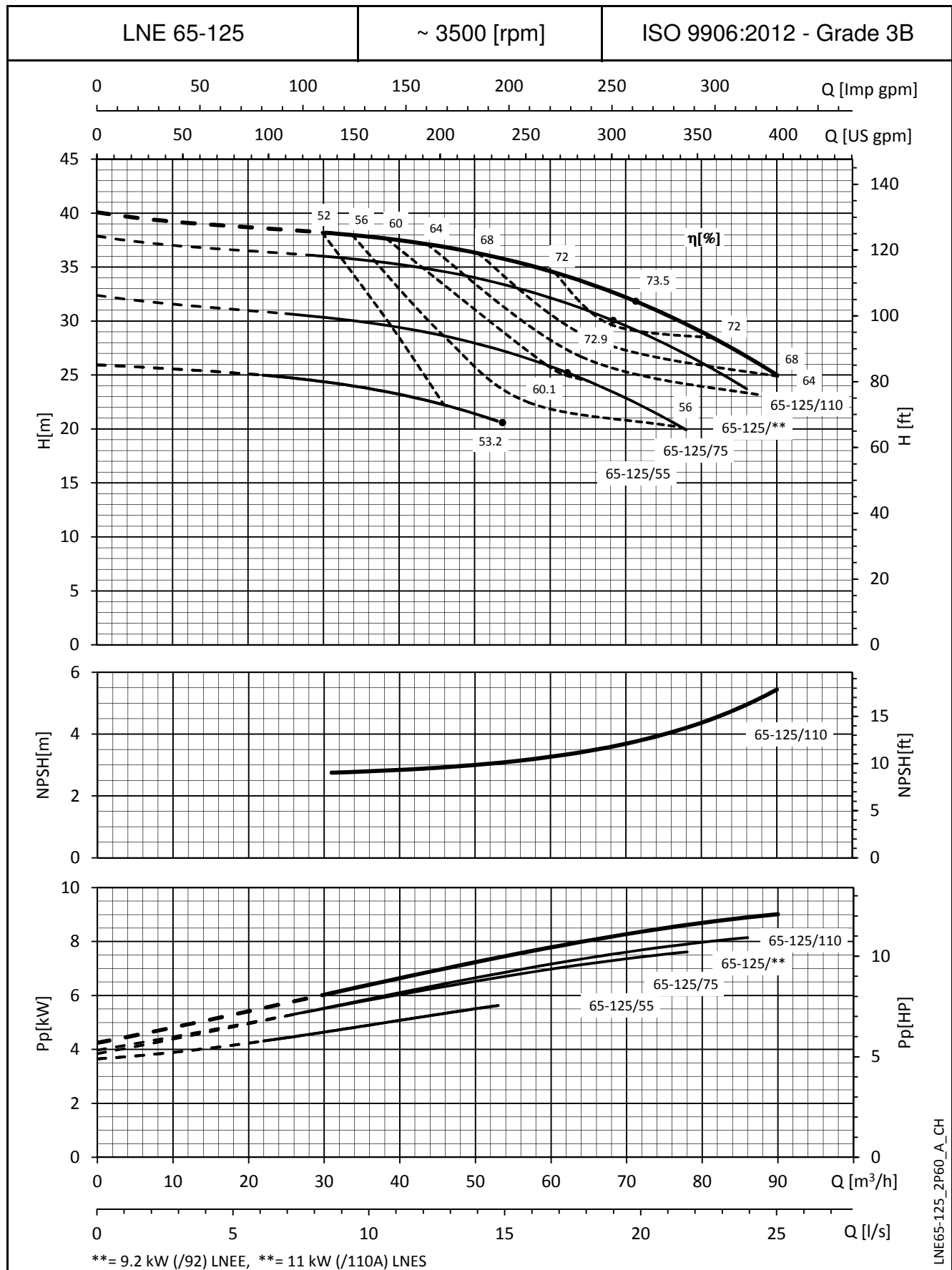
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNE SERIES

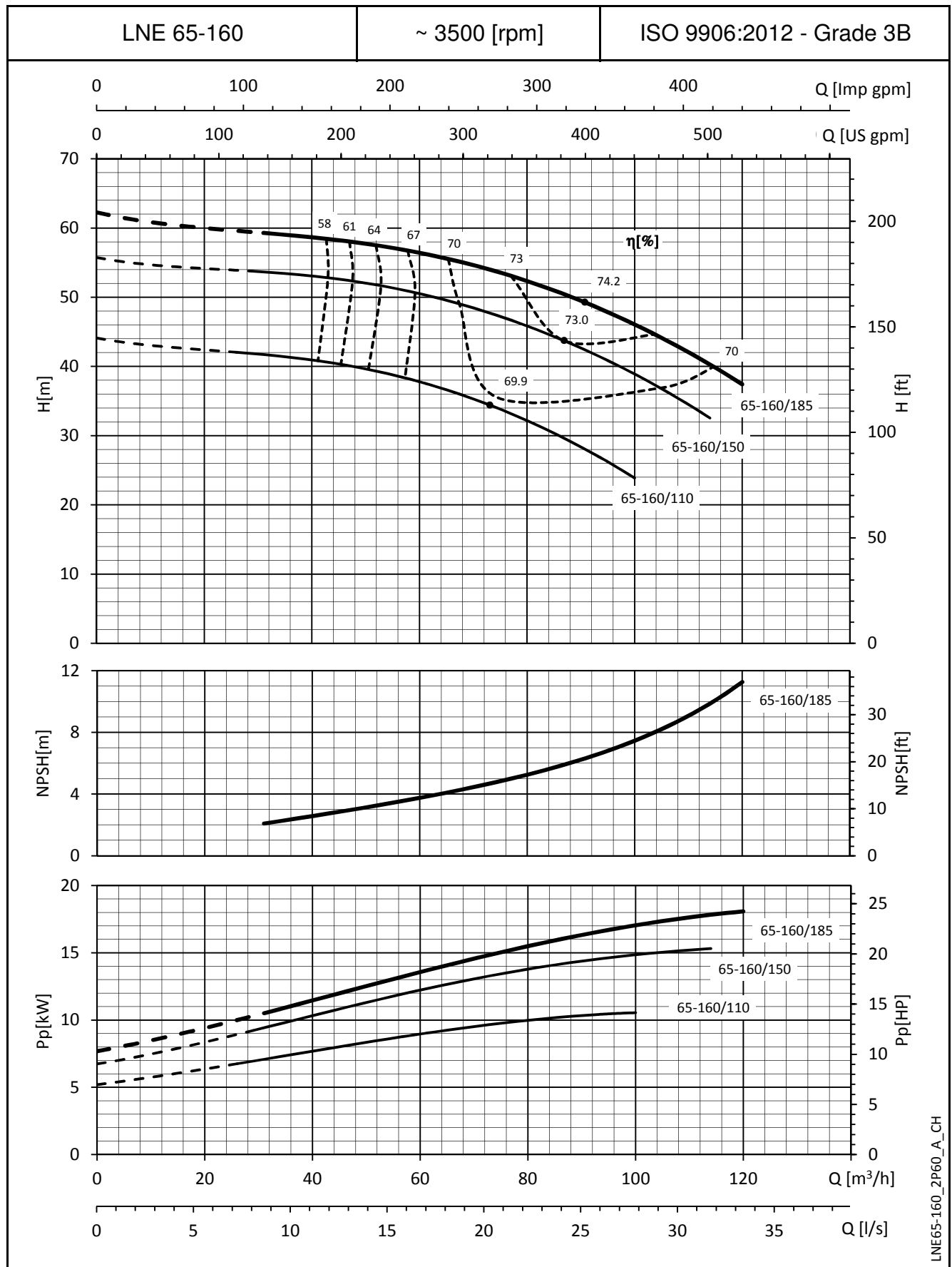
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNE SERIES

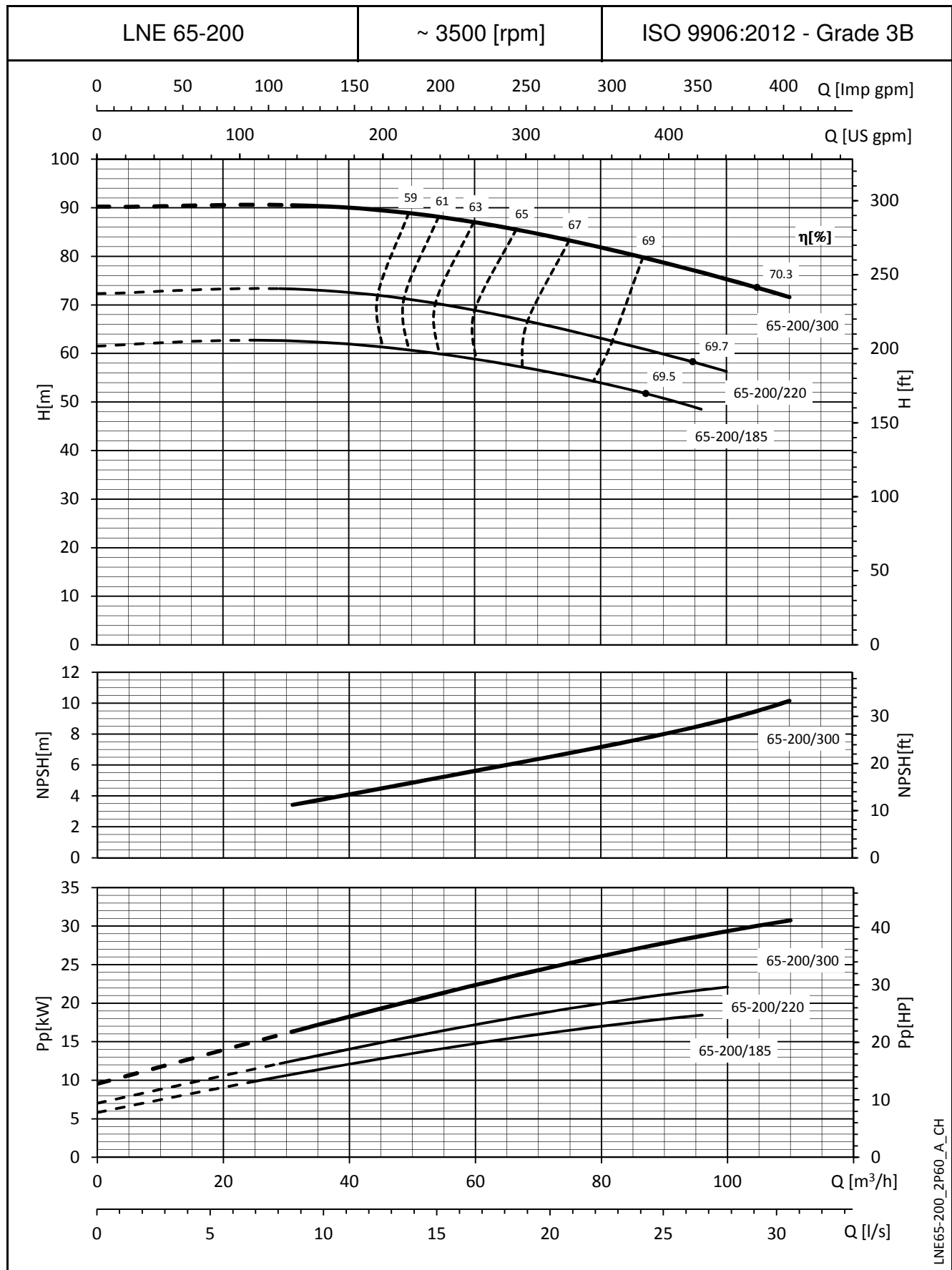
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNE SERIES

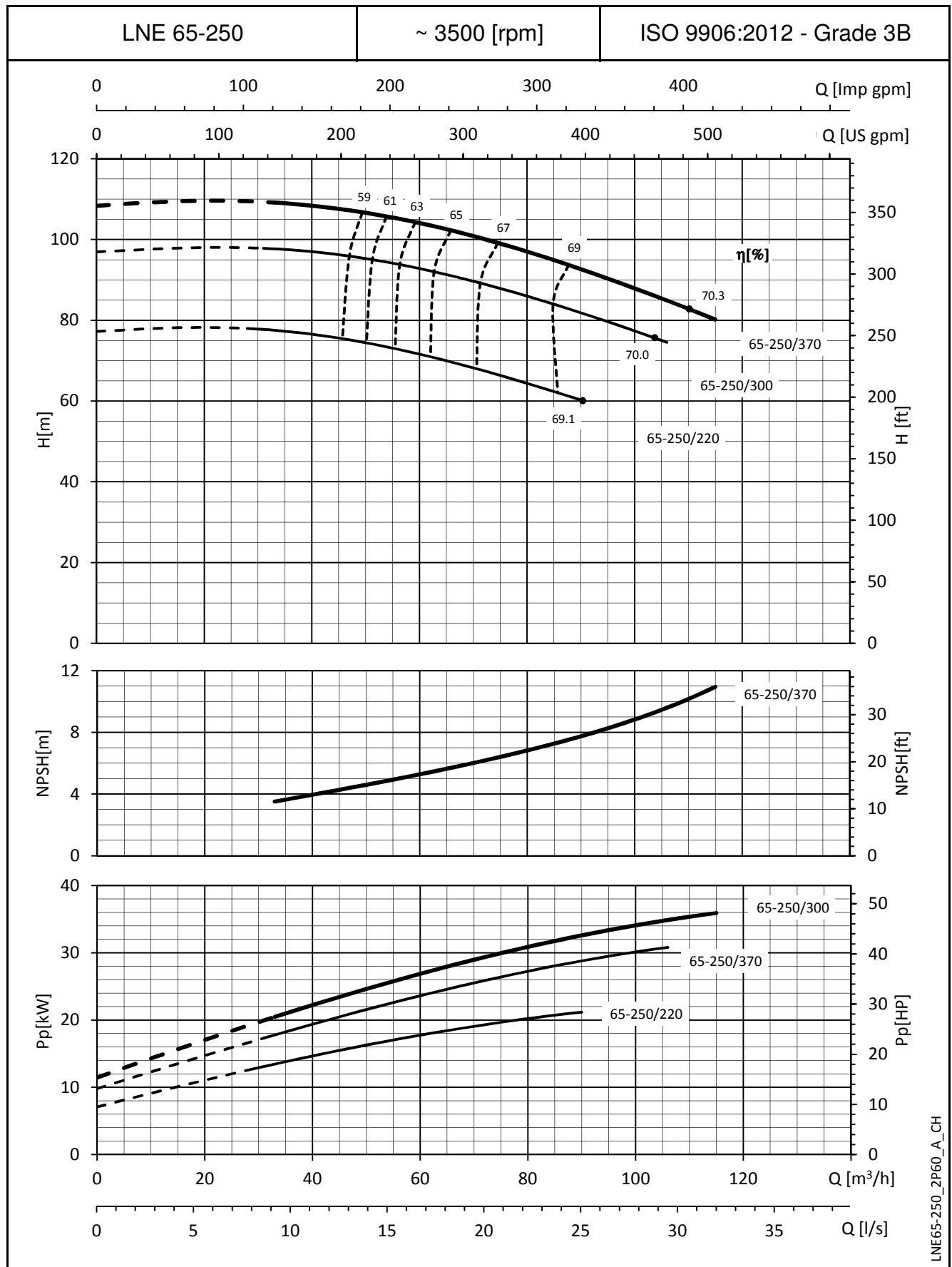
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNE SERIES

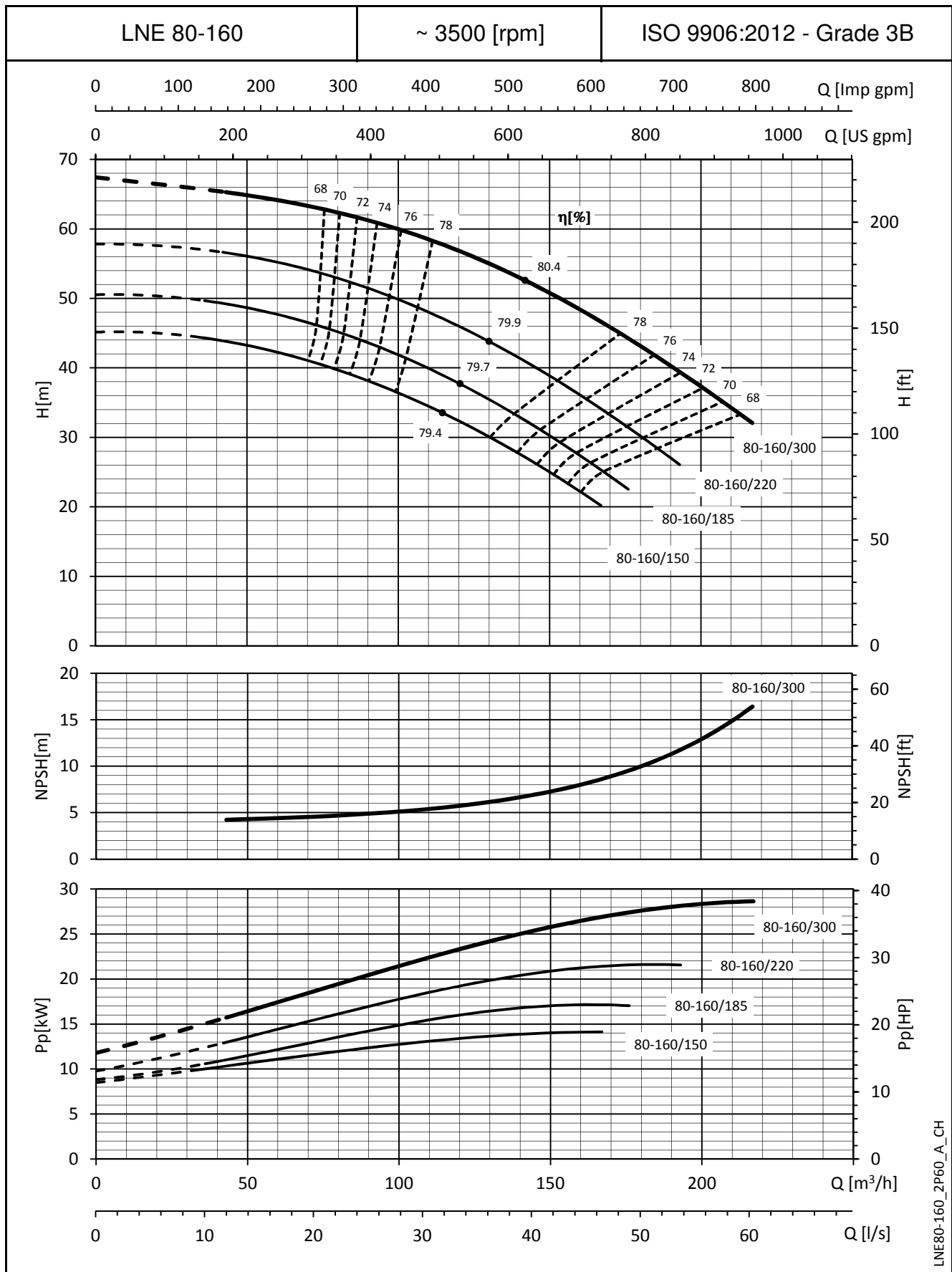
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNE SERIES

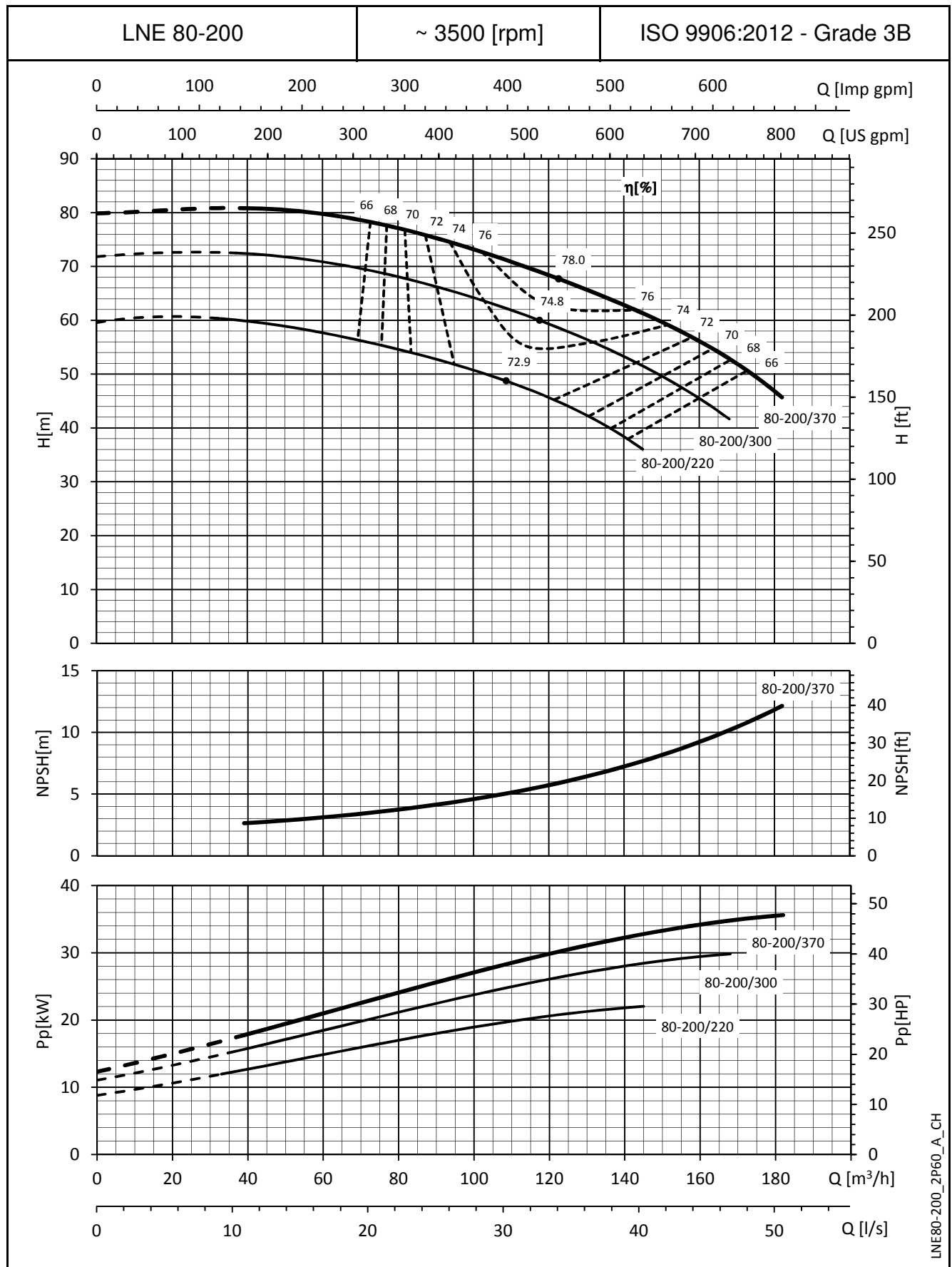
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNE SERIES

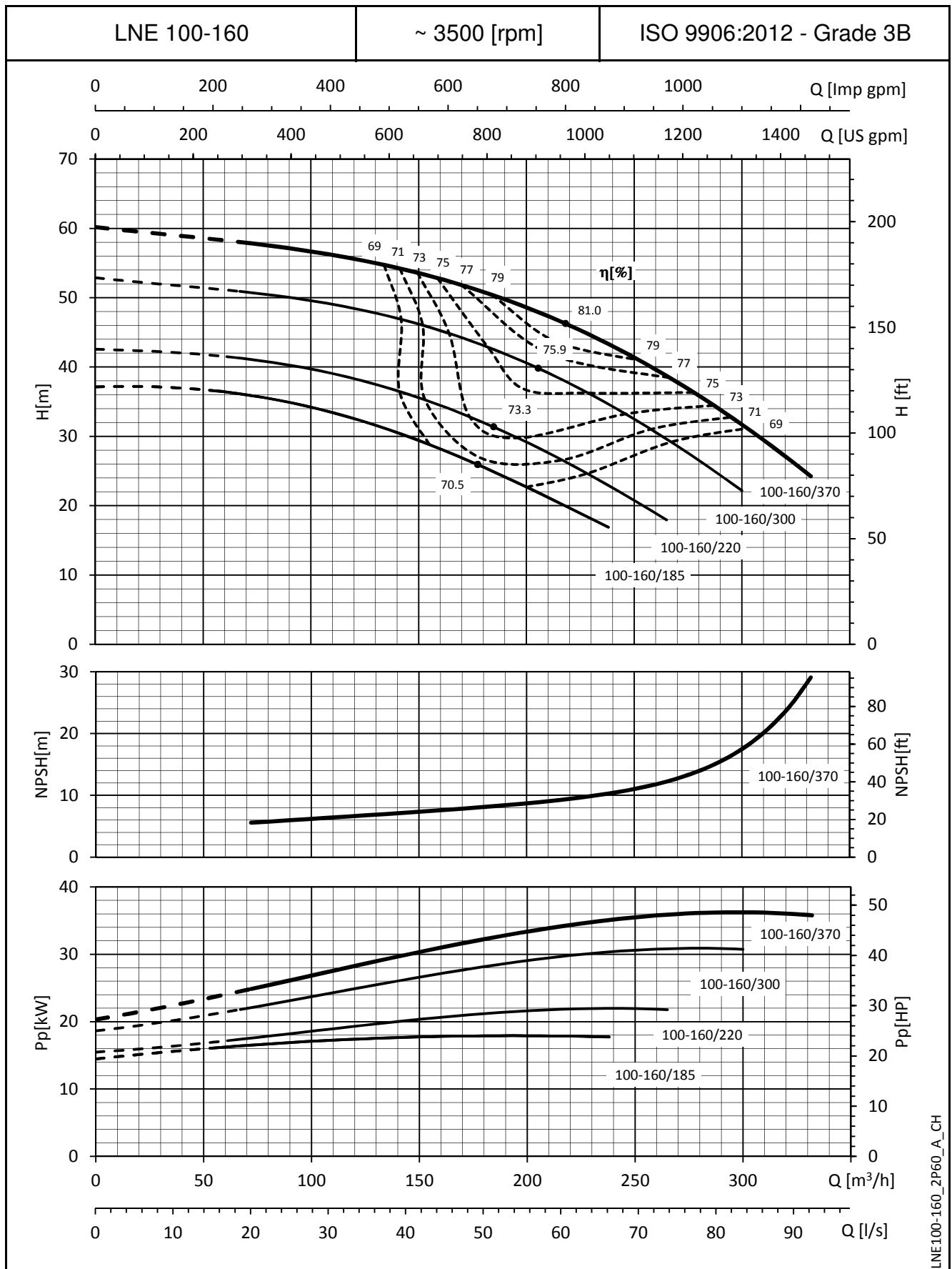
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

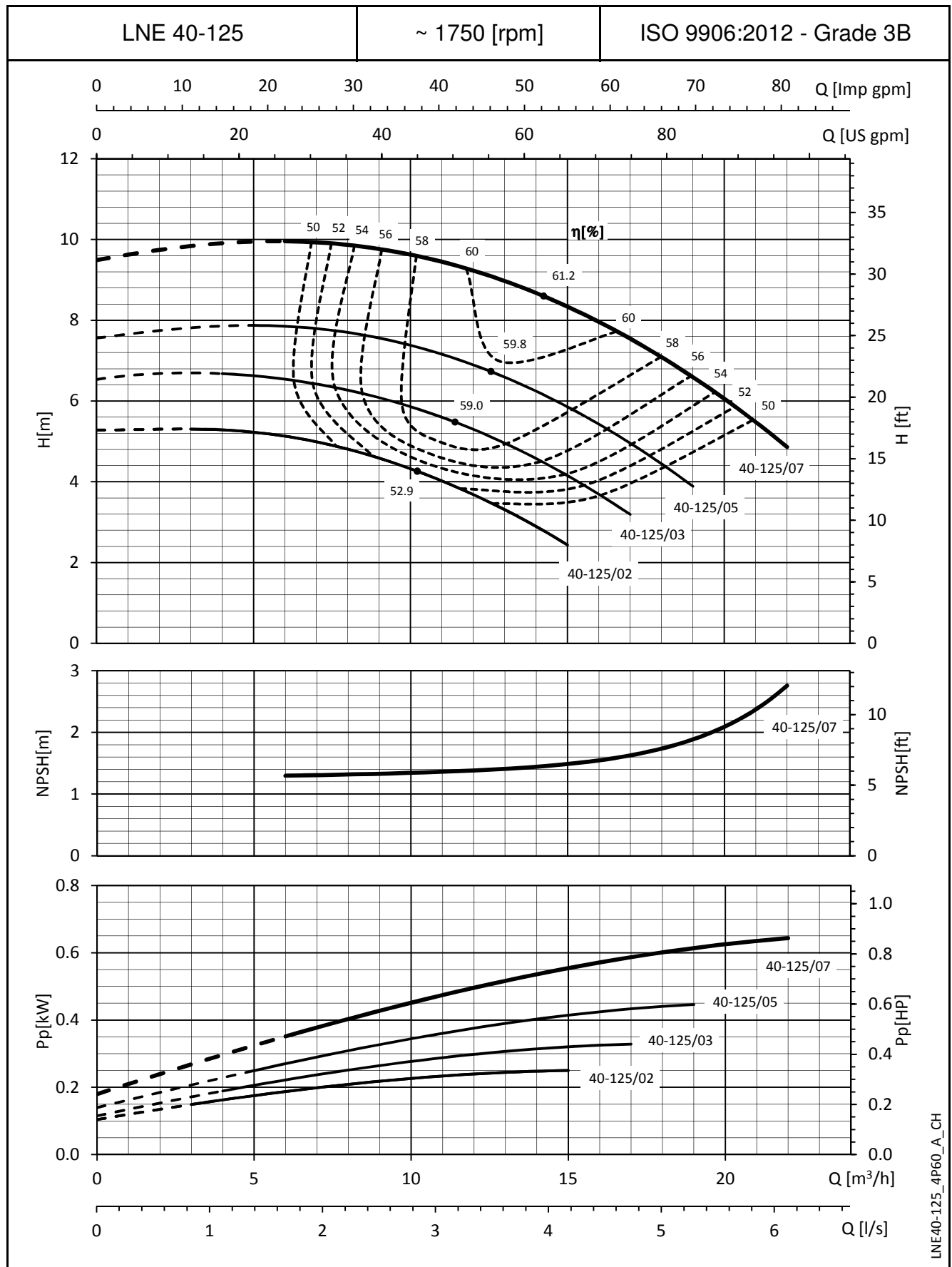
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

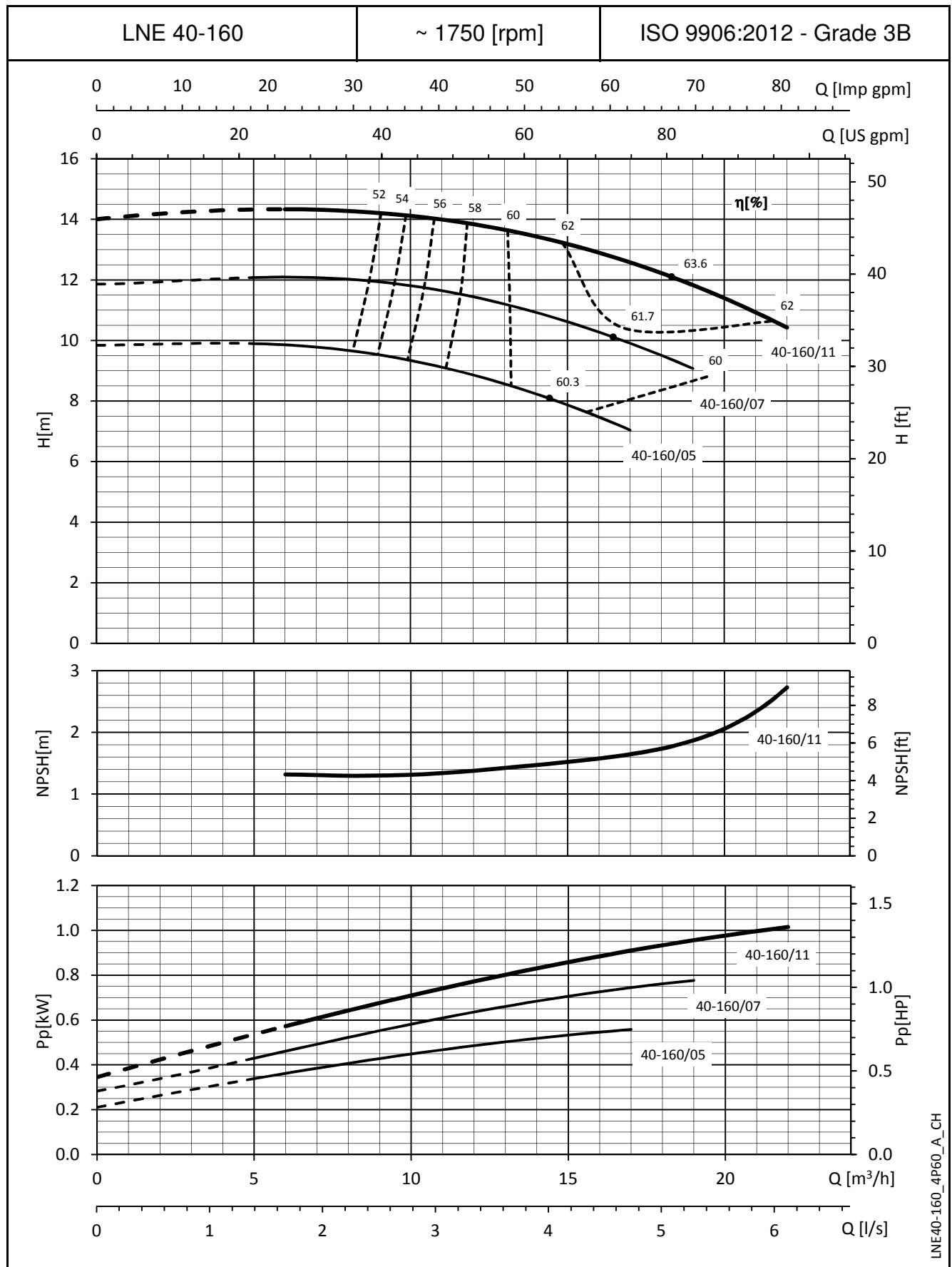
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

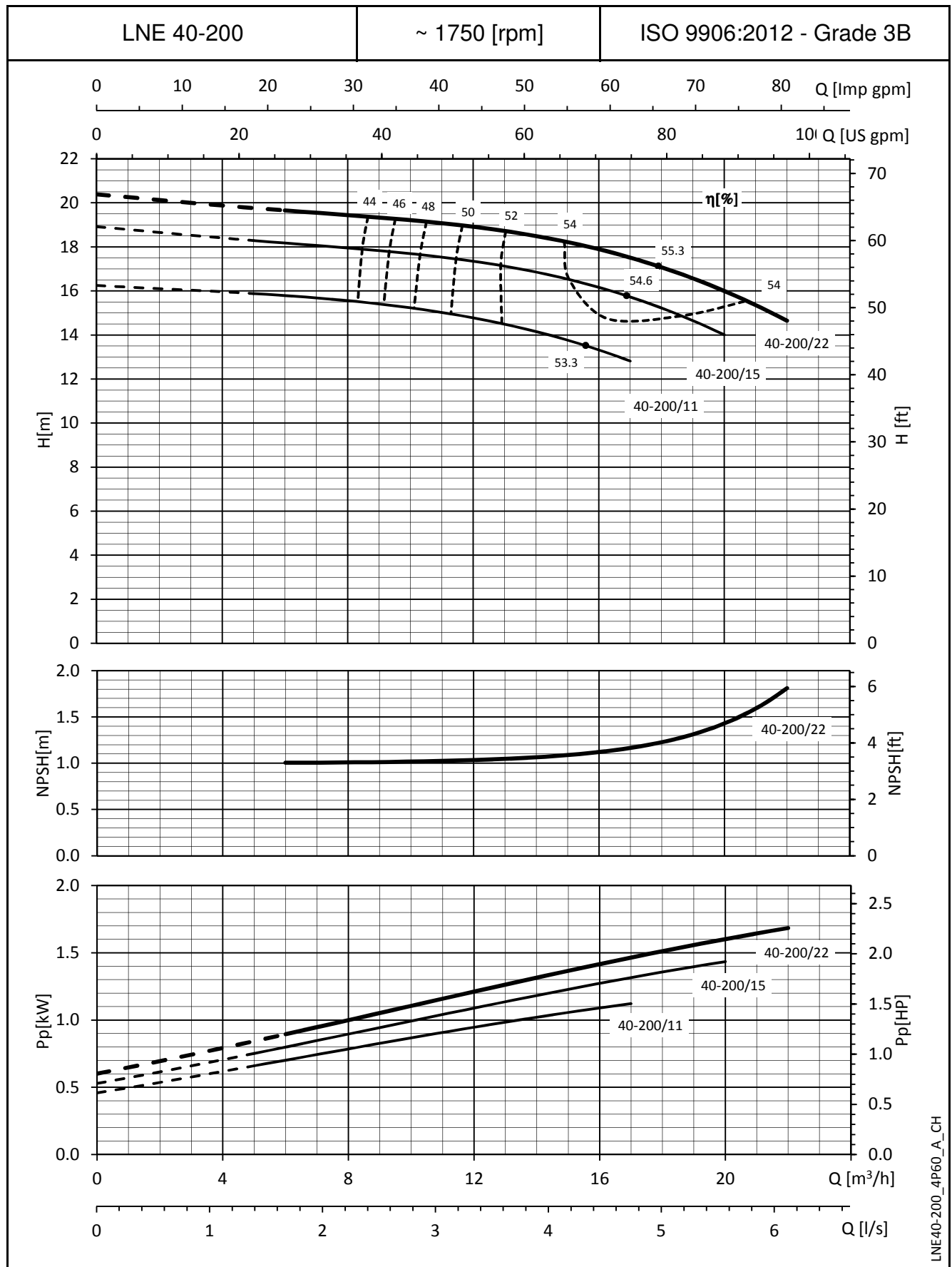
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

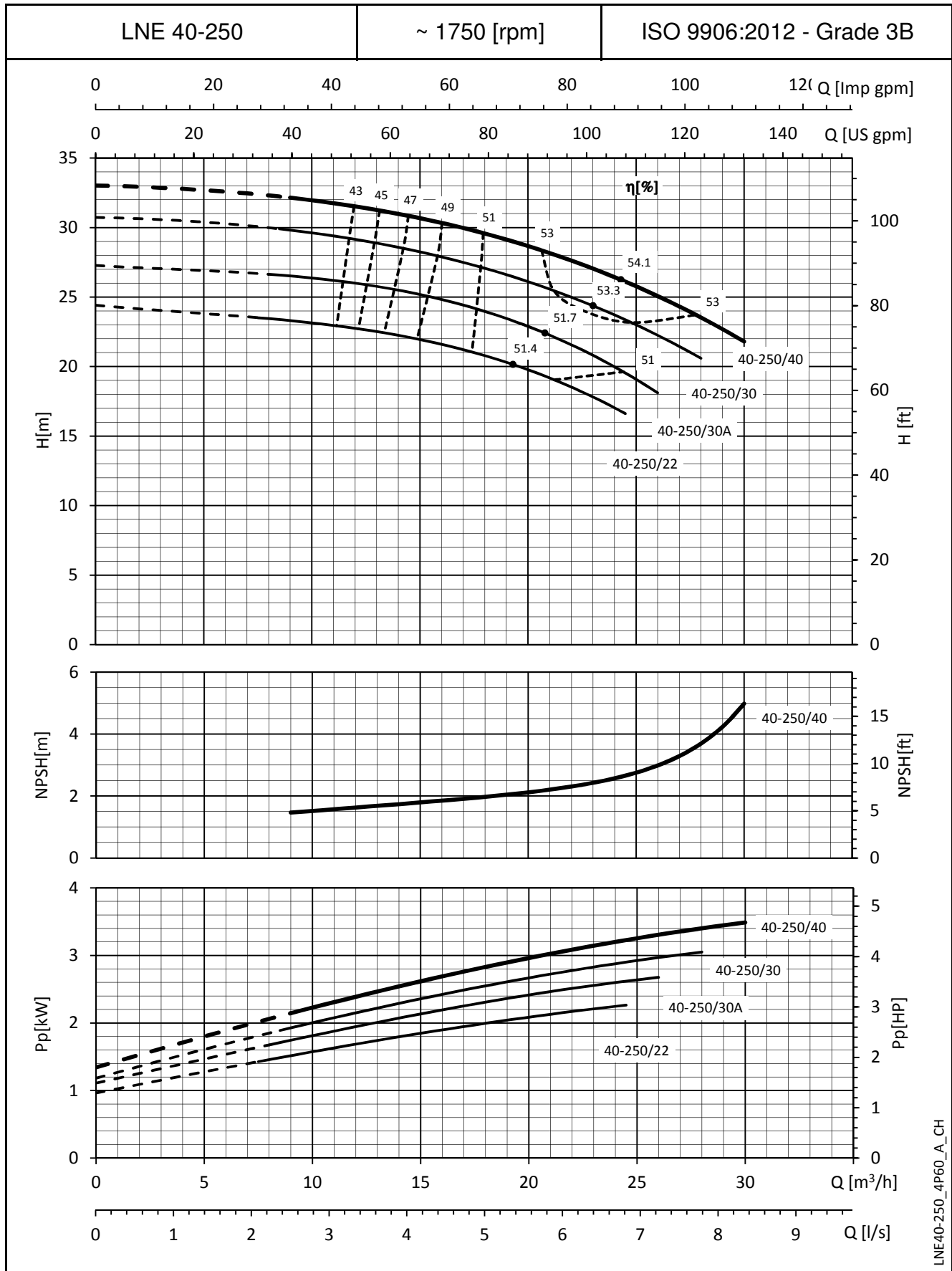
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

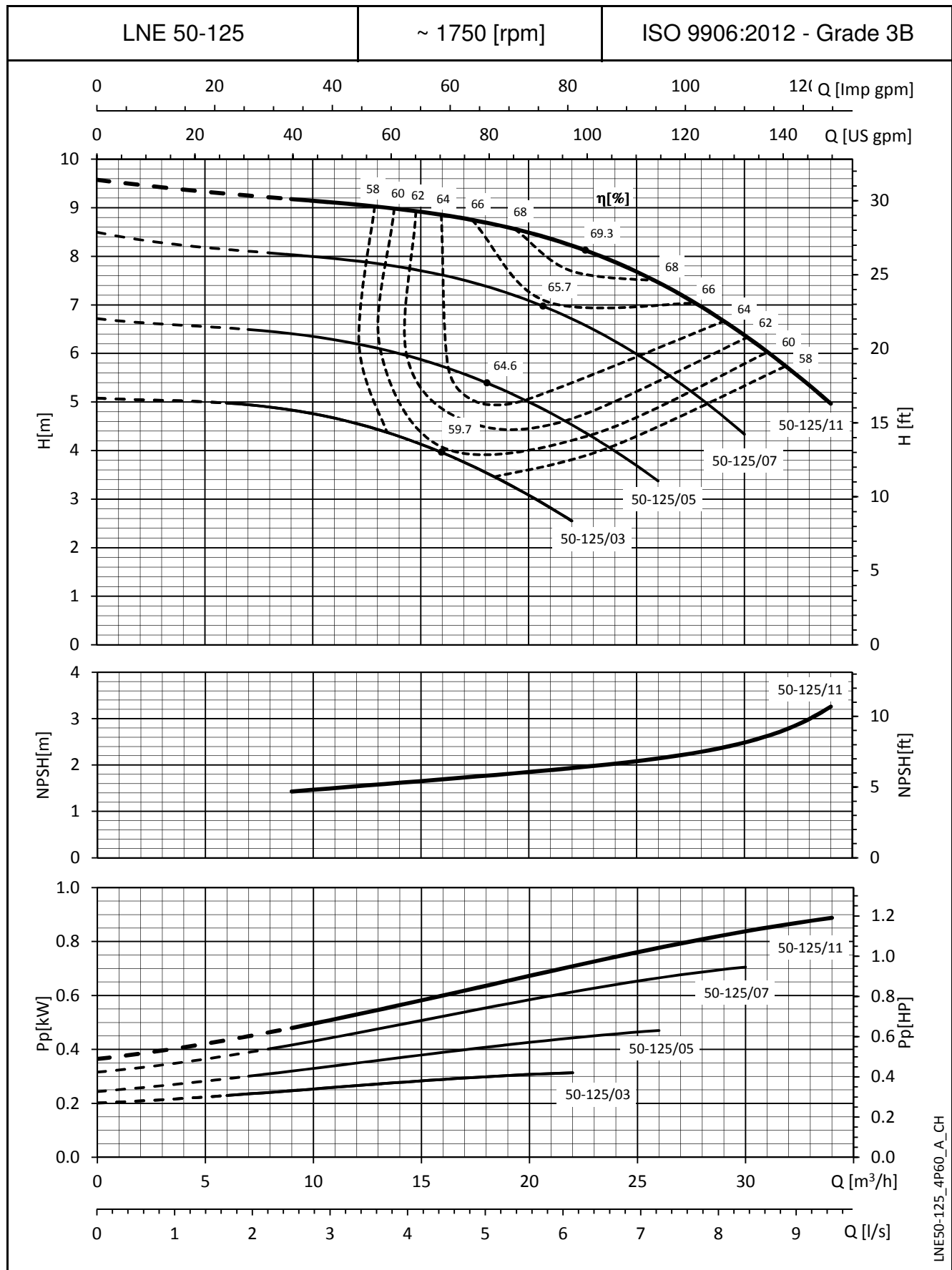
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

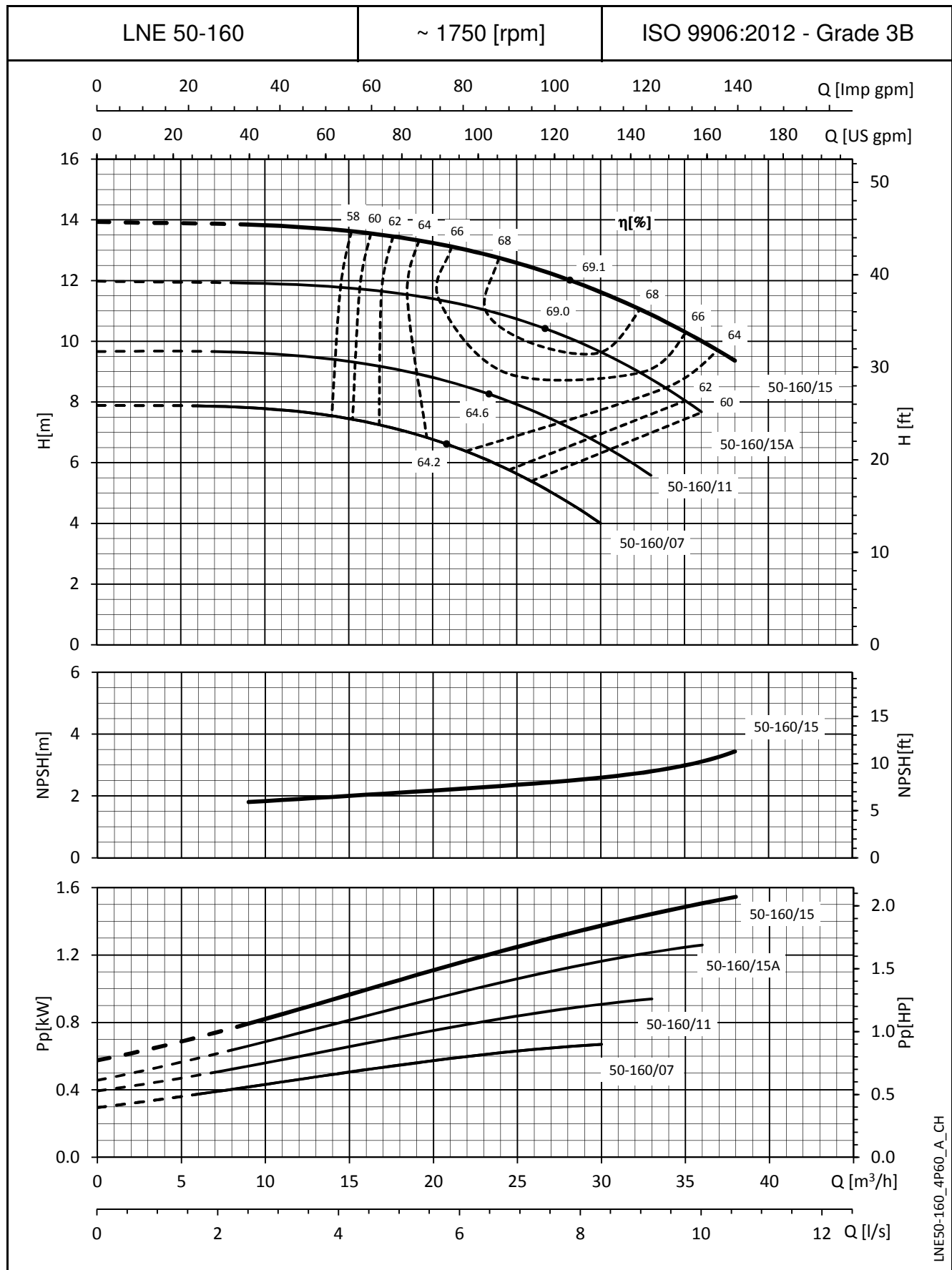
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

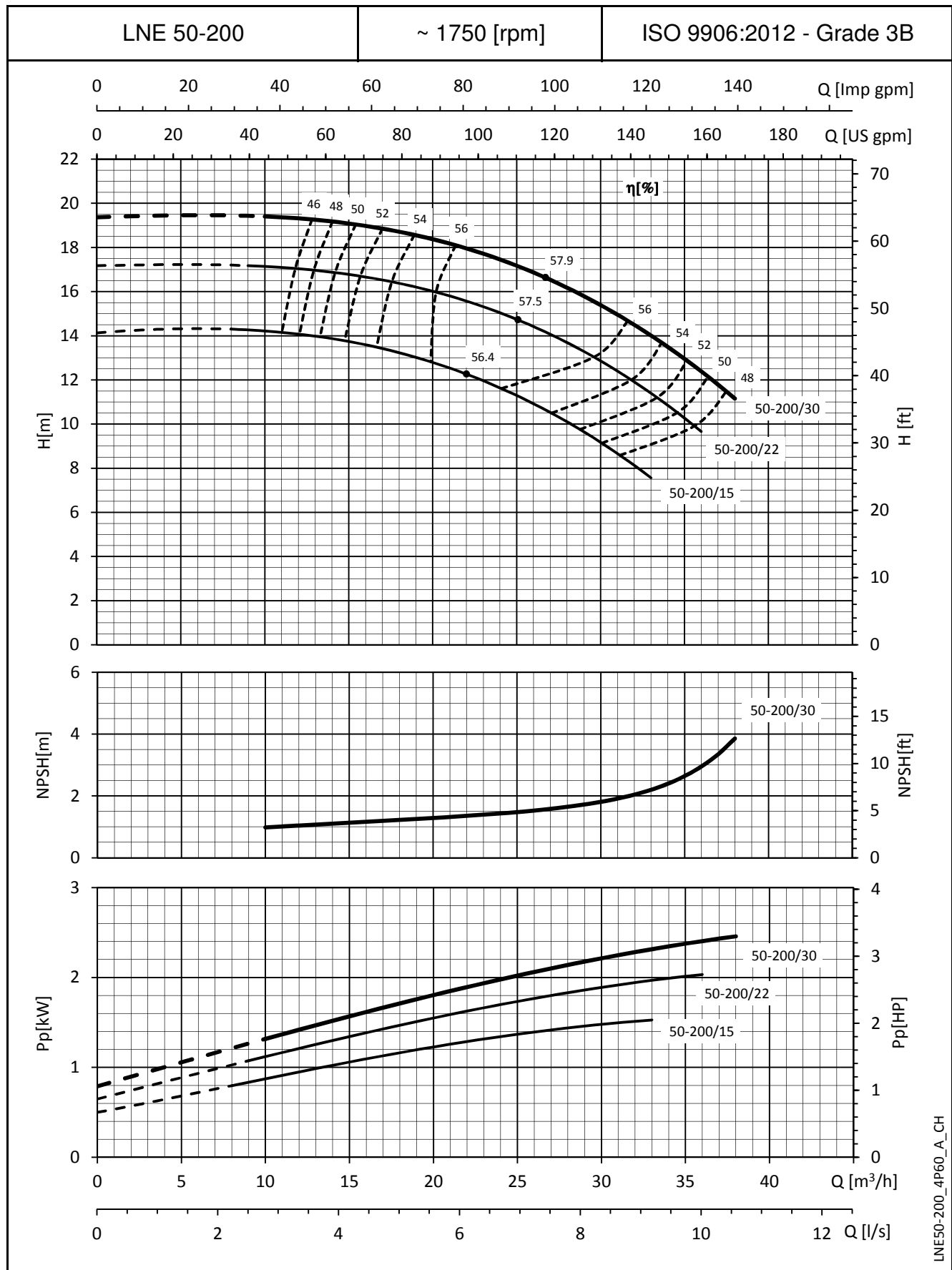
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

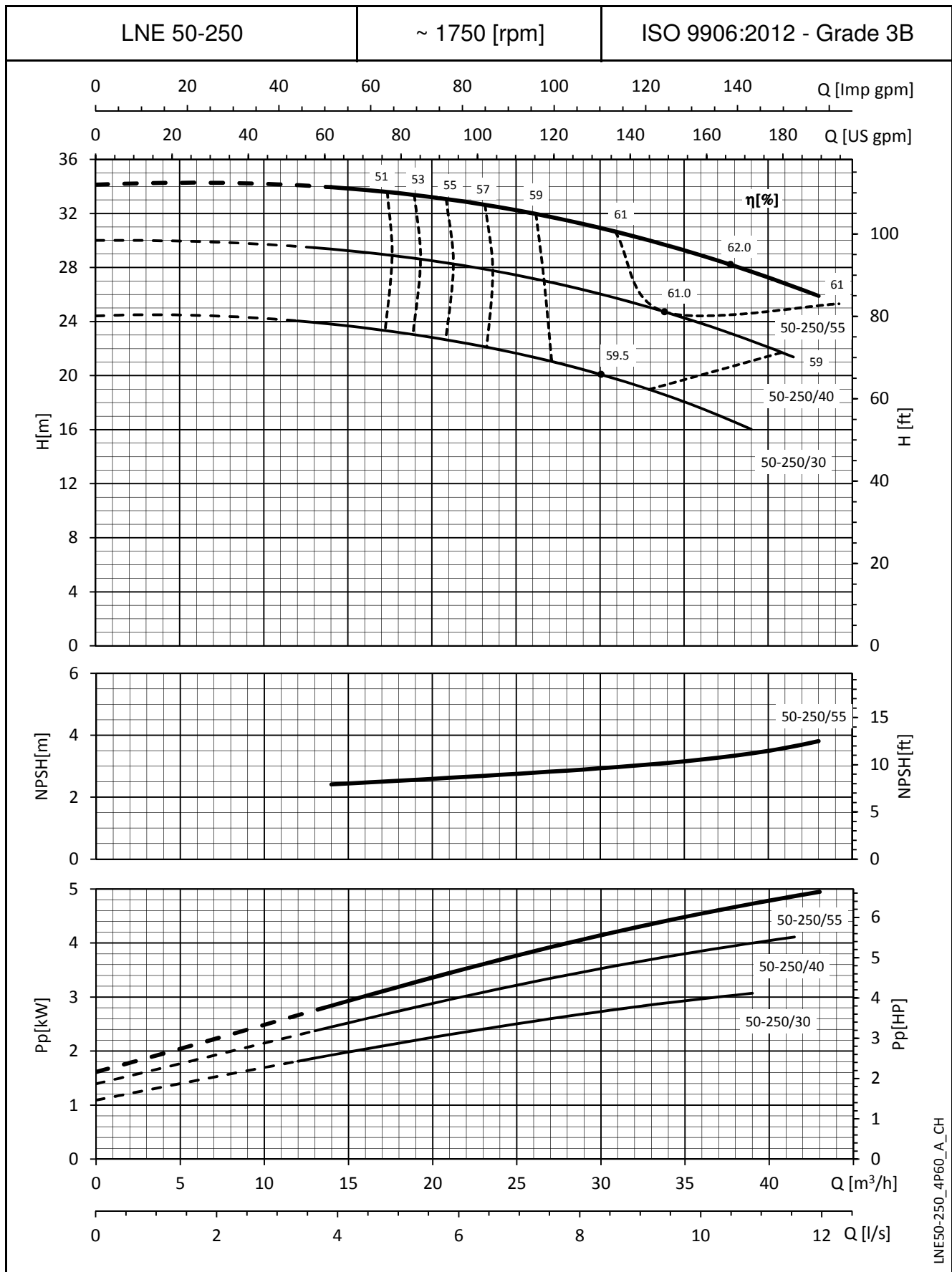
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

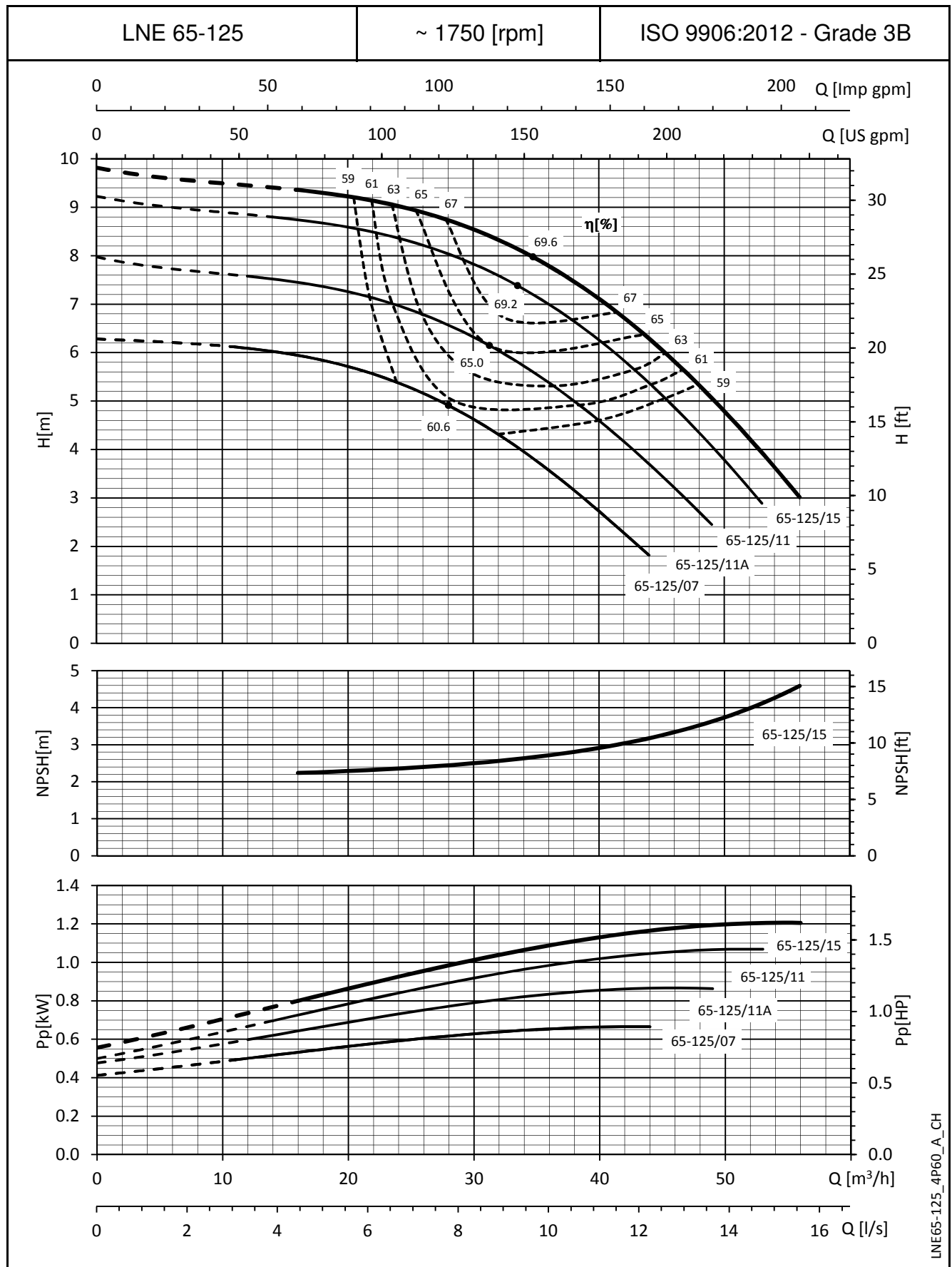
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

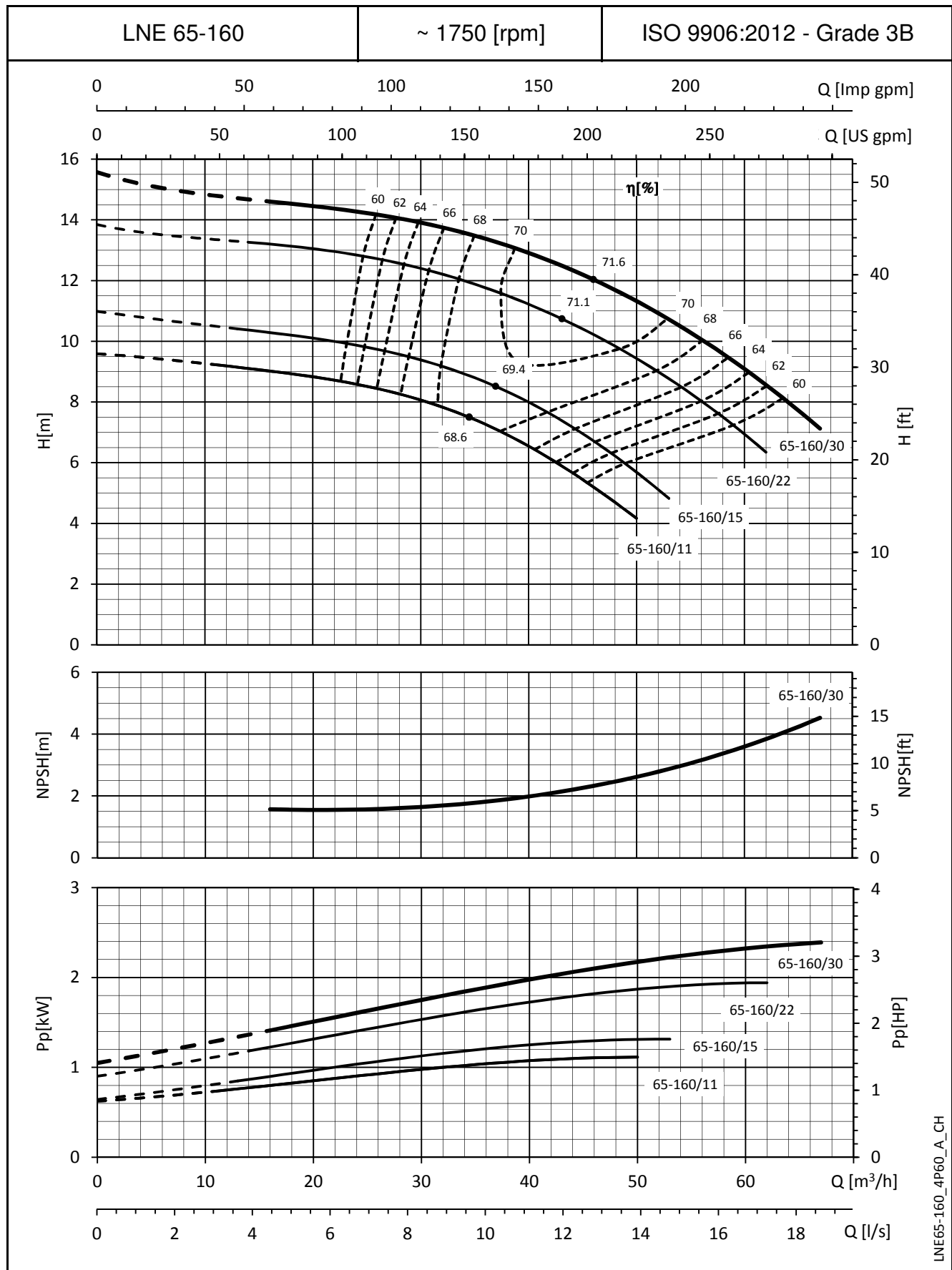
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

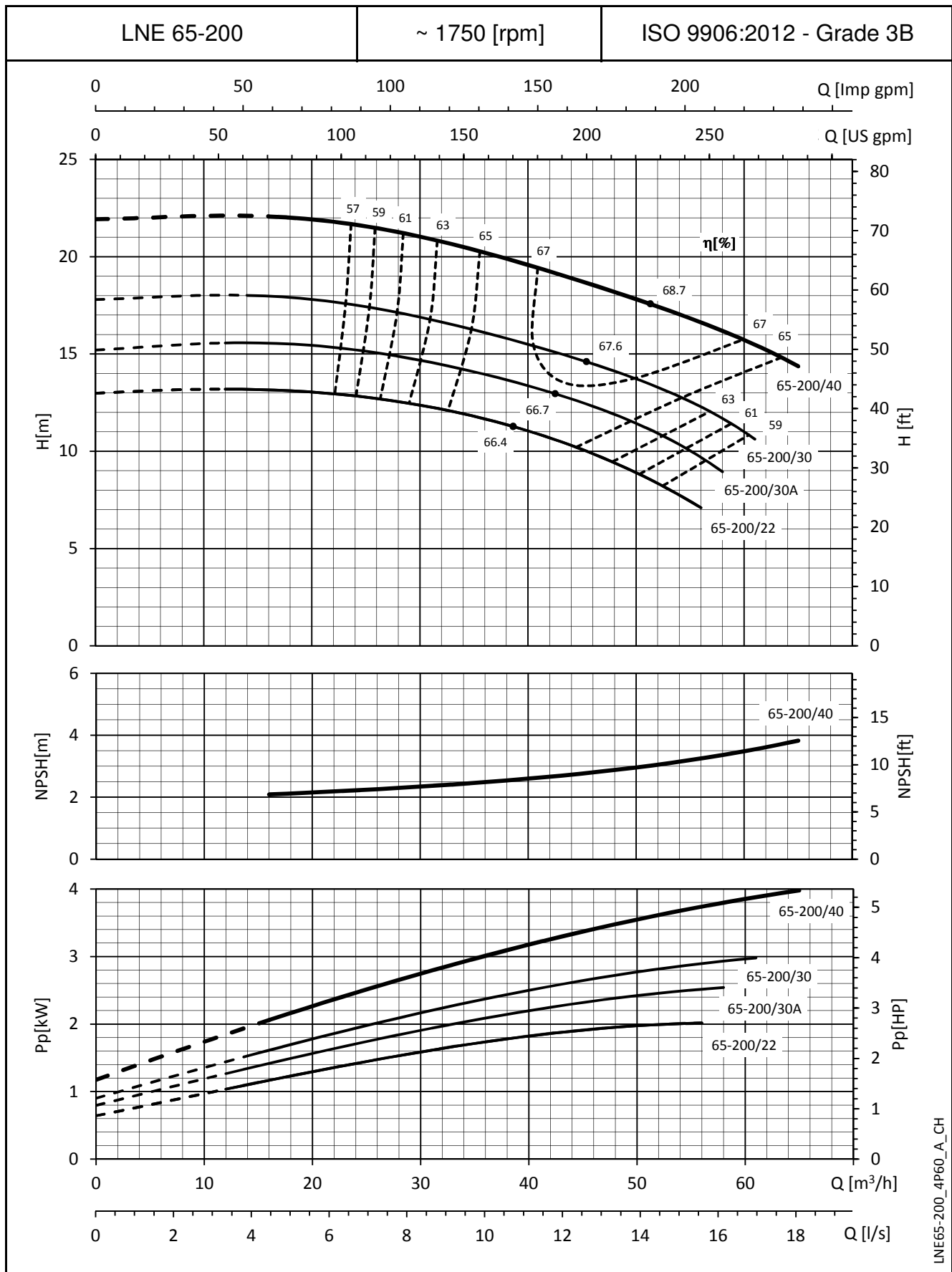
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

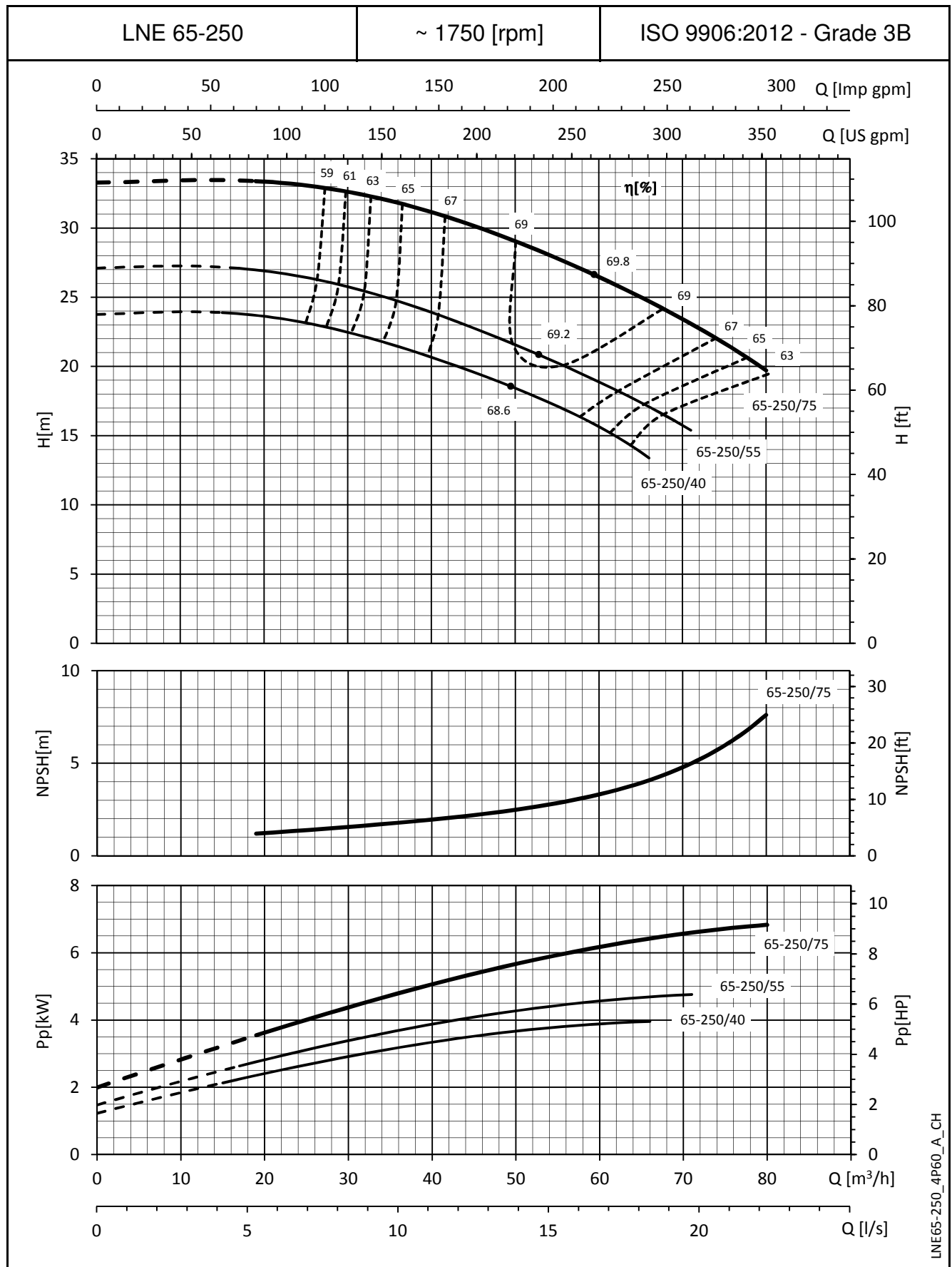
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

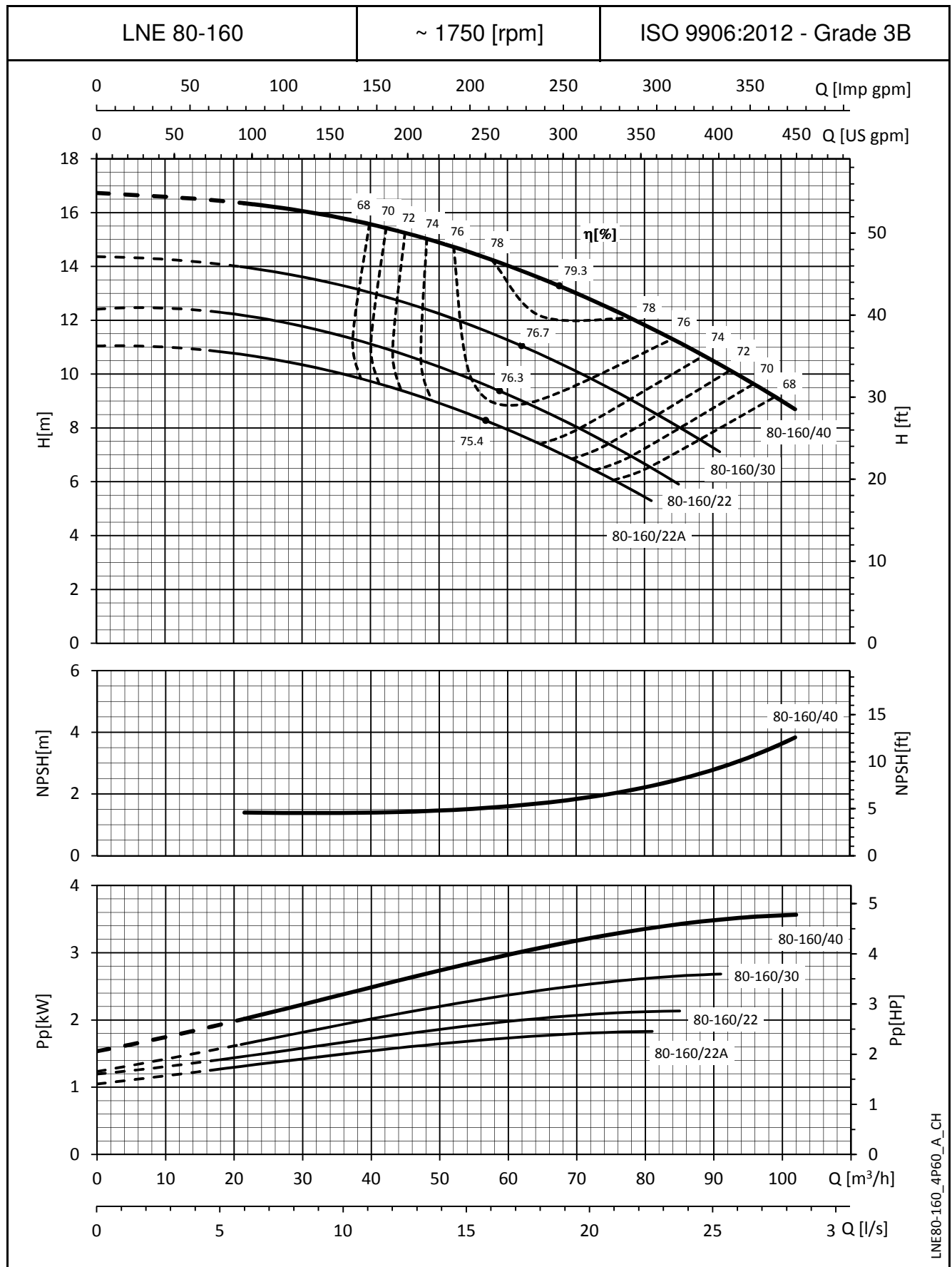
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

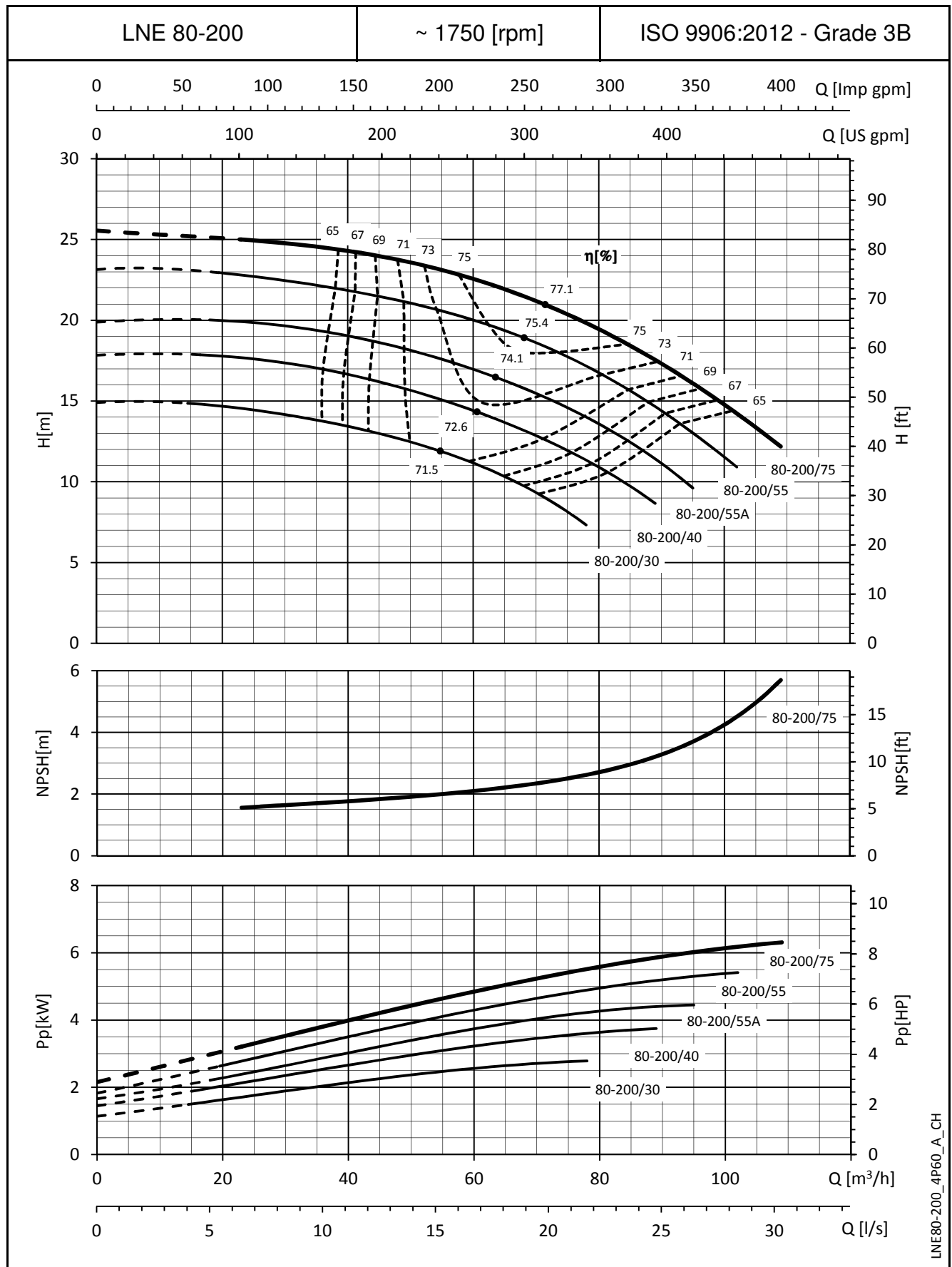
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

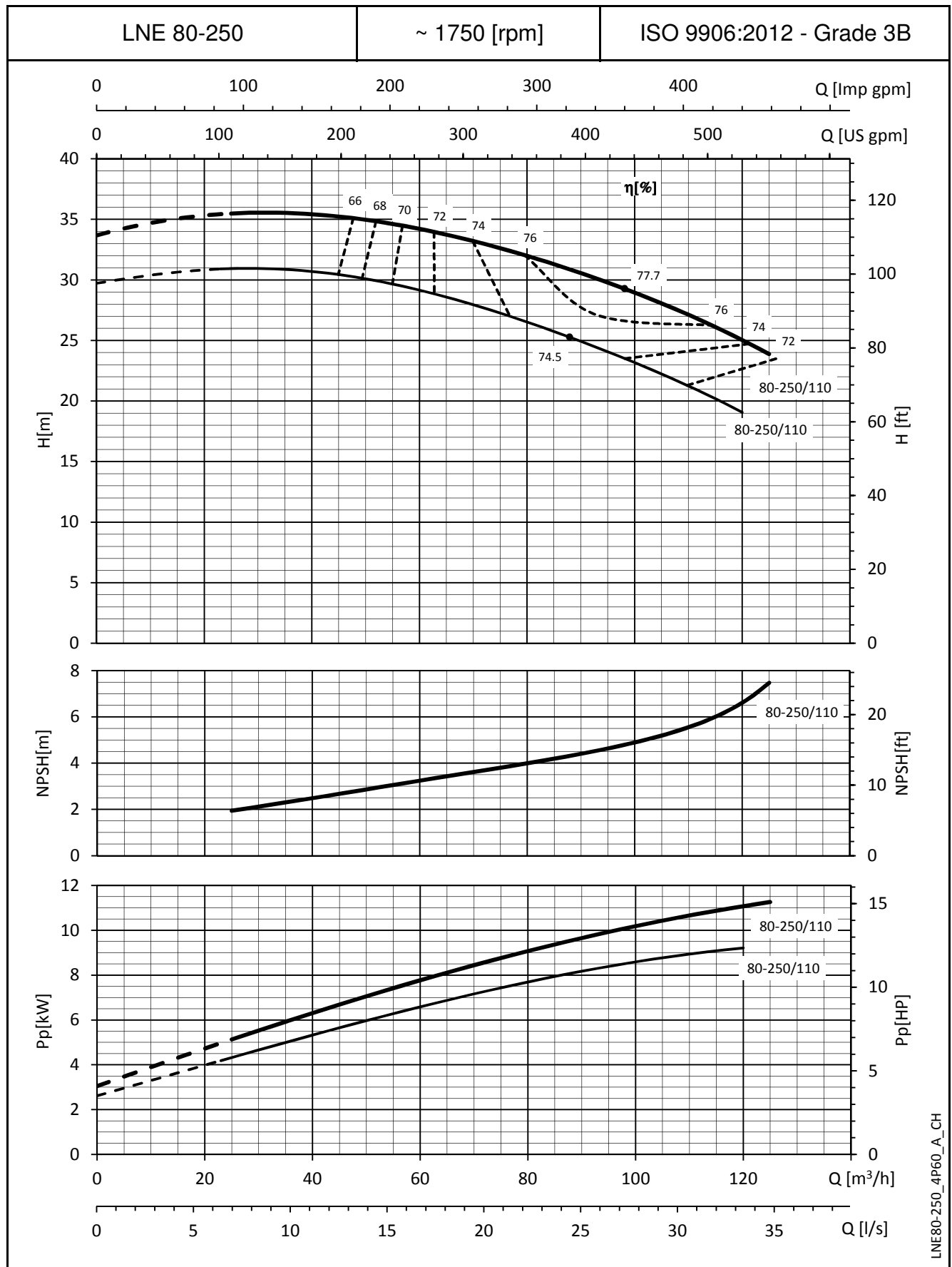
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

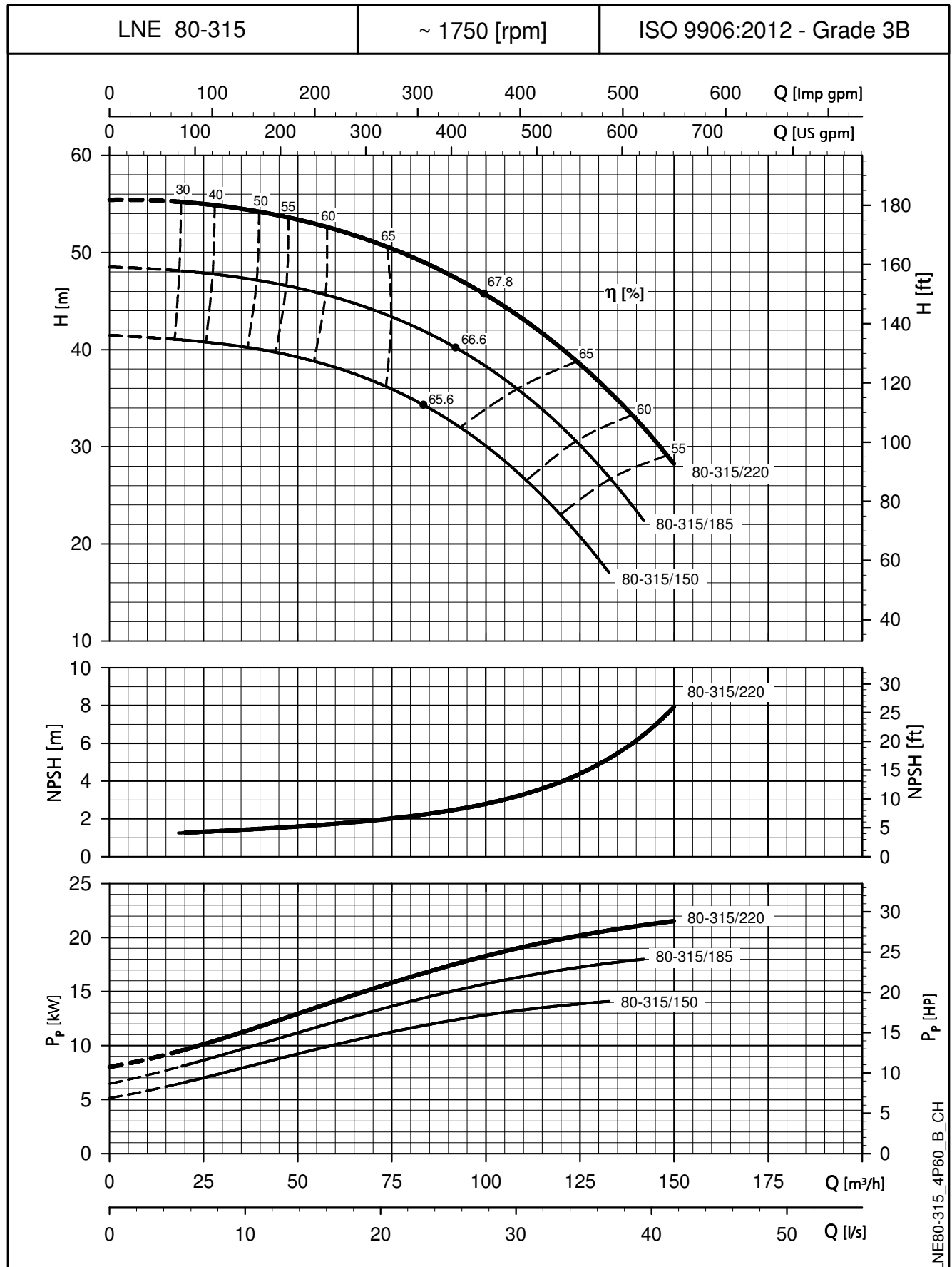
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

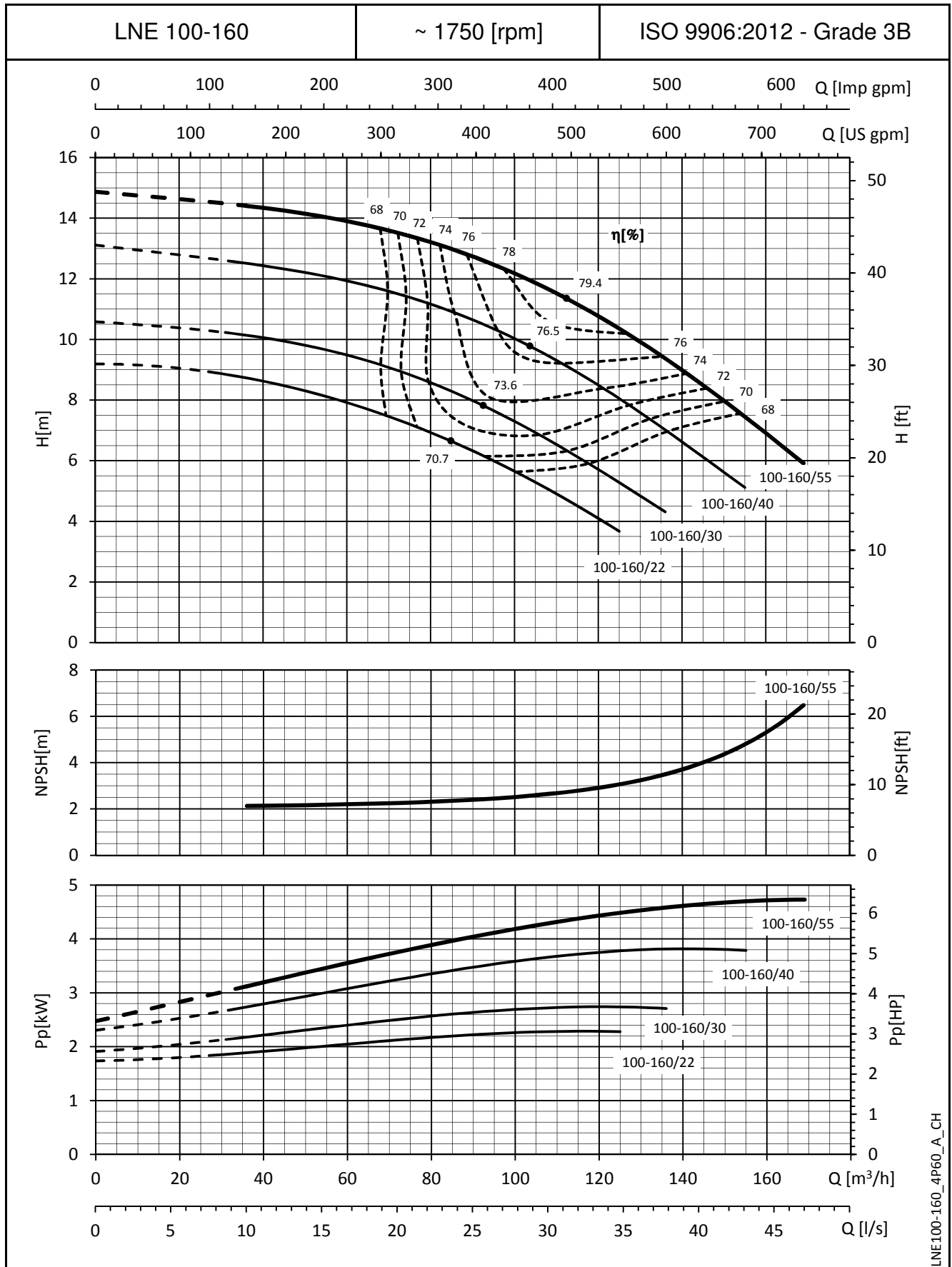
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

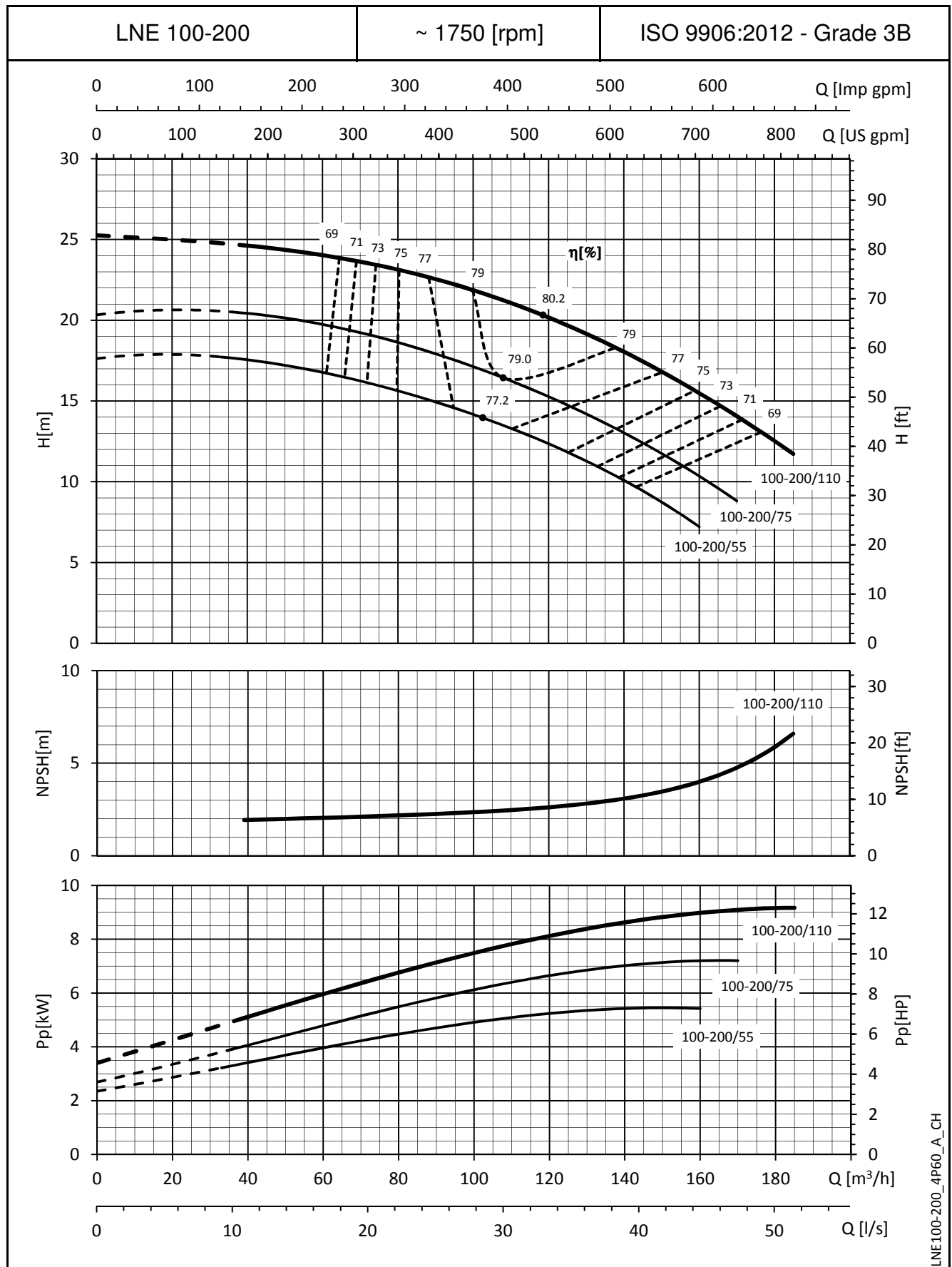
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

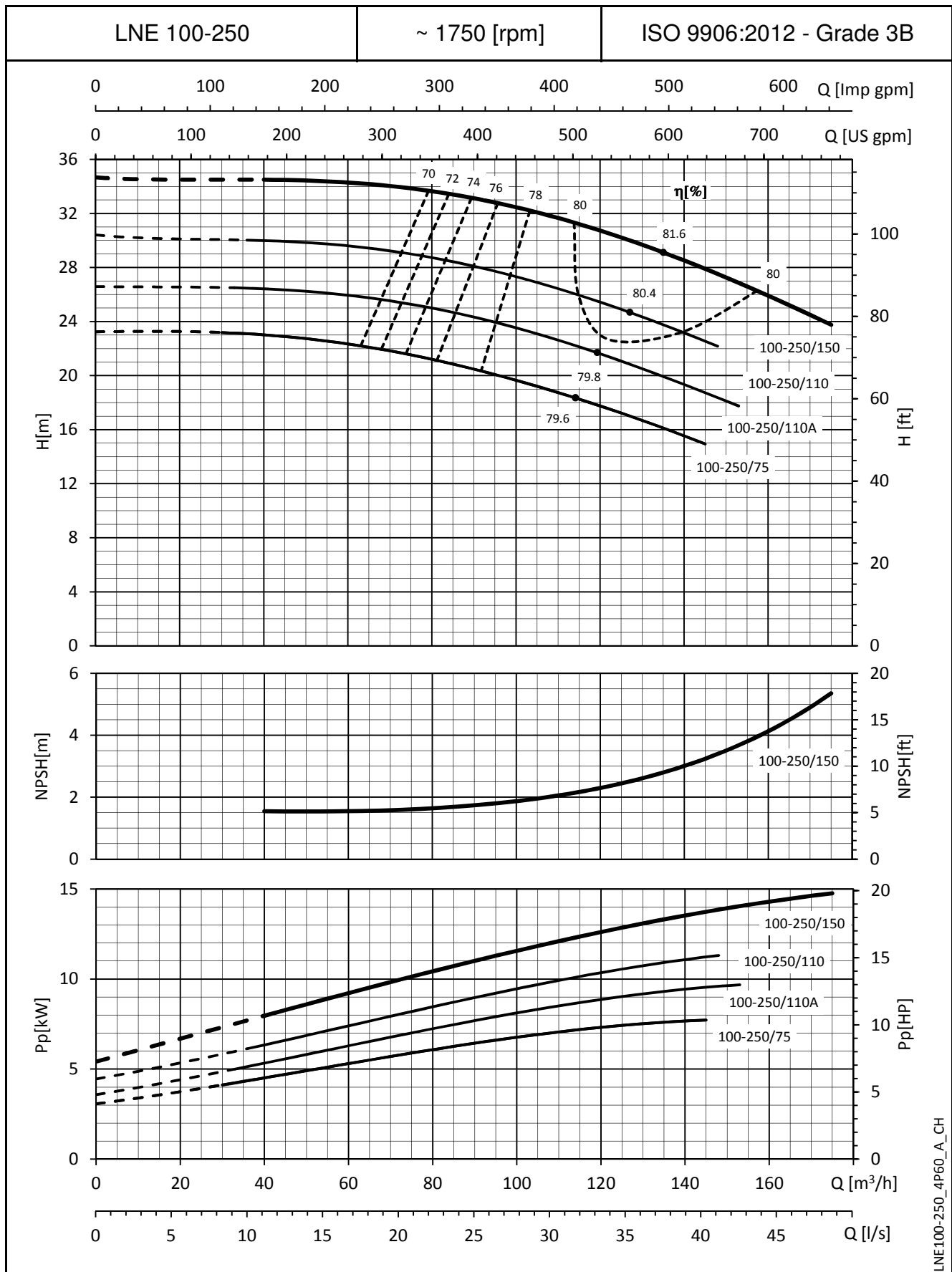
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

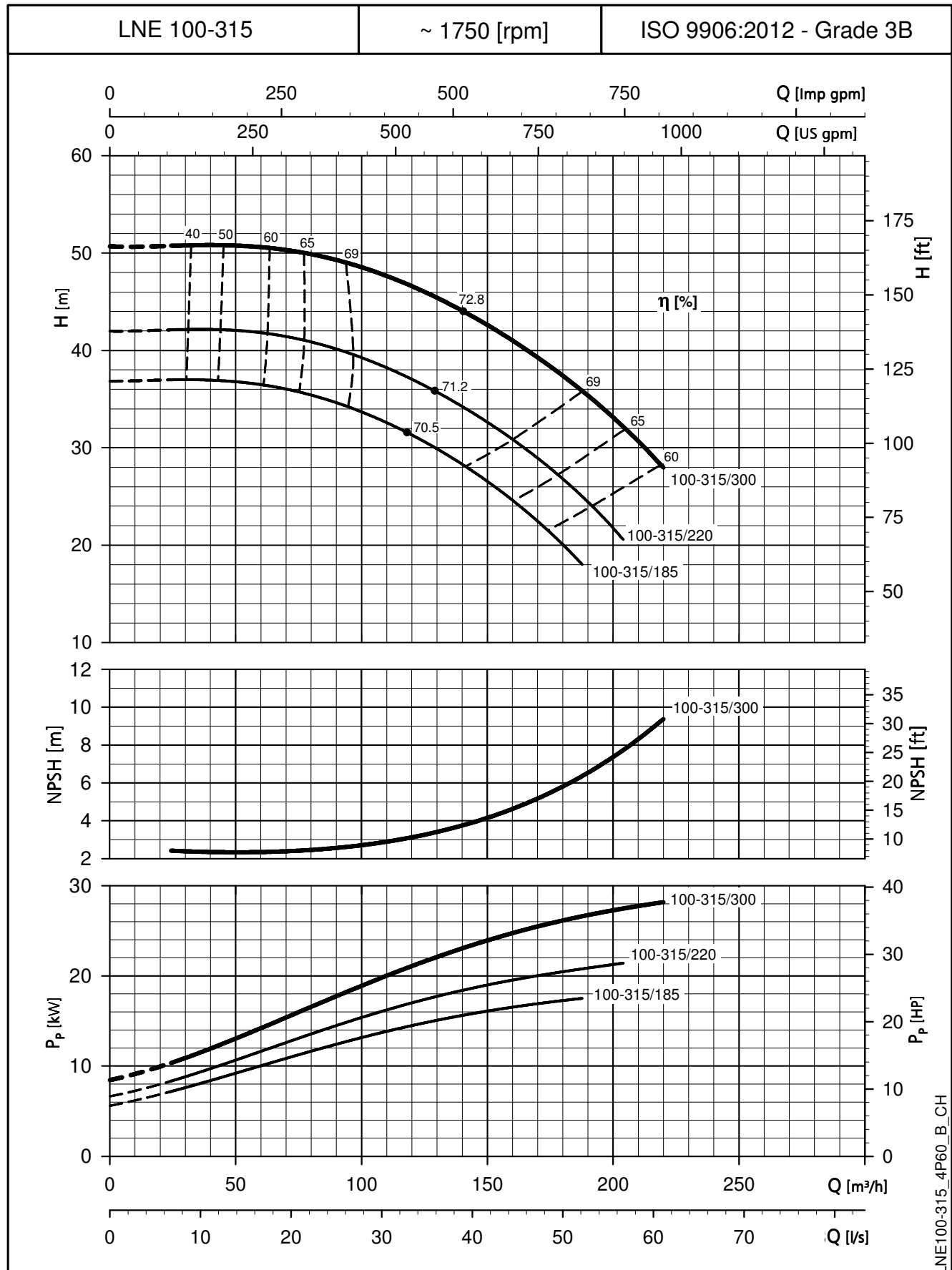
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



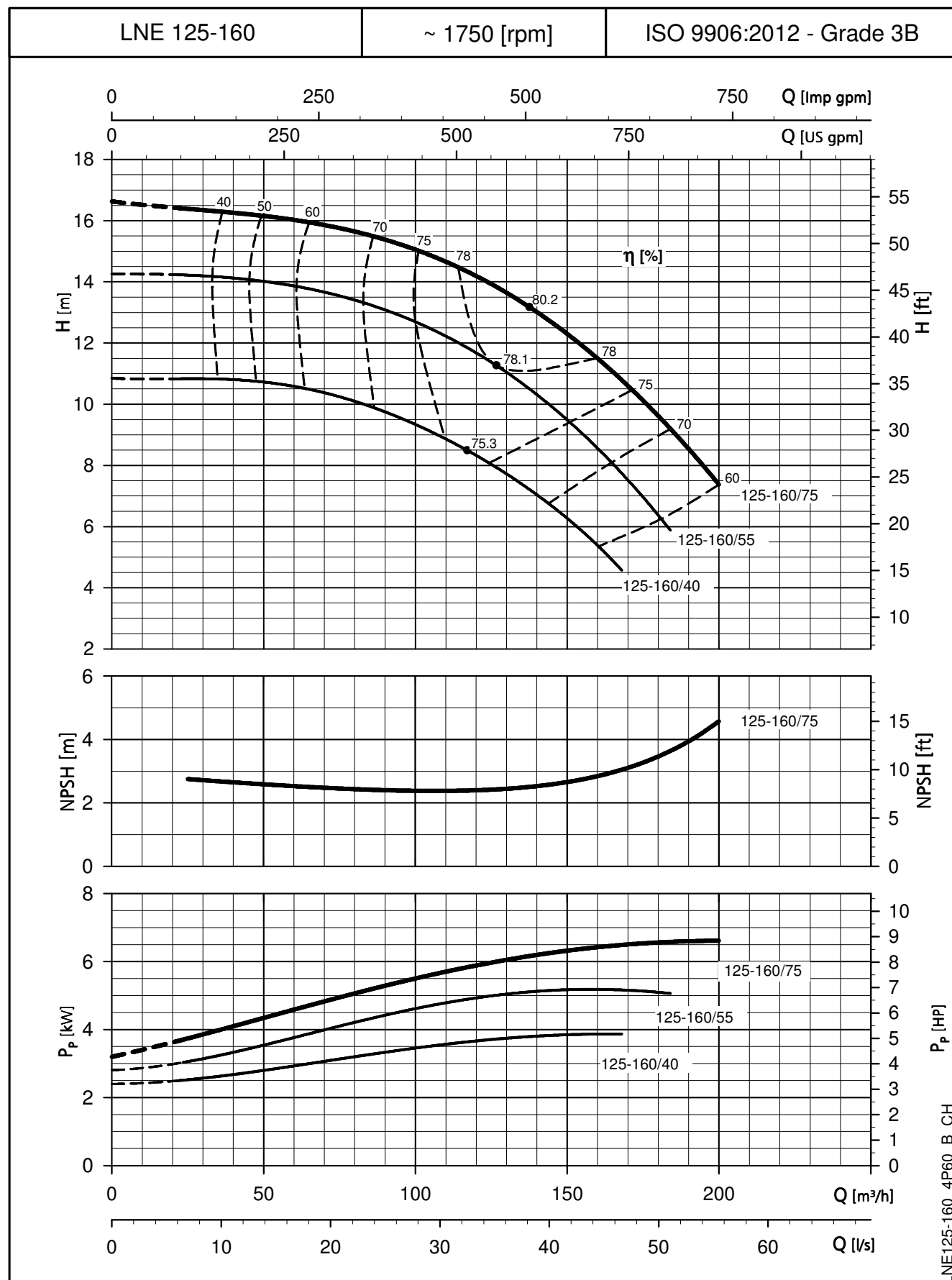
The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



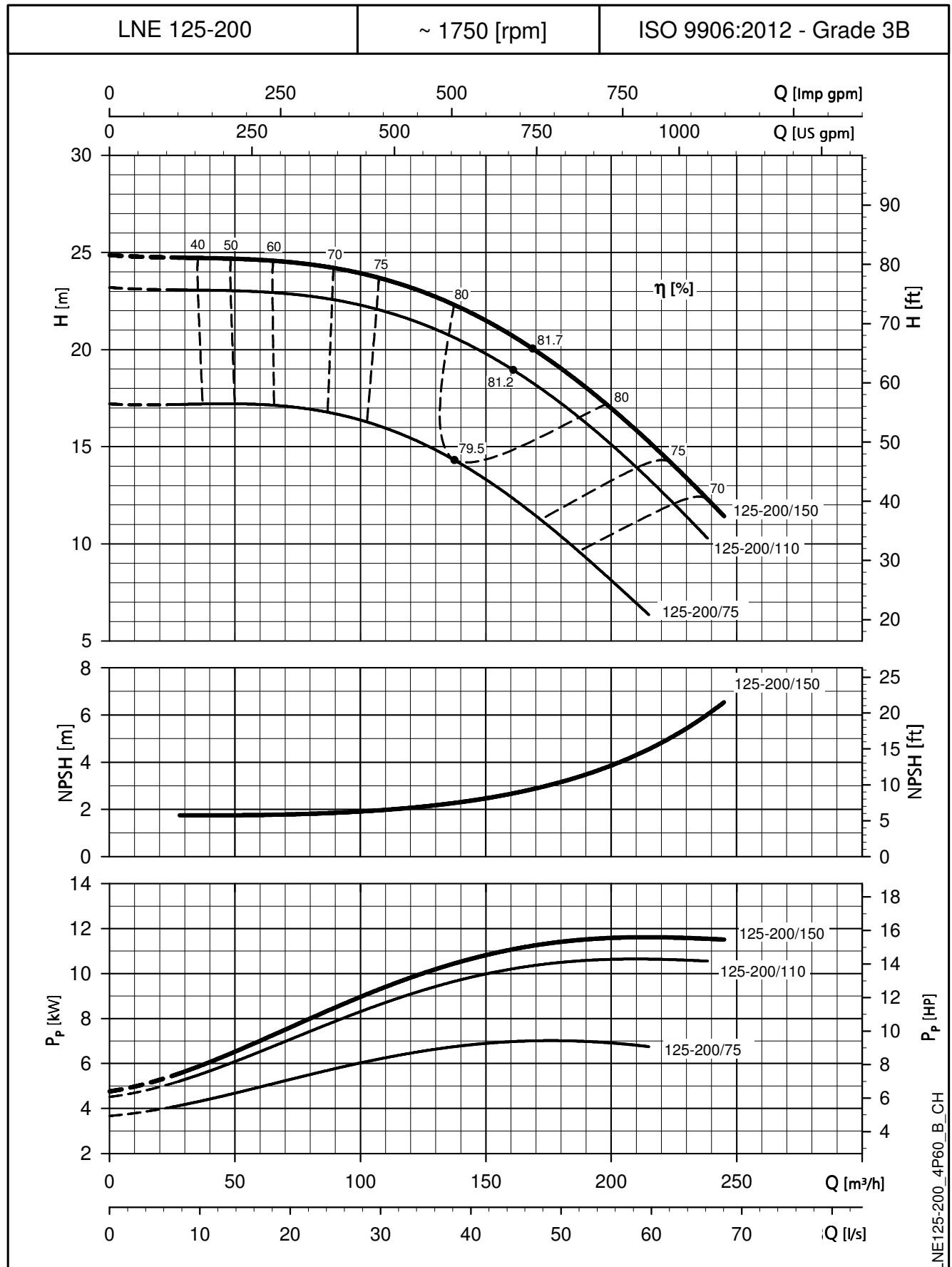
The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES


The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

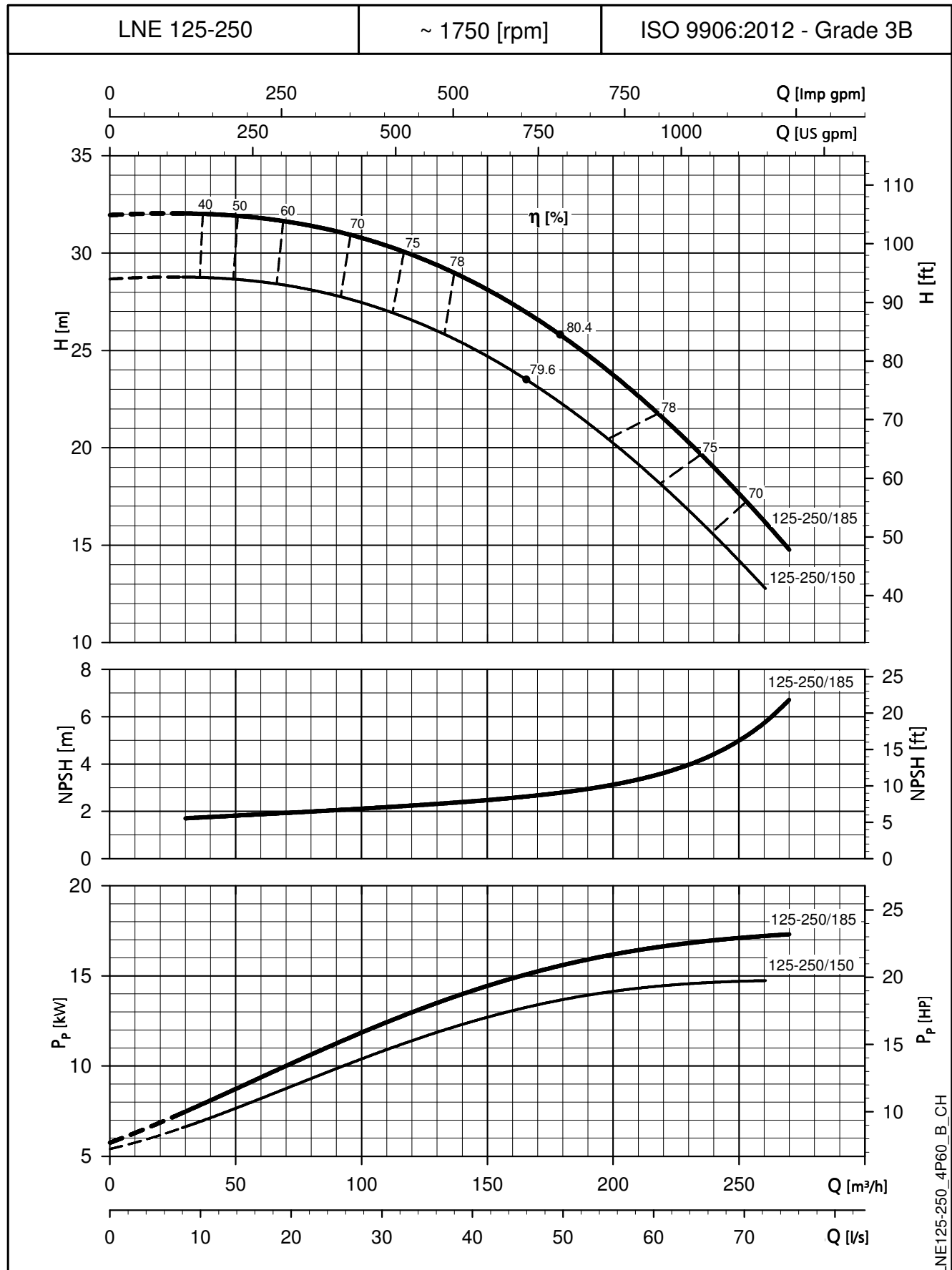
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

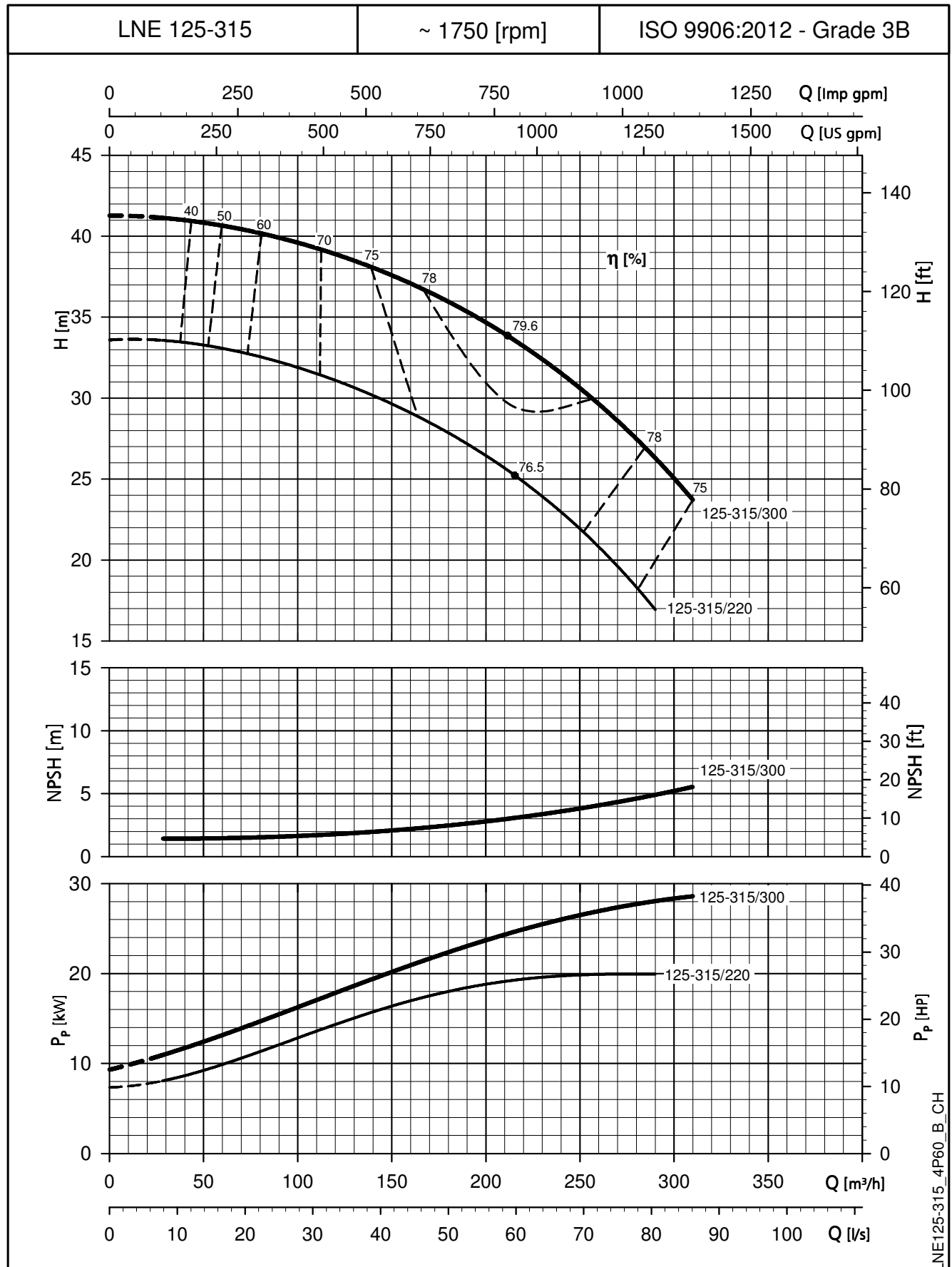
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

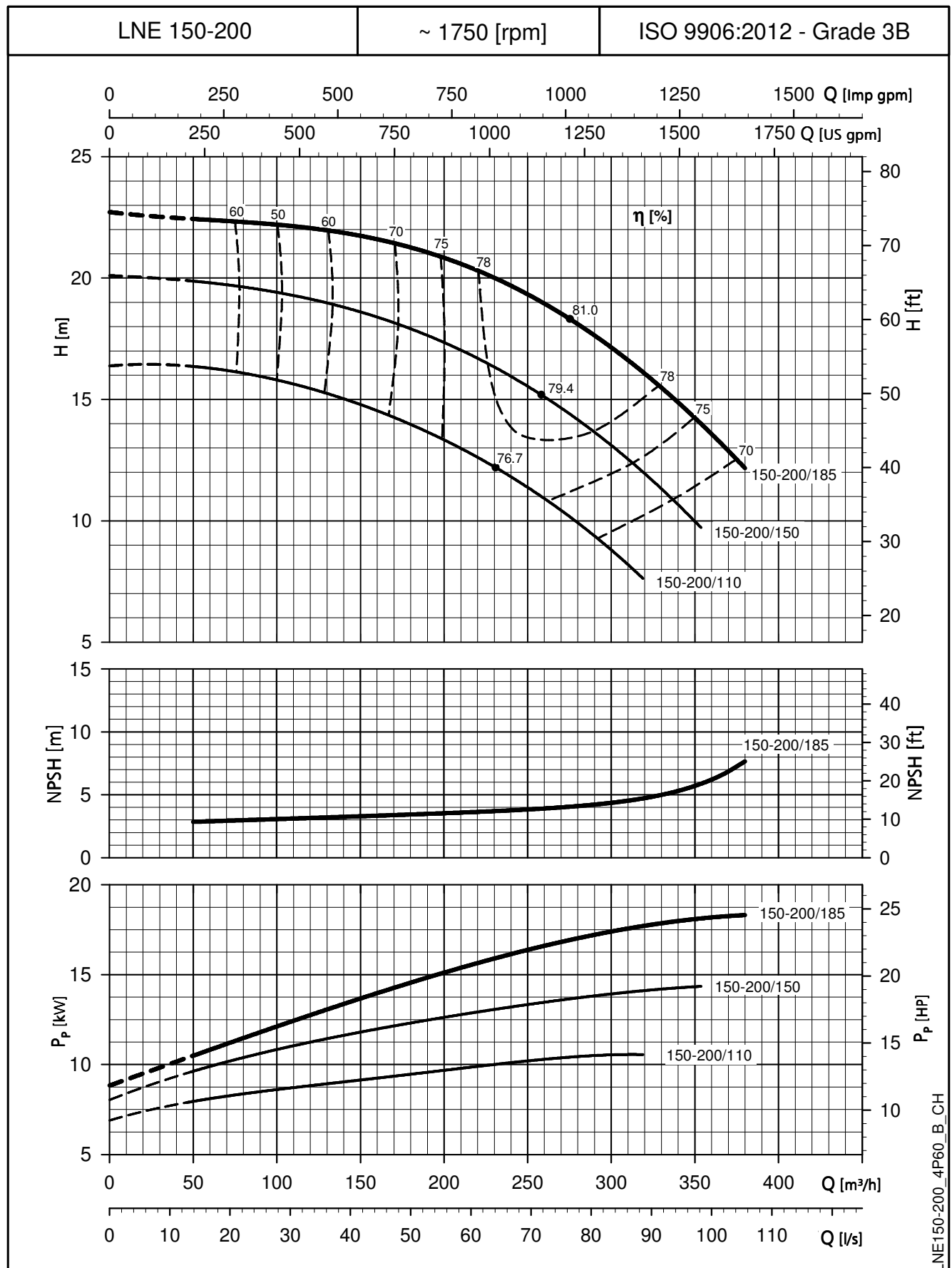
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

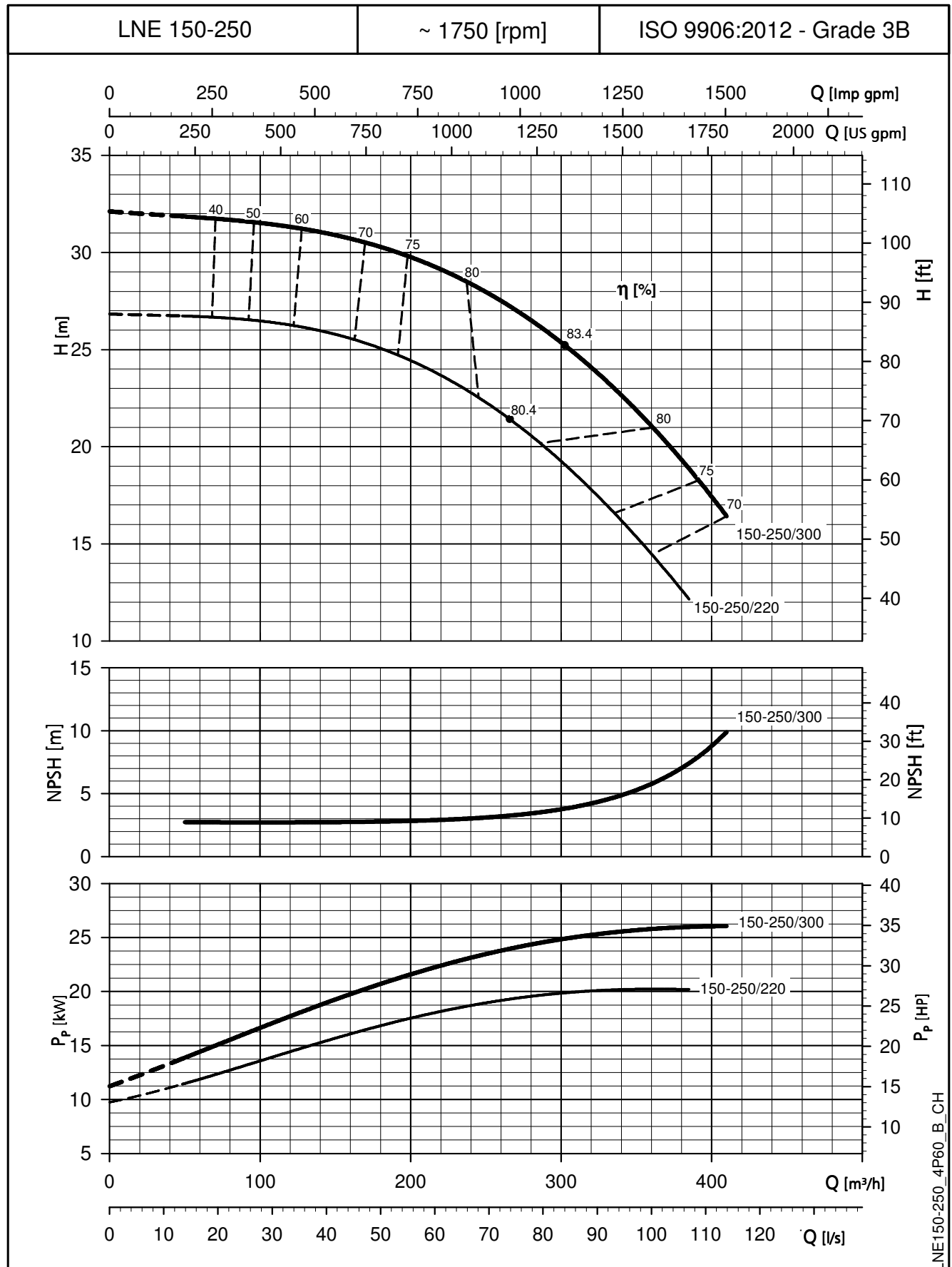
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

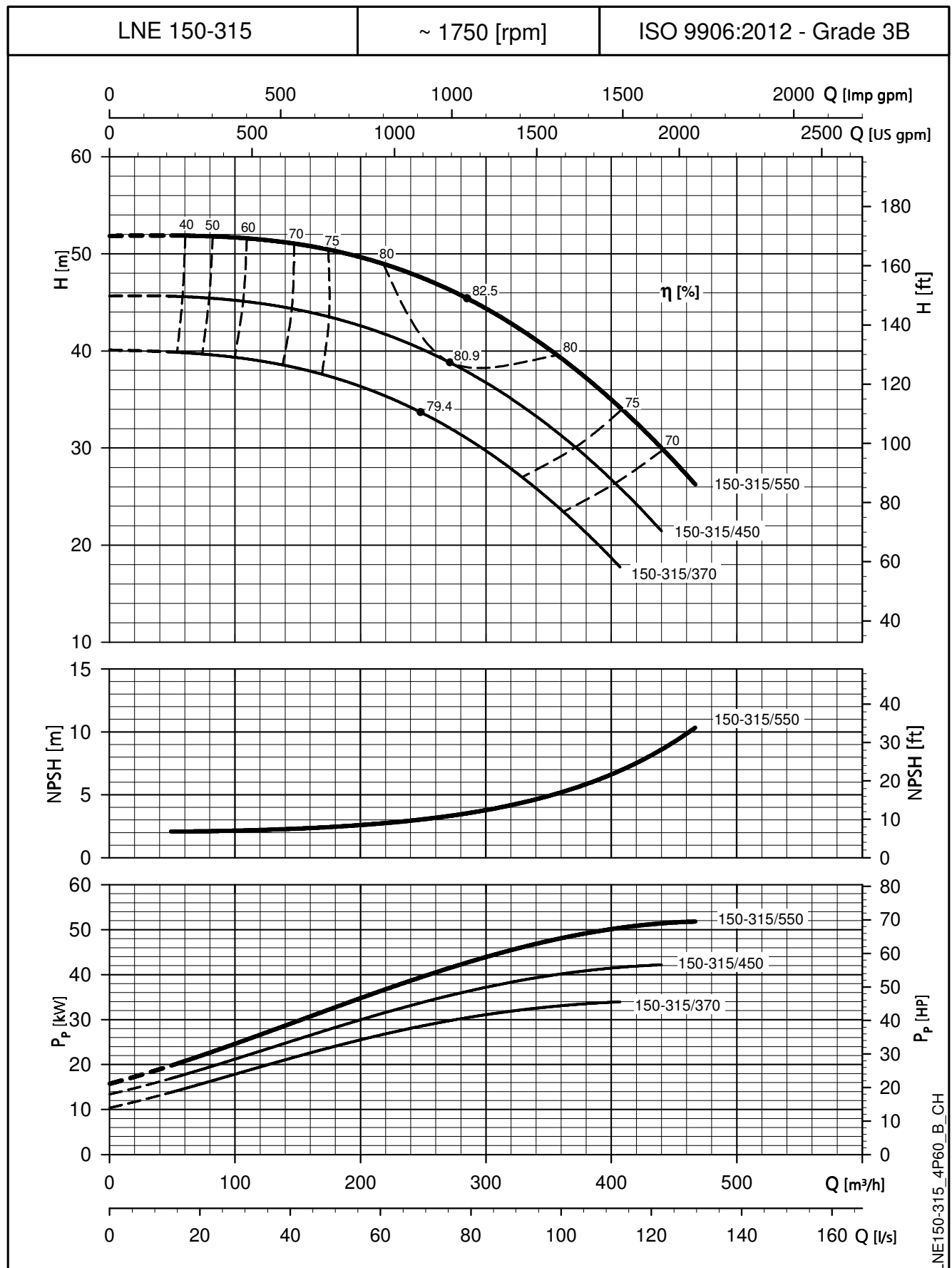
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

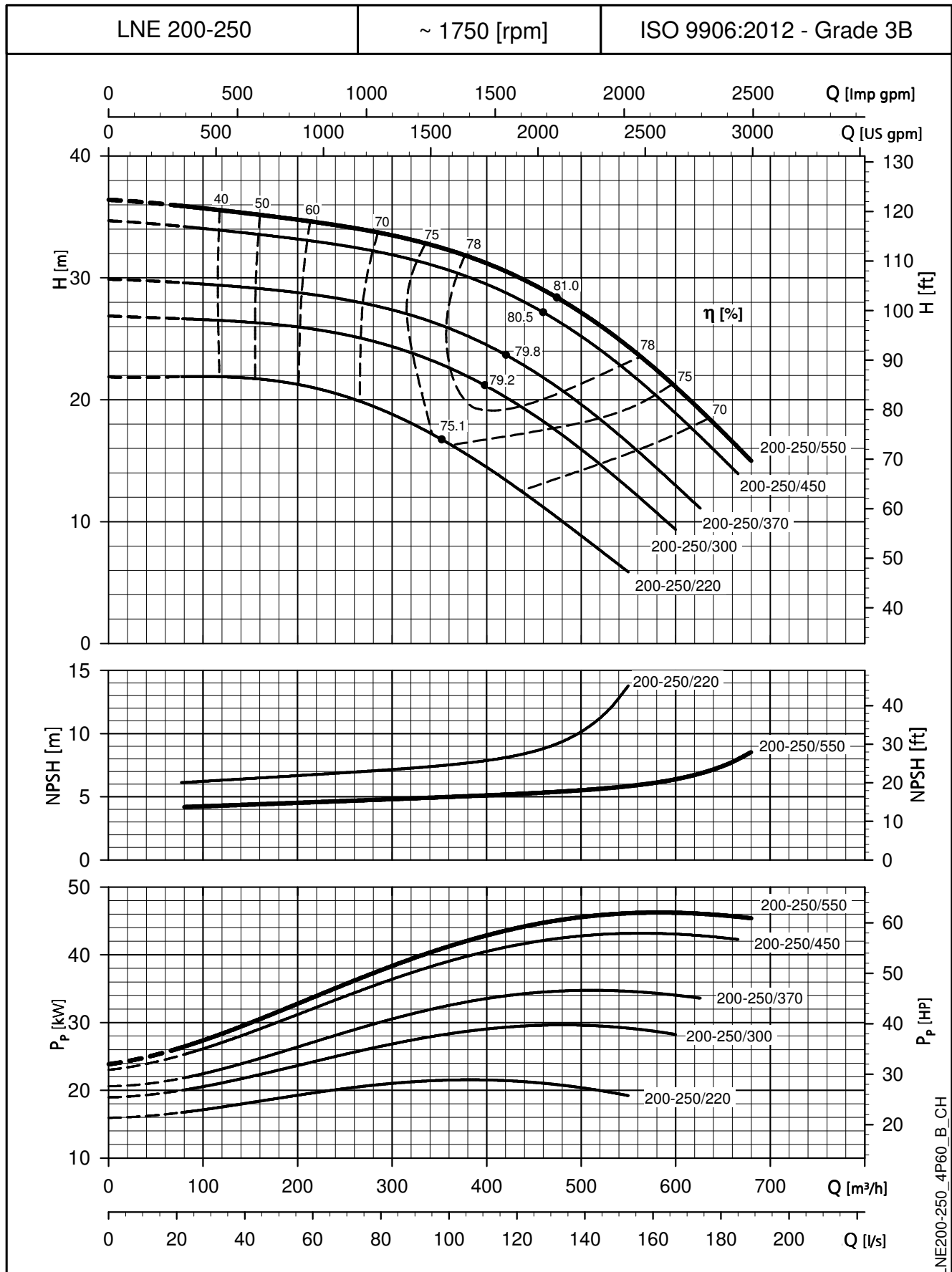
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

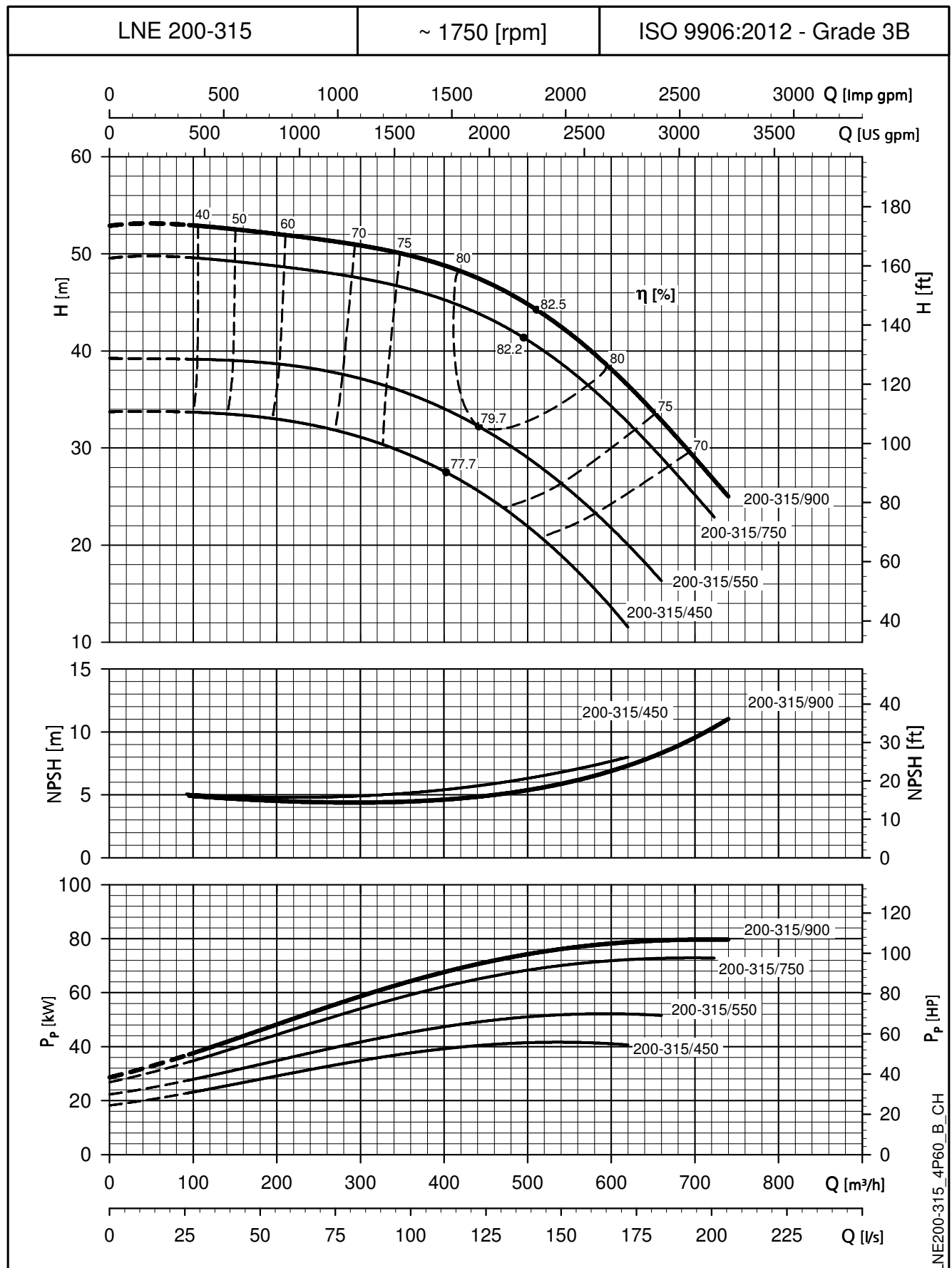
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

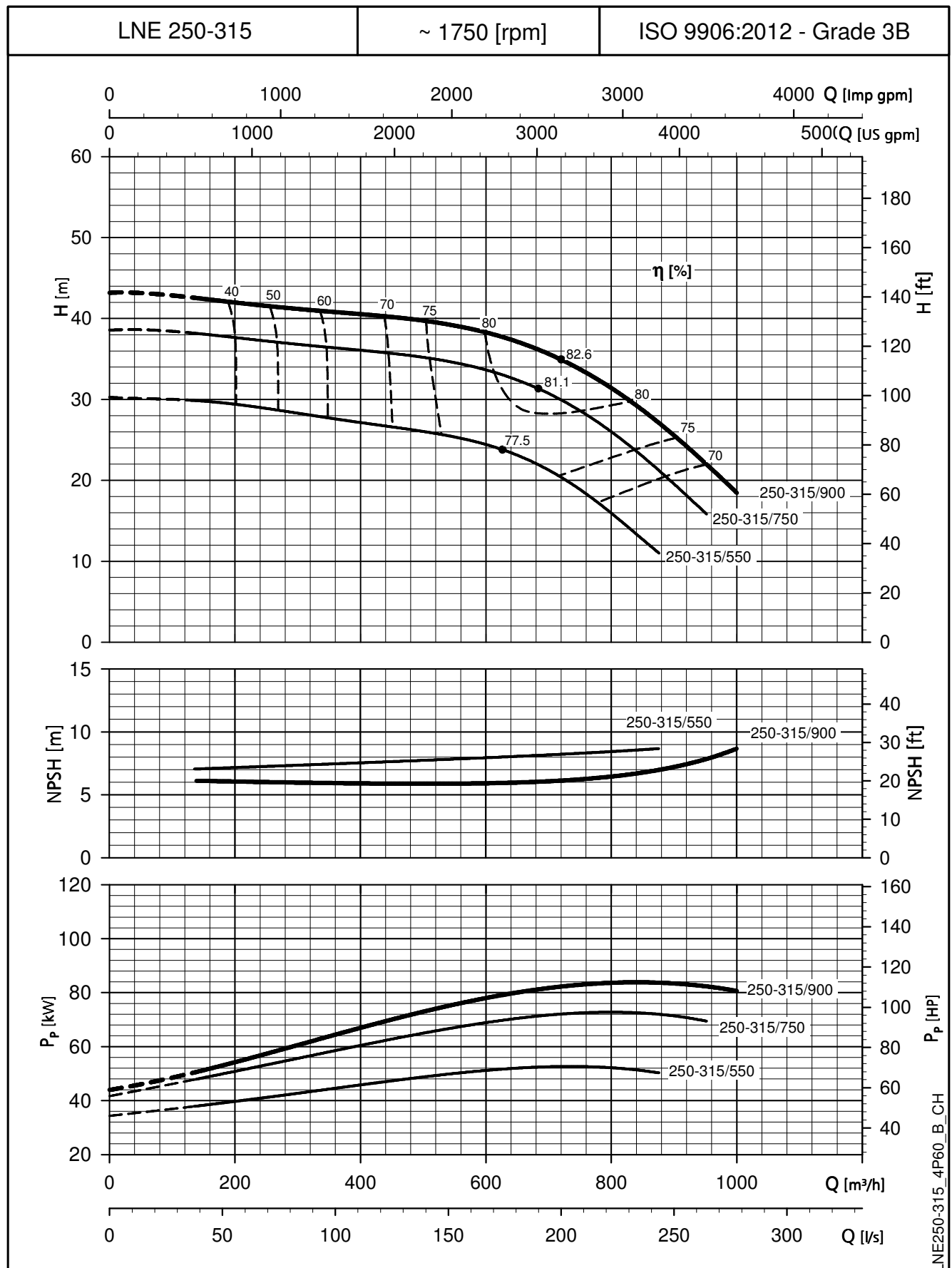
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNE SERIES

OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES

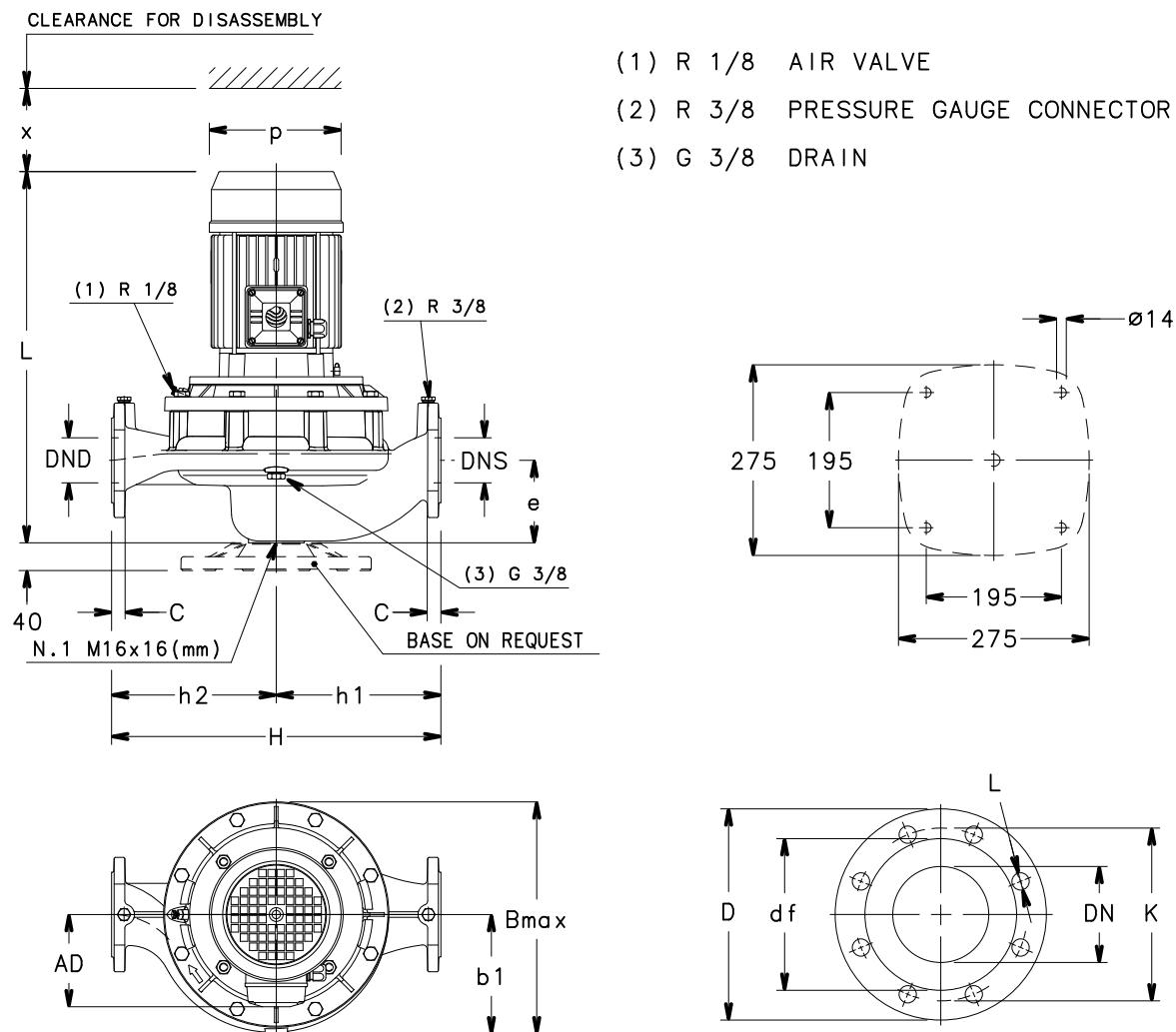


The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

DIMENSIONS AND WEIGHTS

LNEE 40, 50, 65, 80, 100 SERIES

DIMENSIONS AND WEIGHTS AT 60 Hz, 2 POLES



FLANGE

EN1092-2, PN 16 *)					
DN	D	K	C	df	L
32	140	100	18	76	4x19
40	150	110	18	84	4x19
50	165	125	20	99	4x19
65	185	145	20	118	4x19
80	200	160	22	132	8x19
100	230	180	24	157	8x19

*)...VALUE "C" AND "D" MAY VARY FROM STANDARD.

LNEE 40, 50, 65, 80, 100 SERIES

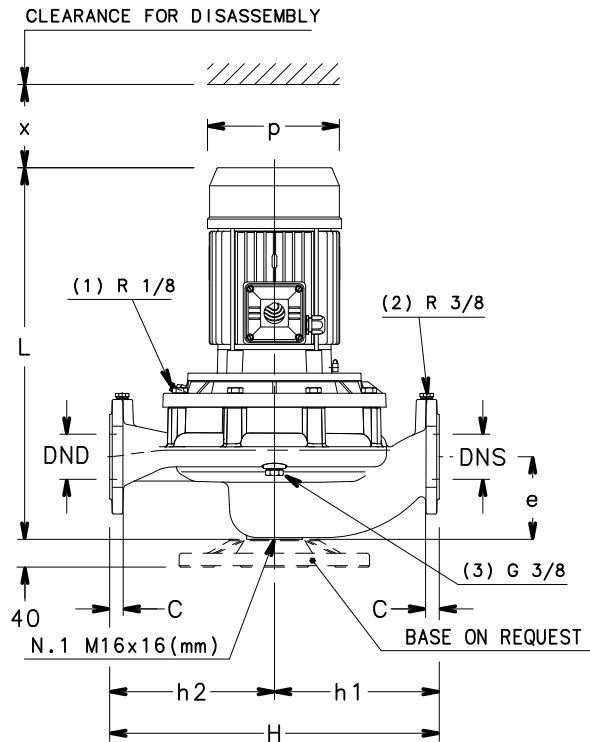
DIMENSIONS AND WEIGHTS AT 60 Hz, 2 POLES

PUMP TYPE LNEE...2	DIMENSIONS (mm)								B max	H	L	x	WEIGHT kg
	DND	DNS	e	h1	h2	AD	b1	p					
40-125/15/S	40	40	100	160	160	129	128	155	249	320	473	94	34
40-125/22/P	40	40	100	160	160	134	128	174	254	320	508	94	41
40-125/30/P	40	40	100	160	160	134	128	174	254	320	508	94	42
40-125/40/P	40	40	100	160	160	154	128	197	274	320	529	94	47
40-125/55/P	40	40	100	160	160	168	128	214	288	320	563	94	56
40-160/40/P	40	40	100	160	160	154	128	197	274	320	529	94	47
40-160/55/P	40	40	100	160	160	168	128	214	288	320	563	94	56
40-160/75/P	40	40	100	160	160	191	128	256	319	320	577	94	75
40-160/92/P	40	40	100	160	160	191	128	256	319	320	615	94	81
40-200/75/P	40	40	110	220	220	191	168	256	359	440	577	104	92
40-200/92/P	40	40	110	220	220	191	168	256	359	440	615	104	98
40-200/110/P	40	40	110	220	220	191	168	256	359	440	615	104	101
40-250/150/P	40	40	110	220	220	240	168	313	408	440	704	104	141
40-250/185/P	40	40	110	220	220	240	168	313	408	440	704	104	152
40-250/220/P	40	40	110	220	220	240	168	313	408	440	704	104	161
50-125/30/P	50	50	116	180	160	134	128	174	252	340	514	96	46
50-125/40/P	50	50	116	180	160	154	128	197	272	340	535	96	51
50-125/55/P	50	50	116	180	160	168	128	214	286	340	569	96	60
50-125/75/P	50	50	116	180	160	191	128	256	319	340	583	96	79
50-160/55/P	50	50	116	180	160	168	128	214	286	340	569	96	60
50-160/75/P	50	50	116	180	160	191	128	256	319	340	583	96	81
50-160/92/P	50	50	116	180	160	191	128	256	319	340	621	96	87
50-160/110/P	50	50	116	180	160	191	128	256	319	340	621	96	90
50-200/92/P	50	50	111	220	220	191	168	256	359	440	616	108	101
50-200/110/P	50	50	111	220	220	191	168	256	359	440	616	108	104
50-250/185/P	50	50	111	220	220	240	168	313	408	440	705	108	155
50-250/220/P	50	50	111	220	220	240	168	313	408	440	705	108	164
65-125/55/P	65	65	105	190	170	168	148	214	316	360	583	100	72
65-125/75/P	65	65	105	190	170	191	148	256	339	360	597	100	91
65-125/92/P	65	65	105	190	170	191	148	256	339	360	597	100	97
65-125/110/P	65	65	105	190	170	191	148	256	339	360	597	100	100
65-160/110/P	65	65	105	190	170	191	148	256	339	360	635	94	100
65-200/185/P	65	65	118	237,5	237,5	240	178	313	409	475	712	105	159
65-200/220/P	65	65	118	237,5	237,5	240	178	313	409	475	712	105	168
65-250/220/P	65	65	118	237,5	237,5	240	178	313	409	475	712	105	168
80-160/150/P	80	80	114	215	205	240	168	313	408	420	723	111	152
80-160/185/P	80	80	114	215	205	240	168	313	408	420	723	111	163
80-160/220/P	80	80	114	215	205	240	168	313	408	420	723	111	172
100-160/185/P	100	100	140	260	240	240	179	313	408	500	754	123	173
100-160/220/P	100	100	140	260	240	240	179	313	408	500	754	123	182

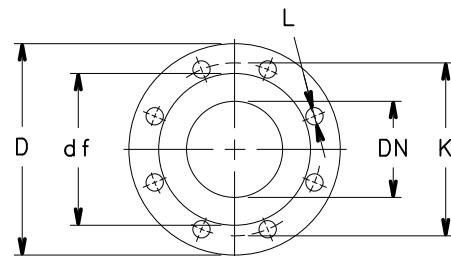
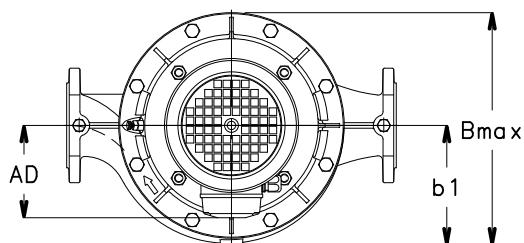
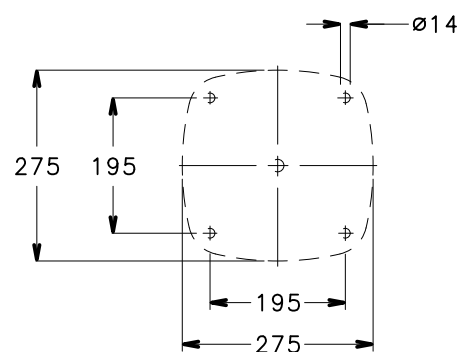
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

LNEE-40-100_2p60-en_a_td

LNEE 40, 50, 65, 80, 100 SERIES
DIMENSIONS AND WEIGHTS AT 60 Hz, 4 POLES



- (1) R 1/8 AIR VALVE
- (2) R 3/8 PRESSURE GAUGE CONNECTOR
- (3) G 3/8 DRAIN



FLANGE

EN1092-2, PN 16 *)					
DN	D	K	C	df	L
32	140	100	18	76	4x19
40	150	110	18	84	4x19
50	165	125	20	99	4x19
65	185	145	20	118	4x19
80	200	160	22	132	8x19
100	230	180	24	157	8x19

*)...VALUE "C" AND "D" MAY VARY FROM STANDARD.

LNEE 40, 50, 65, 80, 100 SERIES

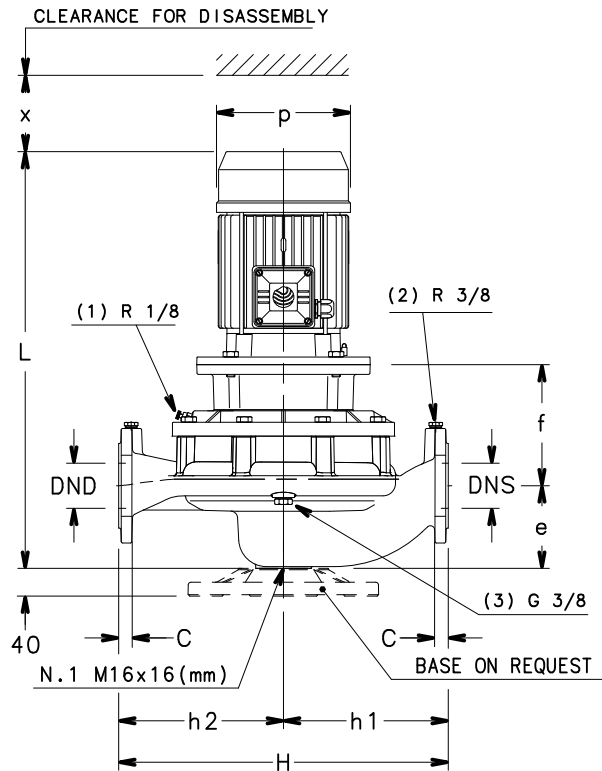
DIMENSIONS AND WEIGHTS AT 60 Hz, 4 POLES

PUMP TYPE LNEE..4	DIMENSIONS (mm)								B max	H	L	x	WEIGHT kg
	DND	DNS	e	h1	h2	AD	b1	p					
40-125/02/S	40	40	100	160	160	121	128	140	248	320	441	94	27
40-125/03/S	40	40	100	160	160	121	128	140	248	320	441	94	28
40-125/05/S	40	40	100	160	160	129	128	155	249	320	473	94	30
40-125/07/X	40	40	100	160	160	128	128	159	248	320	441	94	33
40-160/05/S	40	40	100	160	160	129	128	155	249	320	473	94	30
40-160/07/X	40	40	100	160	160	128	128	159	248	320	441	94	33
40-160/11/P	40	40	100	160	160	134	128	174	254	320	508	94	41
40-200/11/P	40	40	110	220	220	134	168	174	336	440	508	104	56
40-200/15/P	40	40	110	220	220	134	168	174	336	440	508	104	60
40-250/22/P	40	40	110	220	220	168	168	214	336	440	532	104	70
40-250/30A/P	40	40	110	220	220	168	168	214	336	440	563	104	74
40-250/30/P	40	40	110	220	220	168	168	214	336	440	563	104	74
40-250/40/P	40	40	110	220	220	168	168	198	336	440	592	104	93
50-125/03/S	50	50	116	180	160	121	128	140	246	340	447	96	32
50-125/05/S	50	50	116	180	160	129	128	155	247	340	479	96	34
50-125/07/X	50	50	116	180	160	128	128	159	246	340	447	96	37
50-125/11/P	50	50	116	180	160	134	128	174	252	340	514	96	45
50-160/07/X	50	50	116	180	160	128	128	159	246	340	447	96	37
50-160/11/P	50	50	116	180	160	134	128	174	252	340	514	96	45
50-160/15A/P	50	50	116	180	160	134	128	174	252	340	514	96	49
50-160/15/P	50	50	116	180	160	134	128	174	252	340	514	96	49
50-200/15/P	50	50	111	220	220	134	168	174	336	440	509	108	63
50-250/30/P	50	50	111	220	220	168	168	214	336	440	564	108	77
50-250/40/P	50	50	111	220	220	168	168	198	336	440	609	108	96
50-250/55/P	50	50	111	220	220	191	168	256	359	440	616	108	102
65-125/07/X	65	65	105	190	170	128	148	159	296	360	461	100	49
65-125/11A/P	65	65	105	190	170	134	148	174	296	360	528	100	55
65-125/11/P	65	65	105	190	170	134	148	174	296	360	528	100	55
65-125/15/P	65	65	105	190	170	134	148	174	296	360	528	100	59
65-160/11/P	65	65	105	190	170	134	148	174	296	360	528	94	55
65-160/15/P	65	65	105	190	170	134	148	174	296	360	528	94	59
65-200/22/P	65	65	118	237,5	237,5	168	178	214	347	475	540	105	77
65-200/30A/P	65	65	118	237,5	237,5	168	178	214	347	475	571	105	81
65-200/30/P	65	65	118	237,5	237,5	168	178	214	347	475	571	105	81
65-200/40/P	65	65	118	237,5	237,5	168	178	198	347	475	600	105	100
65-250/40/P	65	65	118	237,5	237,5	168	178	198	347	475	616	105	100
65-250/55/P	65	65	118	237,5	237,5	191	178	256	360	475	623	105	106
65-250/75/P	65	65	118	237,5	237,5	191	178	256	360	475	623	105	111
80-160/22A/P	80	80	114	215	205	168	168	214	336	420	551	111	78
80-160/22/P	80	80	114	215	205	168	168	214	336	420	551	111	78
80-160/30/P	80	80	114	215	205	168	168	214	336	420	582	111	82
80-160/40/P	80	80	114	215	205	168	168	198	336	420	611	111	101
100-160/22/P	100	100	140	260	240	168	179	214	347	500	582	123	91
100-160/30/P	100	100	140	260	240	168	179	214	347	500	613	123	95
100-160/40/P	100	100	140	260	240	168	179	198	347	500	642	123	114
100-160/55/P	100	100	140	260	240	191	179	256	359	500	665	123	119

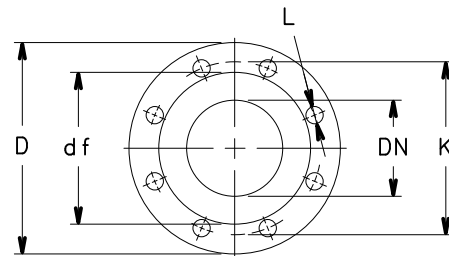
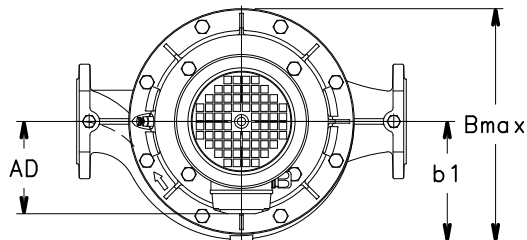
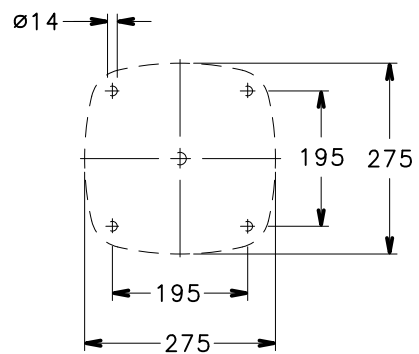
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

LNEE-40-100_4p60-en_a_td

LNES 40, 50, 65 SERIES
DIMENSIONS AND WEIGHTS AT 60 Hz, 2 POLES



- (1) R 1/8 AIR VALVE
- (2) R 3/8 PRESSURE GAUGE CONNECTOR
- (3) G 3/8 DRAIN



FLANGE

EN1092-2, PN 16 *)					
DN	D	K	C	df	L
32	140	100	18	76	4x19
40	150	110	18	84	4x19
50	165	125	20	99	4x19
65	185	145	20	118	4x19
80	200	160	22	132	8x19
100	230	180	24	157	8x19

*)...VALUE "C" AND "D" MAY VARY FROM STANDARD.

LNES 40, 50, 65 SERIES

DIMENSIONS AND WEIGHTS AT 60 Hz, 2 POLES

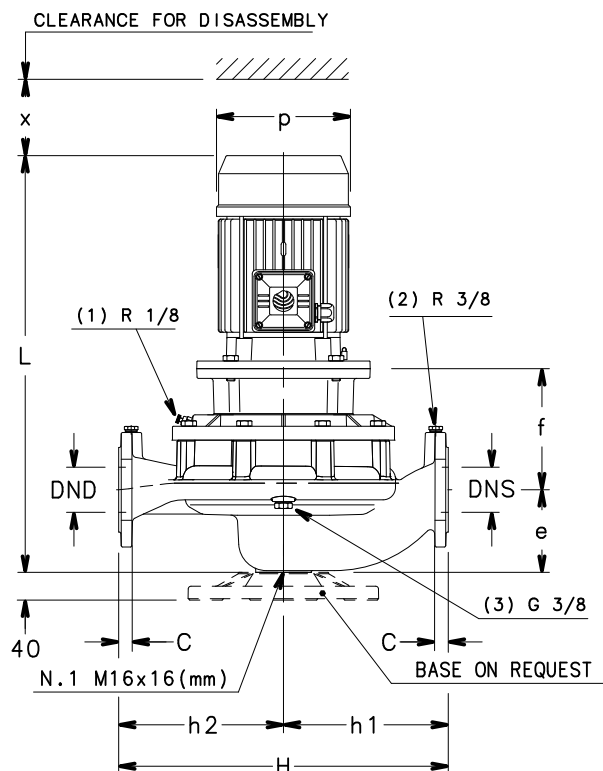
PUMP TYPE LNES..2	DIMENSIONS (mm)									B max	H	L	x	WEIGHT kg
	DND	DNS	e	f	h1	h2	AD	b1	p					
40-125/15/S	40	40	100	165	160	160	129	128	155	249	320	528	94	37
40-125/22/P	40	40	100	165	160	160	134	128	174	254	320	563	94	44
40-125/30/P	40	40	100	175	160	160	134	128	174	254	320	573	94	49
40-125/40/P	40	40	100	175	160	160	154	128	197	274	320	594	94	52
40-125/55/P	40	40	100	202	160	160	168	128	214	288	320	677	94	65
40-160/40/P	40	40	100	175	160	160	154	128	197	274	320	594	94	52
40-160/55/P	40	40	100	202	160	160	168	128	214	288	320	677	94	65
40-160/75/P	40	40	100	202	160	160	191	128	256	311	320	669	94	84
40-160/110A/P	40	40	100	232	160	160	191	128	256	311	320	760	94	106
40-200/75/P	40	40	110	192	220	220	191	168	256	359	440	669	104	101
40-200/110A/P	40	40	110	222	220	220	191	168	256	359	440	760	104	118
40-200/110/P	40	40	110	222	220	220	191	168	256	359	440	760	104	118
40-250/150/P	40	40	110	222	220	220	240	168	313	408	440	826	104	151
40-250/185/P	40	40	110	222	220	220	240	168	313	408	440	826	104	160
40-250/220/P	40	40	110	222	220	220	240	168	313	408	440	826	104	171
50-125/30/P	50	50	116	165	180	160	134	128	174	252	340	579	96	52
50-125/40/P	50	50	116	165	180	160	154	128	197	272	340	600	96	55
50-125/55/P	50	50	116	192	180	160	168	128	214	286	340	683	96	65
50-125/75/P	50	50	116	192	180	160	191	128	256	319	340	675	96	84
50-160/55/P	50	50	116	192	180	160	168	128	214	286	340	683	96	69
50-160/75/P	50	50	116	192	180	160	191	128	256	319	340	675	96	88
50-160/110A/P	50	50	116	222	180	160	191	128	256	319	340	766	96	110
50-160/110/P	50	50	116	192	180	160	191	128	256	319	340	766	96	110
50-200/110A/P	50	50	111	222	220	220	191	168	256	359	440	761	108	121
50-200/110/P	50	50	111	222	220	220	191	168	256	359	440	761	108	121
50-200/150/P	50	50	111	222	220	220	240	168	313	408	440	827	108	154
50-200/185/P	50	50	111	222	220	220	240	168	313	408	440	827	108	163
50-250/185/P	50	50	111	222	220	220	240	168	313	408	440	827	108	163
50-250/220/P	50	50	111	222	220	220	240	168	313	408	440	827	108	174
50-250/300/W	50	50	111	228	220	220	317	168	402	518	440	996	108	283
50-250/370/W	50	50	111	228	220	220	317	168	402	518	440	996	108	298
65-125/55/P	65	65	105	217	190	170	168	148	214	316	360	697	100	72
65-125/75/P	65	65	105	217	190	170	191	148	256	339	360	689	100	95
65-125/110A/P	65	65	105	247	190	170	191	148	256	339	360	780	100	117
65-125/110/P	65	65	105	247	190	170	191	148	256	339	360	780	100	117
65-160/110/P	65	65	105	247	190	170	191	148	256	339	360	780	94	117
65-160/150/P	65	65	105	247	190	170	240	148	313	388	360	846	94	150
65-160/185/P	65	65	105	247	190	170	240	148	313	388	360	846	94	159
65-200/185/P	65	65	118	222	237,5	237,5	240	178	313	409	475	834	105	167
65-200/220/P	65	65	118	222	237,5	237,5	240	178	313	409	475	834	105	178
65-200/300/W	65	65	118	228	237,5	237,5	317	178	402	518	475	1003	105	287
65-250/220/P	65	65	118	222	237,5	237,5	240	178	313	409	475	834	105	178
65-250/300/W	65	65	118	228	237,5	237,5	317	178	402	518	475	1003	105	287
65-250/370/W	65	65	118	228	237,5	237,5	317	178	402	518	475	1003	105	302

NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

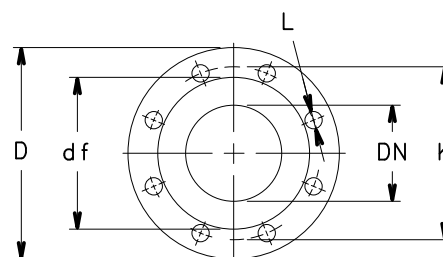
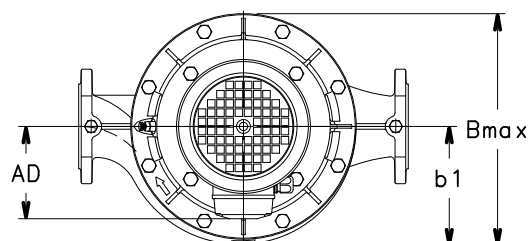
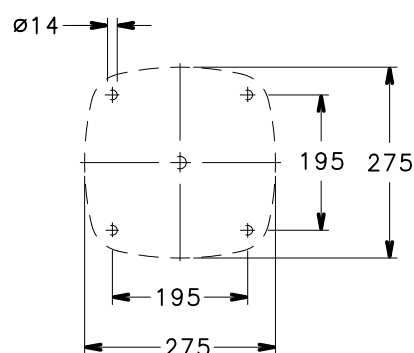
LNES-40-50-65_2p60-en_a_td

LNES 40, 50, 65 SERIES

DIMENSIONS AND WEIGHTS AT 60 Hz, 4 POLES



- (1) R 1/8 AIR VALVE
- (2) R 3/8 PRESSURE GAUGE CONNECTOR
- (3) G 3/8 DRAIN



FLANGE

EN1092-2, PN 16 *)					
DN	D	K	C	df	L
32	140	100	18	76	4x19
40	150	110	18	84	4x19
50	165	125	20	99	4x19
65	185	145	20	118	4x19
80	200	160	22	132	8x19
100	230	180	24	157	8x19

*)...VALUE "C" AND "D" MAY VARY FROM STANDARD.

LNES 40, 50, 65 SERIES

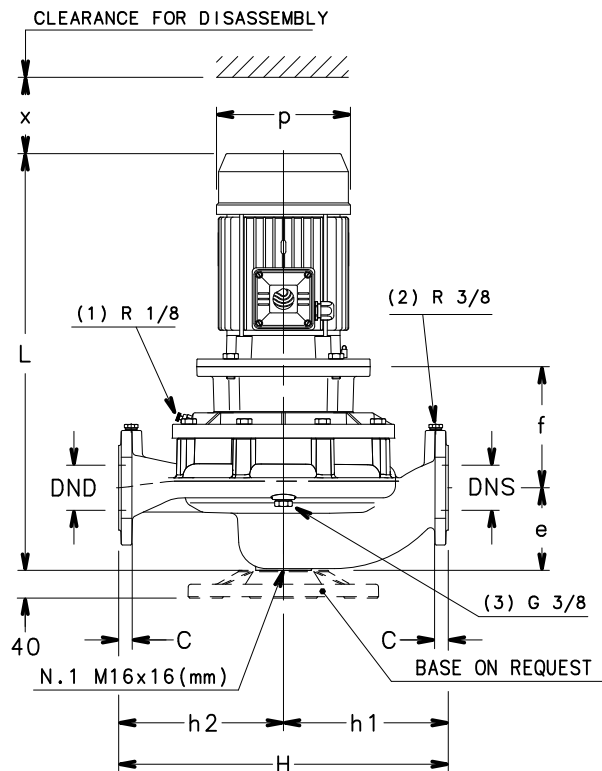
DIMENSIONS AND WEIGHTS AT 60 Hz, 4 POLES

PUMP TYPE LNES..4	DIMENSIONS (mm)									B max	H	L	x	WEIGHT kg
	DND	DNS	e	f	h1	h2	AD	b1	p					
40-125/05/S	40	40	100	165	160	160	129	128	155	249	320	528	94	33
40-125/07/X	40	40	100	165	160	160	128	128	159	248	320	496	94	36
40-160/05/S	40	40	100	165	160	160	129	128	155	249	320	528	94	33
40-160/07/X	40	40	100	165	160	160	128	128	159	248	320	496	94	36
40-160/11/P	40	40	100	165	160	160	134	128	174	254	320	563	94	42
40-200/11/P	40	40	110	155	220	220	134	168	174	336	440	563	104	59
40-200/15/P	40	40	110	155	220	220	134	168	174	336	440	563	104	63
40-200/22/P	40	40	110	155	220	220	168	168	214	336	440	597	104	74
40-250/22/P	40	40	110	165	220	220	168	168	214	336	440	597	104	74
40-250/30A/P	40	40	110	165	220	220	168	168	214	336	440	628	104	78
40-250/30/P	40	40	110	165	220	220	168	168	214	336	440	628	104	78
40-250/40/P	40	40	110	165	220	220	168	168	198	336	440	657	104	97
50-125/05/S	50	50	116	155	180	160	129	128	155	247	340	534	96	37
50-125/07/X	50	50	116	155	180	160	128	128	159	246	340	502	96	40
50-125/11/P	50	50	116	155	180	160	134	128	174	252	340	569	96	46
50-160/07/X	50	50	116	155	180	160	128	128	159	246	340	502	96	40
50-160/11/P	50	50	116	155	180	160	134	128	174	252	340	569	96	46
50-160/15A/P	50	50	116	155	180	160	134	128	174	252	340	569	96	50
50-160/15/P	50	50	116	155	180	160	134	128	174	252	340	569	96	50
50-200/15/P	50	50	111	155	220	220	134	168	174	336	440	564	108	66
50-200/22/P	50	50	111	165	220	220	168	168	214	336	440	598	108	77
50-200/30/P	50	50	111	165	220	220	168	168	214	336	440	629	108	81
50-250/30/P	50	50	111	165	220	220	168	168	214	336	440	629	108	81
50-250/40/P	50	50	111	165	220	220	168	168	198	336	440	658	108	100
50-250/55/P	50	50	111	192	220	220	191	168	256	359	440	708	108	111
65-125/07/X	65	65	105	180	190	170	128	148	159	296	360	516	100	52
65-125/11A/P	65	65	105	180	190	170	134	148	174	296	360	583	100	58
65-125/11/P	65	65	105	180	190	170	134	148	174	296	360	583	100	58
65-125/15/P	65	65	105	180	190	170	134	148	174	296	360	583	100	62
65-160/11/P	65	65	105	180	190	170	134	148	174	296	360	583	94	58
65-160/15/P	65	65	105	180	190	170	134	148	174	296	360	583	94	62
65-160/22/P	65	65	105	190	190	170	168	148	214	316	360	617	94	75
65-160/30/P	65	65	105	190	190	170	168	148	214	316	360	648	94	79
65-200/22/P	65	65	118	165	237,5	237,5	168	178	214	347	475	605	105	81
65-200/30A/P	65	65	118	165	237,5	237,5	168	178	214	347	475	636	105	85
65-200/30/P	65	65	118	165	237,5	237,5	168	178	214	347	475	636	105	85
65-200/40/P	65	65	118	165	237,5	237,5	168	178	198	347	475	665	105	104
65-250/40/P	65	65	118	165	237,5	237,5	168	178	214	347	475	681	105	104
65-250/55/P	65	65	118	192	237,5	237,5	191	178	256	360	475	715	105	115
65-250/75/P	65	65	118	192	237,5	237,5	191	178	256	360	475	715	105	119

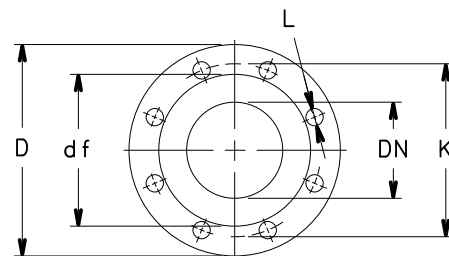
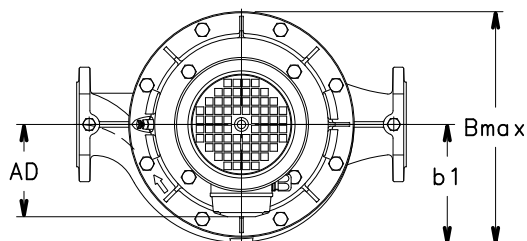
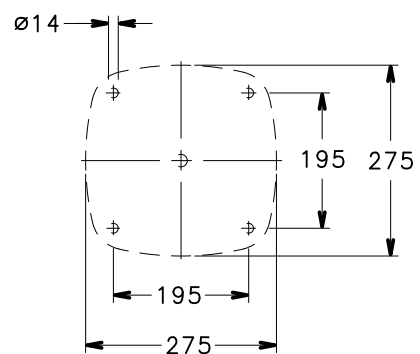
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

LNES-40-50-65_4p60-en_a_td

LNES 80, 100 SERIES
DIMENSIONS AND WEIGHTS AT 60 Hz, 2 POLES



- (1) R 1/8 AIR VALVE
- (2) R 3/8 PRESSURE GAUGE CONNECTOR
- (3) G 3/8 DRAIN



FLANGE

EN1092-2, PN 16 *)					
DN	D	K	C	df	L
32	140	100	18	76	4x19
40	150	110	18	84	4x19
50	165	125	20	99	4x19
65	185	145	20	118	4x19
80	200	160	22	132	8x19
100	230	180	24	157	8x19

*)...VALUE "C" AND "D" MAY VARY FROM STANDARD.

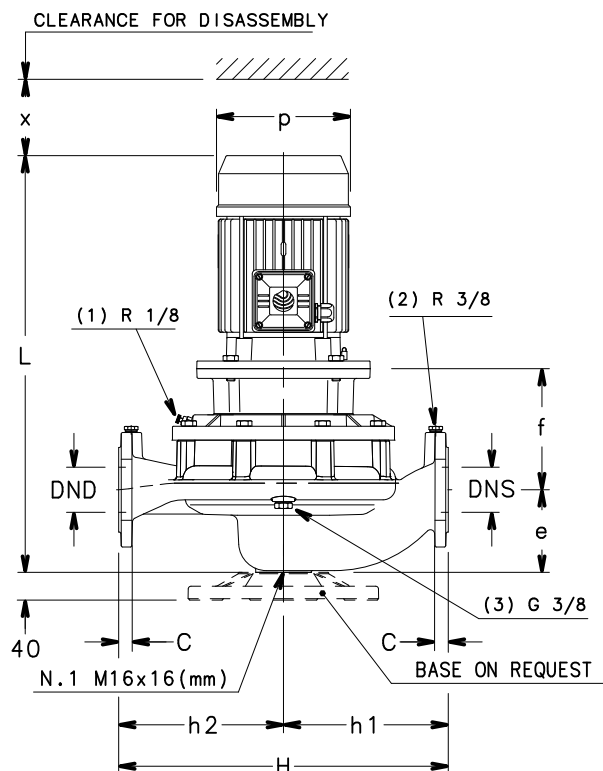
LNES 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 60 Hz, 2 POLES

PUMP TYPE LNES..2	DIMENSIONS (mm)									B max	H	L	x	WEIGHT kg
	DND	DNS	e	f	h1	h2	AD	b1	p					
80-160/150/P	80	80	114	237	215	205	240	168	313	408	420	845	111	162
80-160/185/P	80	80	114	237	215	205	240	168	313	408	420	845	111	171
80-160/220/P	80	80	114	237	215	205	240	168	313	408	420	845	111	182
80-160/300/W	80	80	114	243	215	205	317	168	402	485	420	1014	111	291
80-200/220/P	80	80	132	240	265	235	240	185	313	408	500	866	130	180
80-200/300/W	80	80	132	246	265	235	317	185	402	518	500	1035	130	289
80-200/370/W	80	80	132	246	265	235	317	185	402	518	500	1035	130	304
100-160/185/P	100	100	140	242	260	240	240	179	313	408	500	876	123	181
100-160/220/P	100	100	140	242	260	240	240	179	313	408	500	876	123	192
100-160/300/W	100	100	140	248	260	240	317	179	402	485	500	1045	123	301
100-160/370/W	100	100	140	248	260	240	317	179	402	485	500	1045	123	316

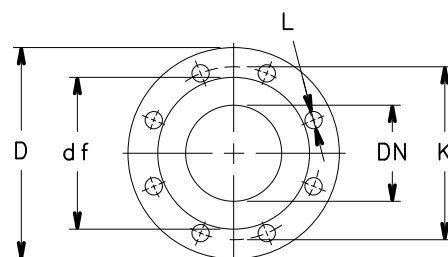
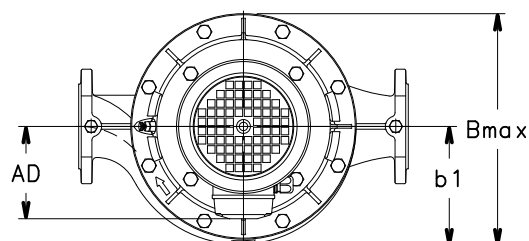
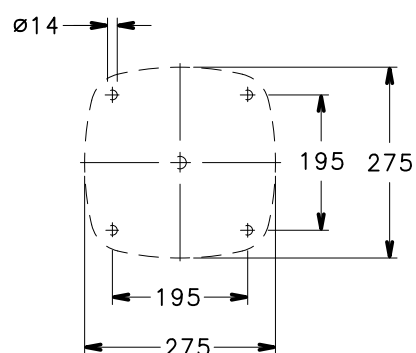
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

LNES-80-100_2p60-en_a_td

LNES 80, 100 SERIES **DIMENSIONS AND WEIGHTS AT 60 Hz, 4 POLES**



- (1) R 1/8 AIR VALVE
- (2) R 3/8 PRESSURE GAUGE CONNECTOR
- (3) G 3/8 DRAIN



FLANGE

EN1092-2, PN 16 *)					
DN	D	K	C	df	L
32	140	100	18	76	4x19
40	150	110	18	84	4x19
50	165	125	20	99	4x19
65	185	145	20	118	4x19
80	200	160	22	132	8x19
100	230	180	24	157	8x19

*)...VALUE "C" AND "D" MAY VARY FROM STANDARD.

LNES 80, 100 SERIES

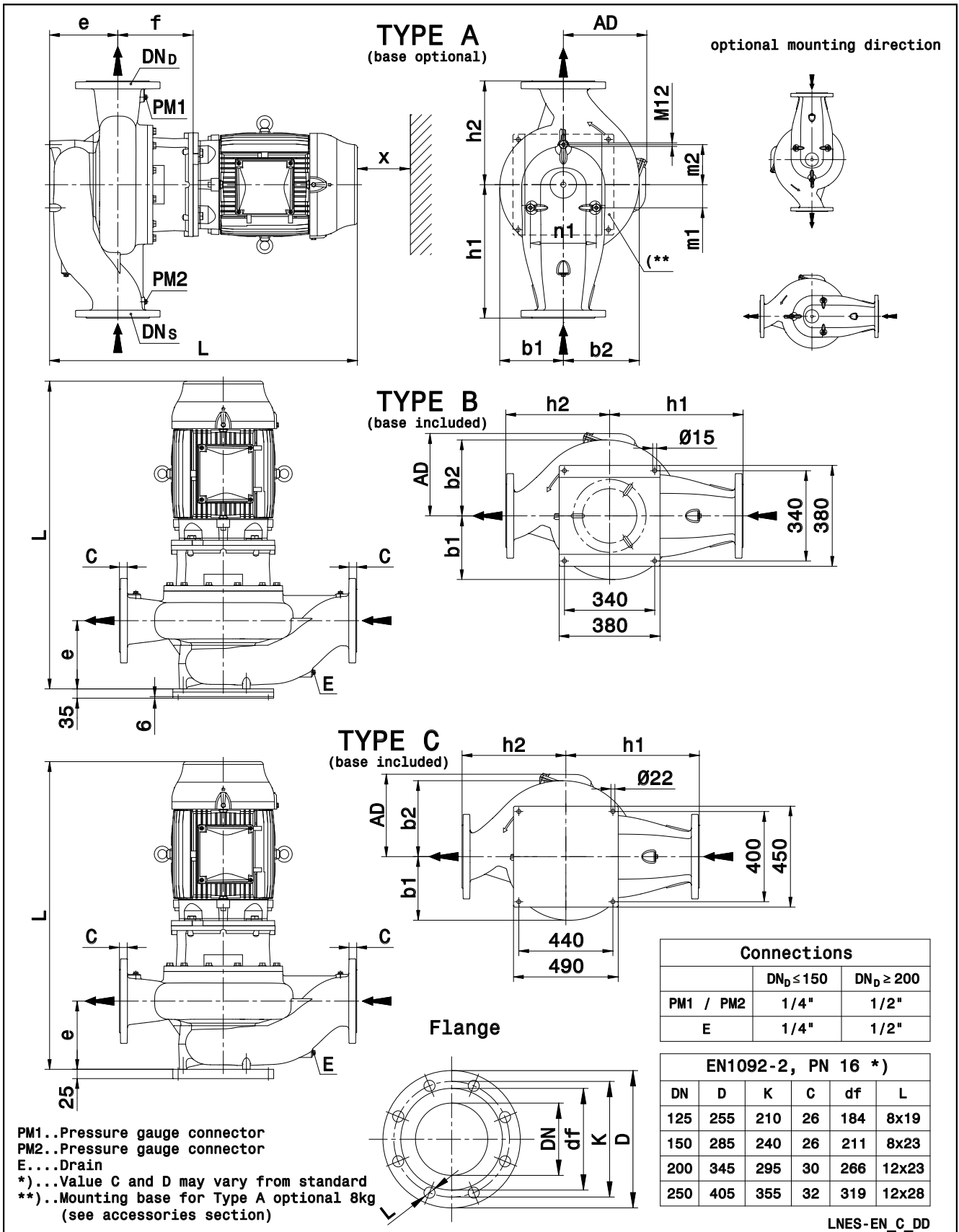
DIMENSIONS AND WEIGHTS AT 60 Hz, 4 POLES

PUMP TYPE LNES..4	DIMENSIONS (mm)									B max	H	L	x	WEIGHT kg
	DND	DNS	e	f	h1	h2	AD	b1	p					
80-160/22A/P	80	80	114	180	215	205	168	168	214	336	420	616	111	85
80-160/22/P	80	80	114	180	215	205	168	168	214	336	420	616	111	85
80-160/30/P	80	80	114	180	215	205	168	168	214	336	420	647	111	89
80-160/40/P	80	80	114	180	215	205	168	168	198	336	420	676	111	108
80-200/30/P	80	80	132	183	265	235	168	185	214	353	500	668	130	87
80-200/40/P	80	80	132	183	265	235	168	185	198	353	500	713	130	106
80-200/55A/P	80	80	132	210	265	235	191	185	256	359	500	747	130	117
80-200/55/P	80	80	132	210	265	235	191	185	256	359	500	747	130	117
80-200/75/P	80	80	132	210	265	235	191	185	256	359	500	747	130	121
80-250/110A/P	80	80	132	240	265	235	240	185	313	408	500	866	130	185
80-250/110/P	80	80	132	240	265	235	240	185	313	408	500	866	130	185
80-315/150/P	80	80	140	245	325	295	240	229	256	439	620	879	140	227
80-315/185/W	80	80	140	245	325	295	279	229	360	439	620	939	140	266
80-315/220/W	80	80	140	245	325	295	279	229	360	439	620	977	140	283
100-160/22/P	100	100	140	185	260	240	168	179	214	347	500	647	123	95
100-160/30/P	100	100	140	185	260	240	168	179	214	347	500	678	123	99
100-160/40/P	100	100	140	185	260	240	168	179	198	347	500	707	123	118
100-160/55/P	100	100	140	212	260	240	191	179	256	359	500	757	123	129
100-200/55/P	100	100	175	210	300	250	191	201	256	371	550	790	152	133
100-200/75/P	100	100	175	210	300	250	191	201	256	371	550	790	152	133
100-200/110/P	100	100	175	240	300	250	240	201	313	410	550	909	152	201
100-250/75/P	100	100	175	210	300	250	191	201	256	371	550	790	152	137
100-250/110A/P	100	100	175	240	300	250	240	201	313	410	550	909	152	201
100-250/110/P	100	100	175	240	300	250	240	201	313	410	550	909	152	201
100-250/150/P	100	100	175	240	300	250	240	201	313	410	550	909	152	204
100-315/185/W	100	100	175	240	360	310	279	244	360	451	670	969	140	281
100-315/220/W	100	100	175	240	360	310	279	244	360	451	670	1007	140	298
100-315/300/W	100	100	175	246	360	310	317	244	402	451	670	1078	140	345

NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

LNES-80-100_4p60-en_a_td

LNES 125, 150, 200, 250 SERIES
DIMENSIONS AND WEIGHTS AT 60 Hz, 4 POLES



LNES 125, 150, 200, 250 SERIES

DIMENSIONS AND WEIGHTS AT 60 Hz, 4 POLES

PUMP TYPE LNES...4	TYPE	DIMENSIONS (mm)														WEIGHT (kg) G
		DND	DNS	e	f	h1	h2	m1	m2	n1	b1	b2	x	AD	L	
125-160/40/P	A	125	125	215	183	340	280	60	105	172	166	212	140	168	796	140
125-160/55/P	A	125	125	215	210	340	280	60	105	172	166	212	140	191	830	144
125-160/75/P	A	125	125	215	210	340	280	60	105	172	166	212	140	191	830	149
125-200/75/P	A	125	125	215	210	340	280	60	105	172	166	212	140	191	830	150
125-200/110/P	B	125	125	215	240	340	280	60	105	172	166	212	140	240	949	222
125-200/150/P	B	125	125	215	240	340	280	60	105	172	166	212	140	240	949	226
125-250/150/P	B	125	125	230	245	450	350	63	110	180	223	275	140	240	969	261
125-250/185/W	B	125	125	230	245	450	350	63	110	180	223	275	140	279	1029	300
125-315/220/W	B	125	125	230	245	450	350	63	110	180	223	275	140	279	1067	334
125-315/300/W	B	125	125	230	251	450	350	63	110	180	223	275	140	317	1138	381
150-200/110/P	B	150	150	230	255	450	350	75	130	212	182	253	140	240	979	255
150-200/150/P	B	150	150	230	255	450	350	75	130	212	182	253	140	240	979	259
150-200/185/W	B	150	150	230	255	450	350	75	130	212	182	253	140	279	1039	298
150-250/220/W	B	150	150	230	240	450	350	75	130	212	193	255	140	279	1062	321
150-250/300/W	B	150	150	230	246	450	350	75	130	212	193	255	140	317	1133	369
150-315/370/W	B	150	150	230	284	450	350	78	135	222	215	257	140	384	1260	530
150-315/450/W	B	150	150	230	284	450	350	78	135	222	215	257	140	384	1260	565
150-315/550/W	B	150	150	230	284	450	350	78	135	222	215	257	140	402	1339	614
200-250/220/W	C	200	200	308	254	475	355	73	145	250	247	305	140	279	1154	416
200-250/300/W	C	200	200	308	254	475	355	73	145	250	247	305	140	317	1219	460
200-250/370/W	C	200	200	308	284	475	355	73	145	250	247	305	140	384	1338	606
200-250/450/W	C	200	200	308	284	475	355	73	145	250	247	305	140	384	1338	641
200-250/550/W	C	200	200	308	284	475	355	73	145	250	247	305	140	402	1417	690
200-315/450/W	C	200	200	260	284	500	400	73	145	250	236	305	140	384	1290	638
200-315/550/W	C	200	200	260	284	500	400	73	145	250	236	305	140	402	1369	688
200-315/750/W	C	200	200	260	284	500	400	73	145	250	236	305	140	472	1475	879
200-315/900/W	C	200	200	260	284	500	400	73	145	250	236	305	140	472	1475	949
250-315/550/W	C	250	250	320	284	550	400	90	180	312	285	351	140	402	1429	767
250-315/750/W	C	250	250	320	284	550	400	90	180	312	285	351	140	472	1535	959
250-315/900/W	C	250	250	320	284	550	400	90	180	312	285	351	140	472	1535	1029

NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

LNES-125-250_4p60-en_a_td

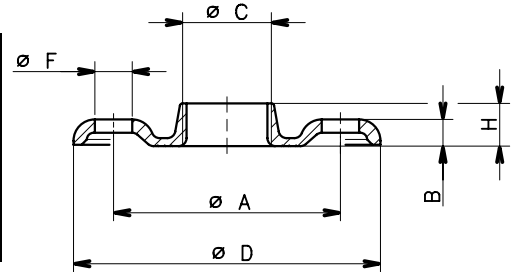
ACCESSORIES

LNE SERIES

ROUND THREADED COUNTERFLANGES KIT ACCORDING TO EN 1092-1

DN	CODE KIT	ø C	DIMENSIONS (mm)				HOLES		
			ø A	B	ø D	H	ø F	N°	PN
40	109398020	Rp 1½	110	14	150	19	18	4	16
50	109398030	Rp 2	125	16	165	24	18	4	16
65	109392710	Rp 2½	145	16	185	23	18	4	16
80	109392720	Rp 3	160	17	200	27	18	8	16
100	109392730	Rp 4	180	18	220	31	18	8	16

Lne-Lnt-ctf-tonde-f-en_a_td



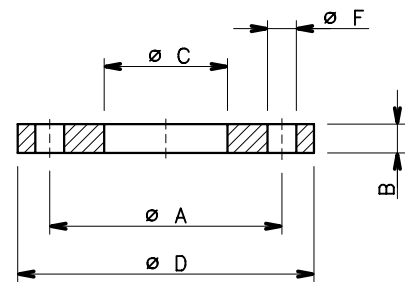
04430_B_DD

LNE SERIES

ROUND WELD COUNTERFLANGES KIT ACCORDING TO EN 1092-1

DN	CODE KIT	ø C	DIMENSIONS (mm)				HOLES		
			ø A	B	ø D	ø F	N°	PN	
40	109390662	49,5	110	18	150	18	4	16	
50	109390692	61,5	125	20	165	18	4	16	
65	109390732	77,5	145	20	185	18	4	16	
80	109390762	90,5	160	20	200	18	8	16	
100	109390772	116	180	22	220	18	8	16	
125	707941320	141,5	210	22	250	18	8	16	
150	707941330	170,5	240	24	285	22	8	16	

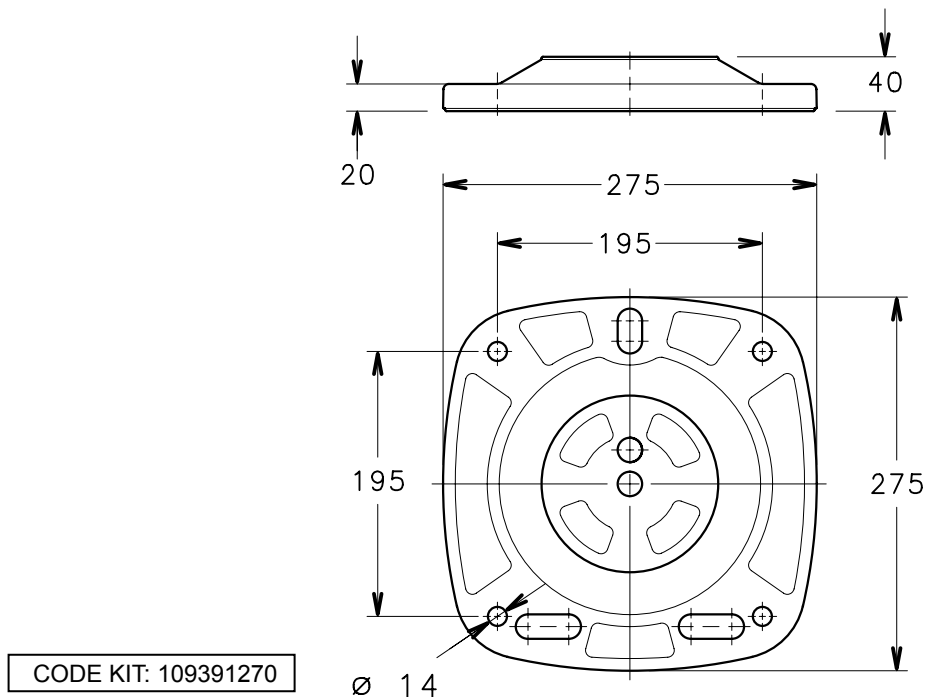
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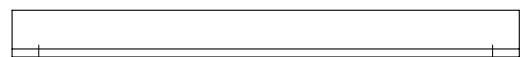
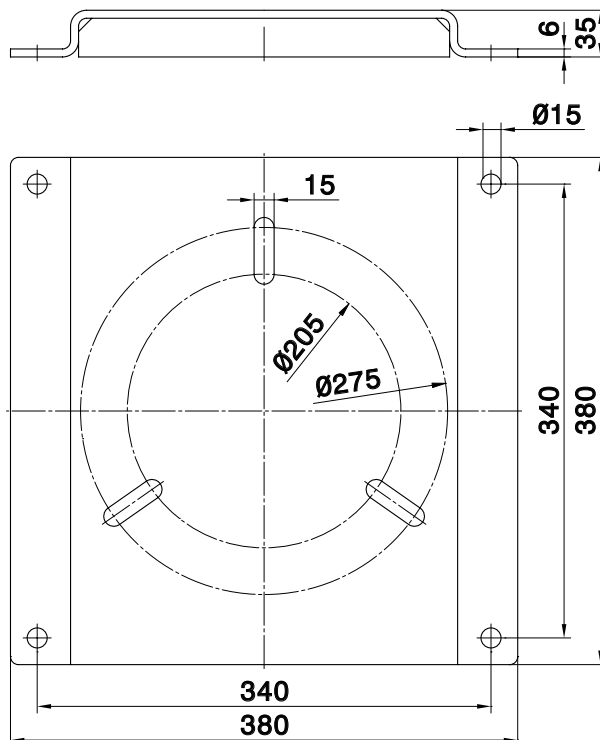
04431_A_DD

LNE 40, 50, 65, 80, 100 SERIES MOUNTING BASE KIT

04803_B_DD



LNE 125, 150 SERIES MOUNTING BASE KIT



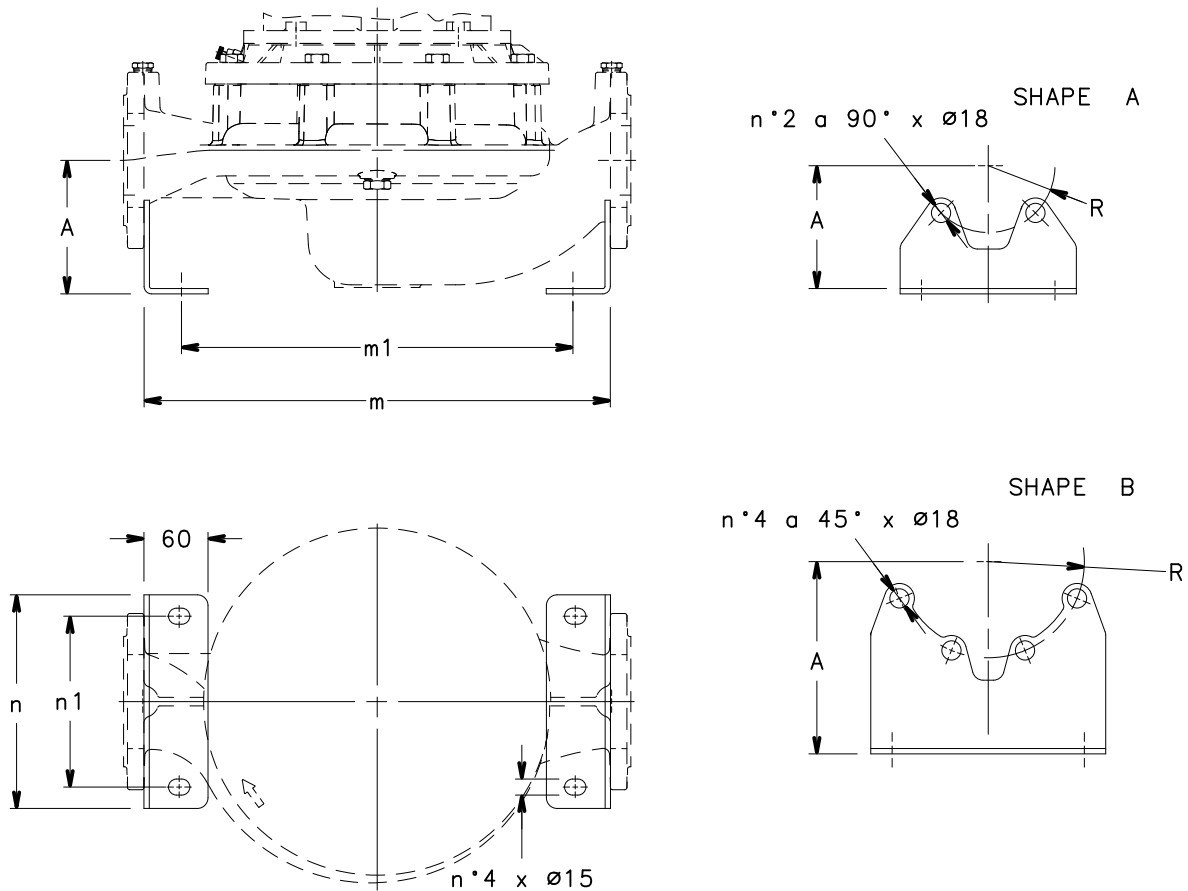
LNES MOUNTING BASE KIT

PUMP TYPE	CODE	STANDARD	OPTION
125-160/22/P4	743660220		X
125-160/30/P4			X
125-160/40/P4			X
125-200/55/P4			X
125-200/75/P4			X
125-250/75/P4			X
125-250/110/P4		X	
125-315/150/P4		X	
125-315/185/W4		X	
125-315/220/W4		X	
125-315/300/W4		X	
150-200/55/P4			X
150-200/75/P4			X
150-200/110/P4		X	
150-250/110/P4		X	
150-250/150/P4		X	
150-315/185/W4		X	
150-315/220/W4		X	
150-315/300/W4		X	
150-315/370/W4		X	

LNES-BASE-EN_B_DD

**LNE 40, 50, 65, 80, 100 SERIES
BRACKETS KIT**

04855-EN_B_DD



CODE KIT	PUMP TYPE		SHAPE	DIMENSIONS (mm)				
	2-POLE	4-POLE		A	m	m1	n	n1
109398650	LNEE 40-125 / LNEE 40-160 LNEE 40-125 / LNEE 40-160	LNEE 40-125 / LNEE 40-160	A	115	284	210	150	110
109398650	LNEE 40-200 / LNEE 40-250 LNEE 40-200 / LNEE 40-250	LNEE 40-200 / LNEE 40-250 LNEE 40-200 / LNEE 40-250	A	115	404	330	150	110
109398660	LNEE 50-125 / LNEE 50-160 LNEE 50-125 / LNEE 50-160	LNEE 50-125 / LNEE 50-160	A	120	300	230	165	125
109398660	LNEE 50-200 / LNEE 50-250 LNEE 50-200 / LNEE 50-250	LNEE 50-200 / LNEE 50-250 LNEE 50-200 / LNEE 50-250	A	120	400	330	165	125
109398670	LNEE 65-125 / LNEE 65-160 LNEE 65-125 / LNEE 65-160	LNEE 65-125 / LNEE 65-160 LNEE 65-160	A	125	320	250	185	145
109398670	LNEE 65-200 / LNEE 65-250 LNEE 65-200 / LNEE 65-250	LNEE 65-200 / LNEE 65-250 LNEE 65-200 / LNEE 65-250	A	125	435	365	185	145
109398680	LNEE 80-125 / LNEE 80-160 LNEE 80-125 / LNEE 80-160	LNEE 80-125 LNEE 80-125	B	135	376	310	200	160
109398680	LNEE 80-200 LNEE 80-200	LNEE 80-200 / LNEE 80-250 LNEE 80-200 / LNEE 80-250	B	135	456	390	200	160
109398690	LNEE 100-160 LNEE 100-160	LNEE 100-160 LNEE 100-160	B	180	452	380	220	180
109398690	LNEE 100-200 LNEE 100-200	LNEE 100-200 / LNEE 100-250 LNEE 100-200 / LNEE 100-250	B	180	502	430	220	180

LNE_staffe-en_a_td

REPORTS AND DECLARATIONS

REPORTS AND DECLARATIONS

i) Test reports

a) Factory Test Report

(not available for all pump types; contact Customer Service in advance)

- Test report compiled at the end of the assembly line, including flow-head performance test (ISO 9906:2012 – Grade 3B) and tightness test.

b) Audit Test Report

- Test report for electric pumps compiled in the test room, comprising flow-head-pump input-pump efficiency performance test (ISO 9906:2012 – Grade 3B)

c) NPSH Test Report

- Test report for electric pumps compiled in the test room, comprising flow-NPSH performance test (ISO 9906:2012 – Grade 3B)

d) Noise Test Report

- Report indicating sound pressure and power measurements (EN ISO 20361, EN ISO 11203, EN ISO 4871)

e) Vibration Test Report

(unavailable for submerged or submersible pumps)

- Report indicating vibration measurements (ISO 10816-1)

ii) Declaration of product conformity with the technical requirements indicated in the order

a) EN 10204:2004 - type 2.1

- does not include test results on supplied or similar products.

b) EN 10204:2004 - type 2.2

- includes test results (materials certificates) on similar products.

iii) Issue of a further EC Declaration of Conformity,

- in addition to the one accompanying the product, it comprises references to European law and the main technical standards (e.g.: MD 2006/42/EC, EMCD 2004/108/EC, ErP 2009/125/EC).

N.B.: if the request is made after receipt of the product, communicate the code (name) and serial number (date + progressive number).

iv) Manufacturer's declaration of conformity

- relative to one of more types of products without indicating specific codes and serial numbers.

v) Other certificates and/or documentation on request

- subject to availability or feasibility.

vi) Duplication of certificates and/or documentation on request

- subject to availability or feasibility.

TECHNICAL APPENDIX

NPSH

The minimum operating values that can be reached at the pump suction end are limited by the onset of cavitation.

Cavitation is the formation of vapour-filled cavities within liquids where the pressure is locally reduced to a critical value, or where the local pressure is equal to, or just below the vapour pressure of the liquid.

The vapour-filled cavities flow with the current and when they reach a higher pressure area the vapour contained in the cavities condenses. The cavities collide, generating pressure waves that are transmitted to the walls. These, being subjected to stress cycles, gradually become deformed and yield due to fatigue. This phenomenon, characterized by a metallic noise produced by the hammering on the pipe walls, is called incipient cavitation.

The damage caused by cavitation may be magnified by electrochemical corrosion and a local rise in temperature due to the plastic deformation of the walls. The materials that offer the highest resistance to heat and corrosion are alloy steels, especially austenitic steel. The conditions that trigger cavitation may be assessed by calculating the total net suction head, referred to in technical literature with the acronym NPSH (Net Positive Suction Head).

The NPSH represents the total energy (expressed in m.) of the liquid measured at suction under conditions of incipient cavitation, excluding the vapour pressure (expressed in m.) that the liquid has at the pump inlet.

To find the static height h_z at which to install the machine under safe conditions, the following formula must be verified:

$$h_p + h_z \geq (NPSH_r + 0.5) + h_f + h_{pv} \quad (1)$$

where:

h_p is the absolute pressure applied to the free liquid surface in the suction tank, expressed in m. of liquid; h_p is the quotient between the barometric pressure and the specific weight of the liquid.

h_z is the suction lift between the pump axis and the free liquid surface in the suction tank, expressed in m.; h_z is negative when the liquid level is lower than the pump axis.

h_f is the flow resistance in the suction line and its accessories, such as: fittings, foot valve, gate valve, elbows, etc.

h_{pv} is the vapour pressure of the liquid at the operating temperature, expressed in m. of liquid. h_{pv} is the quotient between the P_v vapour pressure and the liquid's specific weight.

0,5 is the safety factor.

The maximum possible suction head for installation depends on the value of the atmospheric pressure (i.e. the elevation above sea level at which the pump is installed) and the temperature of the liquid.

To help the user, with reference to water temperature (4° C) and to the elevation above sea level, the following tables show the drop in hydraulic pressure head in relation to the elevation above sea level, and the suction loss in relation to temperature.

Water temperature (°C)	20	40	60	80	90	110	120
Suction loss (m)	0,2	0,7	2,0	5,0	7,4	15,4	21,5

Elevation above sea level (m)	500	1000	1500	2000	2500	3000
Suction loss (m)	0,55	1,1	1,65	2,2	2,75	3,3

Friction loss is shown in the tables Flow Resistance of this catalogue. To reduce it to a minimum, especially in cases of high suction head (over 4-5 m.) or within the operating limits with high flow rates, we recommend using a suction line having a larger diameter than that of the pump's suction port. It is always a good idea to position the pump as close as possible to the liquid to be pumped.

Make the following calculation:

Liquid: water at ~15°C $\gamma = 1 \text{ kg/dm}^3$

Flow rate required: 25 m³/h

Head for required delivery: 70 m.

Suction lift: 3,5 m.

The selection is an 33SV3G075T pump whose NPSH required value is, at 25 m³/h, of 2 m.

For water at 15 °C

$$h_p = P_a / \gamma = 10,33\text{m}, h_{pv} = P_v / \gamma = 0,174\text{m} (0,01701 \text{ bar})$$

The H_f flow resistance in the suction line with foot valves is ~ 1,2 m.

By substituting the parameters in formula (1) with the numeric values above, we have:

$$10,33 + (-3,5) \geq (2 + 0,5) + 1,2 + 0,17$$

from which we have: 6,8 > 3,9

The relation is therefore verified.

VAPOUR PRESSURE

VAPOUR PRESSURE p_s AND ρ DENSITY OF WATER TABLE

t °C	T K	p_s bar	ρ kg/dm ³	t °C	T K	p_s bar	ρ kg/dm ³	t °C	T K	p_s bar	ρ kg/dm ³
0	273,15	0,00611	0,9998	55	328,15	0,15741	0,9857	120	393,15	1,9854	0,9429
1	274,15	0,00657	0,9999	56	329,15	0,16511	0,9852	122	395,15	2,1145	0,9412
2	275,15	0,00706	0,9999	57	330,15	0,17313	0,9846	124	397,15	2,2504	0,9396
3	276,15	0,00758	0,9999	58	331,15	0,18147	0,9842	126	399,15	2,3933	0,9379
4	277,15	0,00813	1,0000	59	332,15	0,19016	0,9837	128	401,15	2,5435	0,9362
5	278,15	0,00872	1,0000	60	333,15	0,1992	0,9832	130	403,15	2,7013	0,9346
6	279,15	0,00935	1,0000	61	334,15	0,2086	0,9826	132	405,15	2,867	0,9328
7	280,15	0,01001	0,9999	62	335,15	0,2184	0,9821	134	407,15	3,041	0,9311
8	281,15	0,01072	0,9999	63	336,15	0,2286	0,9816	136	409,15	3,223	0,9294
9	282,15	0,01147	0,9998	64	337,15	0,2391	0,9811	138	411,15	3,414	0,9276
10	283,15	0,01227	0,9997	65	338,15	0,2501	0,9805	140	413,15	3,614	0,9258
11	284,15	0,01312	0,9997	66	339,15	0,2615	0,9799	145	418,15	4,155	0,9214
12	285,15	0,01401	0,9996	67	340,15	0,2733	0,9793	155	428,15	5,433	0,9121
13	286,15	0,01497	0,9994	68	341,15	0,2856	0,9788	160	433,15	6,181	0,9073
14	287,15	0,01597	0,9993	69	342,15	0,2984	0,9782	165	438,15	7,008	0,9024
15	288,15	0,01704	0,9992	70	343,15	0,3116	0,9777	170	443,15	7,920	0,8973
16	289,15	0,01817	0,9990	71	344,15	0,3253	0,9770	175	448,15	8,924	0,8921
17	290,15	0,01936	0,9988	72	345,15	0,3396	0,9765	180	453,15	10,027	0,8869
18	291,15	0,02062	0,9987	73	346,15	0,3543	0,9760	185	458,15	11,233	0,8815
19	292,15	0,02196	0,9985	74	347,15	0,3696	0,9753	190	463,15	12,551	0,8760
20	293,15	0,02337	0,9983	75	348,15	0,3855	0,9748	195	468,15	13,987	0,8704
21	294,15	0,24850	0,9981	76	349,15	0,4019	0,9741	200	473,15	15,550	0,8647
22	295,15	0,02642	0,9978	77	350,15	0,4189	0,9735	205	478,15	17,243	0,8588
23	296,15	0,02808	0,9976	78	351,15	0,4365	0,9729	210	483,15	19,077	0,8528
24	297,15	0,02982	0,9974	79	352,15	0,4547	0,9723	215	488,15	21,060	0,8467
25	298,15	0,03166	0,9971	80	353,15	0,4736	0,9716	220	493,15	23,198	0,8403
26	299,15	0,03360	0,9968	81	354,15	0,4931	0,9710	225	498,15	25,501	0,8339
27	300,15	0,03564	0,9966	82	355,15	0,5133	0,9704	230	503,15	27,976	0,8273
28	301,15	0,03778	0,9963	83	356,15	0,5342	0,9697	235	508,15	30,632	0,8205
29	302,15	0,04004	0,9960	84	357,15	0,5557	0,9691	240	513,15	33,478	0,8136
30	303,15	0,04241	0,9957	85	358,15	0,5780	0,9684	245	518,15	36,523	0,8065
31	304,15	0,04491	0,9954	86	359,15	0,6011	0,9678	250	523,15	39,776	0,7992
32	305,15	0,04753	0,9951	87	360,15	0,6249	0,9671	255	528,15	43,246	0,7916
33	306,15	0,05029	0,9947	88	361,15	0,6495	0,9665	260	533,15	46,943	0,7839
34	307,15	0,05318	0,9944	89	362,15	0,6749	0,9658	265	538,15	50,877	0,7759
35	308,15	0,05622	0,9940	90	363,15	0,7011	0,9652	270	543,15	55,058	0,7678
36	309,15	0,05940	0,9937	91	364,15	0,7281	0,9644	275	548,15	59,496	0,7593
37	310,15	0,06274	0,9933	92	365,15	0,7561	0,9638	280	553,15	64,202	0,7505
38	311,15	0,06624	0,9930	93	366,15	0,7849	0,9630	285	558,15	69,186	0,7415
39	312,15	0,06991	0,9927	94	367,15	0,8146	0,9624	290	563,15	74,461	0,7321
40	313,15	0,07375	0,9923	95	368,15	0,8453	0,9616	295	568,15	80,037	0,7223
41	314,15	0,07777	0,9919	96	369,15	0,8769	0,9610	300	573,15	85,927	0,7122
42	315,15	0,08198	0,9915	97	370,15	0,9094	0,9602	305	578,15	92,144	0,7017
43	316,15	0,09639	0,9911	98	371,15	0,9430	0,9596	310	583,15	98,70	0,6906
44	317,15	0,09100	0,9907	99	372,15	0,9776	0,9586	315	588,15	105,61	0,6791
45	318,15	0,09582	0,9902	100	373,15	1,0133	0,9581	320	593,15	112,89	0,6669
46	319,15	0,10086	0,9898	102	375,15	1,0878	0,9567	325	598,15	120,56	0,6541
47	320,15	0,10612	0,9894	104	377,15	1,1668	0,9552	330	603,15	128,63	0,6404
48	321,15	0,11162	0,9889	106	379,15	1,2504	0,9537	340	613,15	146,05	0,6102
49	322,15	0,11736	0,9884	108	381,15	1,3390	0,9522	350	623,15	165,35	0,5743
50	323,15	0,12335	0,9880	110	383,15	1,4327	0,9507	360	633,15	186,75	0,5275
51	324,15	0,12961	0,9876	112	385,15	1,5316	0,9491	370	643,15	210,54	0,4518
52	325,15	0,13613	0,9871	114	387,15	1,6362	0,9476	374,15	647,30	221,20	0,3154
53	326,15	0,14293	0,9862	116	389,15	1,7465	0,9460				
54	327,15	0,15002	0,9862	118	391,15	1,8628	0,9445				

G-at_npsb_sc

TABLE OF FLOW RESISTANCE IN 100 m OF STRAIGHT CAST IRON PIPELINE (HAZEN-WILLIAMS FORMULA C=100)

FLOW RATE		NOMINAL DIAMETER in mm and inches																		
m³/h	l/min		15 1/2"	20 3/4"	25 1"	32 1 1/4"	40 1 1/2"	50 2	65 2 1/2"	80 3"	100 4"	125 5"	150 6"	175 7"	200 8"	250 10"	300 12"	350 14"	400 16"	
0,6	10	v	0,94	0,53	0,34	0,21	0,13			The hr values must be multiplied by: 0,71 for galvanized or painted steel pipes 0,54 for stainless steel or copper pipes 0,47 for PVC or PE pipes										
		hr	16	3,94	1,33	0,40	0,13													
0,9	15	v	1,42	0,80	0,51	0,31	0,20													
		hr	33,9	8,35	2,82	0,85	0,29													
1,2	20	v	1,89	1,06	0,68	0,41	0,27													0,17
		hr	57,7	14,21	4,79	1,44	0,49													0,16
1,5	25	v	2,36	1,33	0,85	0,52	0,33													0,21
		hr	87,2	21,5	7,24	2,18	0,73													0,25
1,8	30	v	2,83	1,59	1,02	0,62	0,40													0,25
		hr	122	30,1	10,1	3,05	1,03													0,35
2,1	35	v	3,30	1,86	1,19	0,73	0,46	0,30												
		hr	162	40,0	13,5	4,06	1,37	0,46												
2,4	40	v		2,12	1,36	0,83	0,53	0,34	0,20											
		hr		51,2	17,3	5,19	1,75	0,59	0,16											
3	50	v		2,65	1,70	1,04	0,66	0,42	0,25											
		hr		77,4	26,1	7,85	2,65	0,89	0,25											
3,6	60	v		3,18	2,04	1,24	0,80	0,51	0,30											
		hr		108	36,6	11,0	3,71	1,25	0,35											
4,2	70	v		3,72	2,38	1,45	0,93	0,59	0,35											
		hr		144	48,7	14,6	4,93	1,66	0,46											
4,8	80	v		4,25	2,72	1,66	1,06	0,68	0,40											
		hr		185	62,3	18,7	6,32	2,13	0,59											
5,4	90	v			3,06	1,87	1,19	0,76	0,45	0,30										
		hr			77,5	23,3	7,85	2,65	0,74	0,27										
6	100	v			3,40	2,07	1,33	0,85	0,50	0,33										
		hr			94,1	28,3	9,54	3,22	0,90	0,33										
7,5	125	v			4,25	2,59	1,66	1,06	0,63	0,41										
		hr			142	42,8	14,4	4,86	1,36	0,49										
9	150	v				3,11	1,99	1,27	0,75	0,50	0,32									
		hr				59,9	20,2	6,82	1,90	0,69	0,23									
10,5	175	v				3,63	2,32	1,49	0,88	0,58	0,37									
		hr				79,7	26,9	9,07	2,53	0,92	0,31									
12	200	v				4,15	2,65	1,70	1,01	0,66	0,42									
		hr				102	34,4	11,6	3,23	1,18	0,40									
15	250	v				5,18	3,32	2,12	1,26	0,83	0,53	0,34								
		hr				154	52,0	17,5	4,89	1,78	0,60	0,20								
18	300	v				3,98	2,55	1,51	1,00	0,64	0,41									
		hr				72,8	24,6	6,85	2,49	0,84	0,28									
24	400	v				5,31	3,40	2,01	1,33	0,85	0,54	0,38								
		hr				124	41,8	11,66	4,24	1,43	0,48	0,20								
30	500	v				6,63	4,25	2,51	1,66	1,06	0,68	0,47								
		hr				187	63,2	17,6	6,41	2,16	0,73	0,30								
36	600	v					5,10	3,02	1,99	1,27	0,82	0,57	0,42							
		hr					88,6	24,7	8,98	3,03	1,02	0,42	0,20							
42	700	v					5,94	3,52	2,32	1,49	0,95	0,66	0,49							
		hr					118	32,8	11,9	4,03	1,36	0,56	0,26							
48	800	v					6,79	4,02	2,65	1,70	1,09	0,75	0,55							
		hr					151	42,0	15,3	5,16	1,74	0,72	0,34							
54	900	v					7,64	4,52	2,99	1,91	1,22	0,85	0,62							
		hr					188	52,3	19,0	6,41	2,16	0,89	0,42							
60	1000	v						5,03	3,32	2,12	1,36	0,94	0,69	0,53						
		hr						63,5	23,1	7,79	2,63	1,08	0,51	0,27						
75	1250	v						6,28	4,15	2,65	1,70	1,18	0,87	0,66						
		hr						96,0	34,9	11,8	3,97	1,63	0,77	0,40						
90	1500	v						7,54	4,98	3,18	2,04	1,42	1,04	0,80						
		hr						134	48,9	16,5	5,57	2,29	1,08	0,56						
105	1750	v						8,79	5,81	3,72	2,38	1,65	1,21	0,93						
		hr						179	65,1	21,9	7,40	3,05	1,44	0,75						
120	2000	v							6,63	4,25	2,72	1,89	1,39	1,06	0,68					
		hr							83,3	28,1	9,48	3,90	1,84	0,96	0,32					
150	2500	v							8,29	5,31	3,40	2,36	1,73	1,33	0,85					
		hr							126	42,5	14,3	5,89	2,78	1,45	0,49					
180	3000	v								6,37	4,08	2,83	2,08	1,59	1,02	0,71				
		hr								59,5	20,1	8,26	3,90	2,03	0,69	0,28				
210	3500	v								7,43	4,76	3,30	2,43	1,86	1,19	0,83				
		hr								79,1	26,7	11,0	5,18	2,71	0,91	0,38				
240	4000	v								8,49	5,44	3,77	2,77	2,12	1,36	0,94				
		hr								101	34,2	14,1	6,64	3,46	1,17	0,48				
300	5000	v									6,79	4,72	3,47	2,65	1,70	1,18				
		hr									51,6	21,2	10,0	5,23	1,77	0,73				
360	6000	v									8,15	5,66	4,16	3,18	2,04	1,42				
		hr									72,3	29,8	14,1	7,33	2,47	1,02				
420	7000	v										6,61	4,85	3,72	2,38	1,65	1,21			
		hr										39,6	18,7	9,75	3,29	1,35	0,64			
480	8000	v										7,55	5,55	4,25	2,72	1,89	1,39			
		hr										50,7	23,9	12,49	4,21	1,73	0,82			
540	9000	v										8,49	6,24	4,78	3,06	2,12	1,56	1,19		
		hr										63,0	29,8	15,5	5,24	2,16	1,02	0,53		
600	10000	v											6,93	5,31	3,40	2,36	1,73	1,33		
		hr											36,2	18,9	6,36	2,62	1,24	0,65		

G-at-pot-en_a_th

hr = flow resistance for 100 m of straight pipeline (m)

V = water speed (m/s)

FLOW RESISTANCE

TABLE OF FLOW RESISTANCE IN BENDS, VALVES AND GATES

The flow resistance is calculated using the equivalent pipeline length method according to the table below:

ACCESSORY TYPE	DN											
	25	32	40	50	65	80	100	125	150	200	250	300
	Equivalent pipeline length (m)											
45° bend	0,2	0,2	0,4	0,4	0,6	0,6	0,9	1,1	1,5	1,9	2,4	2,8
90° bend	0,4	0,6	0,9	1,1	1,3	1,5	2,1	2,6	3,0	3,9	4,7	5,8
90° smooth bend	0,4	0,4	0,4	0,6	0,9	1,1	1,3	1,7	1,9	2,8	3,4	3,9
Union tee or cross	1,1	1,3	1,7	2,1	2,6	3,2	4,3	5,3	6,4	7,5	10,7	12,8
Gate	-	-	-	0,2	0,2	0,2	0,4	0,4	0,6	0,9	1,1	1,3
Non return valve	1,1	1,5	1,9	2,4	3,0	3,4	4,7	5,9	7,4	9,6	11,8	13,9

G-a-pcv-en_a_th

The table is valid for the Hazen Williams coefficient $C=100$ (cast iron pipework);

for steel pipework, multiply the values by 1,41;

for stainless steel, copper and coated cast iron pipework, multiply the values by 1,85;

When the **equivalent pipeline length** has been determined, the flow resistance is obtained from the table of flow resistance.

The values given are guideline values which are bound to vary slightly according to the model, especially for gate valves and non-return valves, for which it is a good idea to check the values supplied by manufacturers.

VOLUMETRIC CAPACITY

Litres per minute l/min	Cubic metres per hour m ³ /h	Cubic feet per hour ft ³ /h	Cubic feet per minute ft ³ /min	Imperial gallon per minute Imp. gal/min	U.S. gallon per minute US gal/min
1,0000	0,0600	2,1189	0,0353	0,2200	0,2642
16,6667	1,0000	35,3147	0,5886	3,6662	4,4029
0,4719	0,0283	1,0000	0,0167	0,1038	0,1247
28,3168	1,6990	60,0000	1,0000	6,2288	7,4805
4,5461	0,2728	9,6326	0,1605	1,0000	1,2009
3,7854	0,2271	8,0208	0,1337	0,8327	1,0000

PRESSURE AND HEAD

Newton per square metre N/m ²	kilo Pascal kPa	bar bar	Pound force per square inch psi	Metre of water m H ₂ O	Millimetre of mercury mm Hg
1,0000	0,0010	1 x 10 ⁻⁵	1,45 x 10 ⁻⁴	1,02 x 10 ⁻⁴	0,0075
1 000,0000	1,0000	0,0100	0,1450	0,1020	7,5006
1 x 10 ⁵	100,0000	1,0000	14,5038	10,1972	750,0638
6 894,7570	6,8948	0,0689	1,0000	0,7031	51,7151
9 806,6500	9,8067	0,0981	1,4223	1,0000	73,5561
133,3220	0,1333	0,0013	0,0193	0,0136	1,0000

LENGTH

Millimetre mm	Centimetre cm	Metre m	Inch in	Foot ft	Yard yd
1,0000	0,1000	0,0010	0,0394	0,0033	0,0011
10,0000	1,0000	0,0100	0,3937	0,0328	0,0109
1 000,0000	100,0000	1,0000	39,3701	3,2808	1,0936
25,4000	2,5400	0,0254	1,0000	0,0833	0,0278
304,8000	30,4800	0,3048	12,0000	1,0000	0,3333
914,4000	91,4400	0,9144	36,0000	3,0000	1,0000

VOLUME

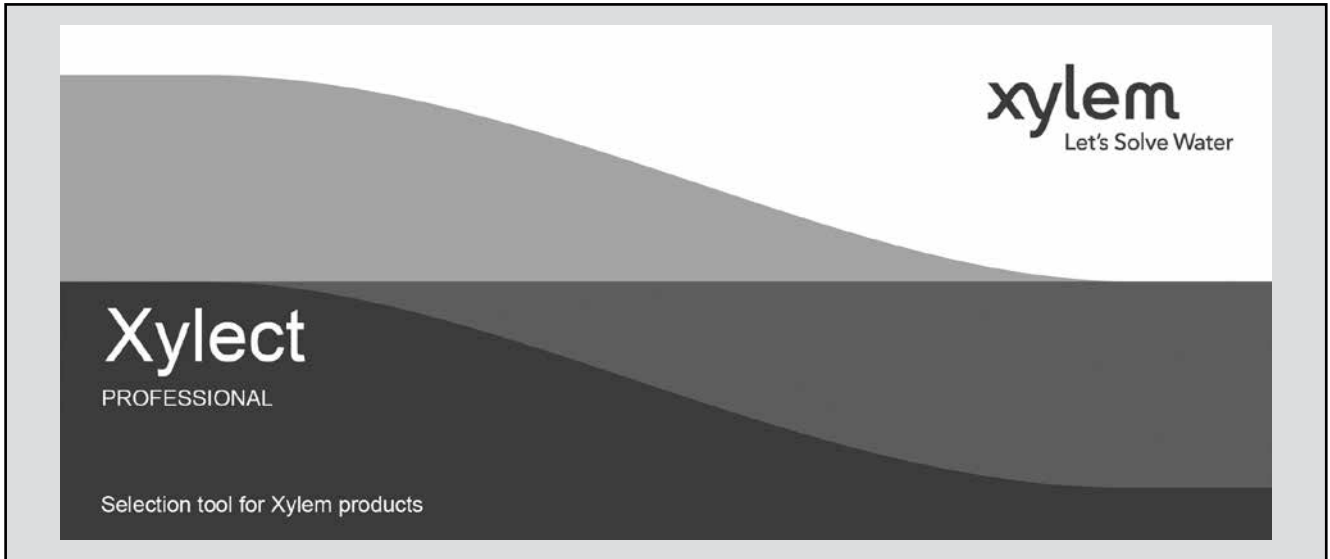
Cubic metre m ³	Litre L	Millilitre ml	Imperial gallon imp. gal.	U.S. gallon US gal.	Cubic foot ft ³
1,0000	1 000,0000	1 x 10 ⁶	219,9694	264,1720	35,3147
0,0010	1,0000	1 000,0000	0,2200	0,2642	0,0353
1 x 10 ⁻⁶	0,0010	1,0000	2,2 x 10 ⁻⁴	2,642 x 10 ⁻⁴	3,53 x 10 ⁻⁵
0,0045	4,5461	4 546,0870	1,0000	1,2009	0,1605
0,0038	3,7854	3 785,4120	0,8327	1,0000	0,1337
0,0283	28,3168	28 316,8466	6,2288	7,4805	1,0000

TEMPERATURE

Water	Kelvin K	Celsius °C	Fahrenheit °F	$^{\circ}\text{F} = ^{\circ}\text{C} \times \frac{9}{5} + 32$ $^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times \frac{5}{9}$
icing	273,1500	0,0000	32,0000	
boiling	373,1500	100,0000	212,0000	

G-at_pp-en_b_sc

FURTHER PRODUCT SELECTION AND DOCUMENTATION Xylect™



Xylect™ is pump solution selection software with an extensive online database of product information across the entire Lowara range of pumps and related products, with multiple search options and helpful project management facilities. The system holds up-to-date product information on thousands of products and accessories.

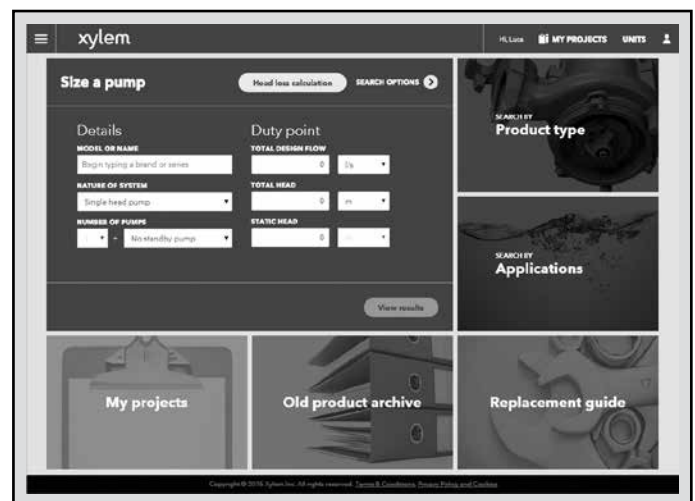
The possibility to search by applications and the detailed information output given makes it easy to make the optimal selection without having detailed knowledge about the Lowara products.

The search can be made by:

- Application
- Product type
- Duty point

Xylect™ gives a detailed output:

- List with search results
- Performance curves (flow, head, power, efficiency, NPSH)
- Motor data
- Dimensional drawings
- Options
- Data sheet printouts
- Document downloads incl dxf files



The search by application guides users not familiar with the product range to the right choice.

FURTHER PRODUCT SELECTION AND DOCUMENTATION Xylect™



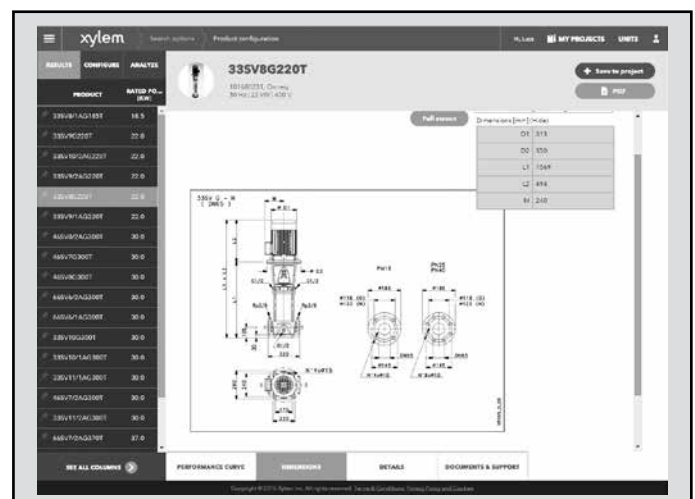
The detailed output makes it easy to select the optimal pump from the given alternatives.

The best way to work with Xylect™ is to create a personal account. This makes it possible to:

- Set own standard units
- Create and save projects
- Share projects with other Xylect™ users

Every user has a My Xylect space, where all projects are saved.

For more information about Xylect™ please contact our sales network or visit www.xylect.com.



Dimensional drawings appear on the screen and can be downloaded in dxf format.

Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

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For information and technical support



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