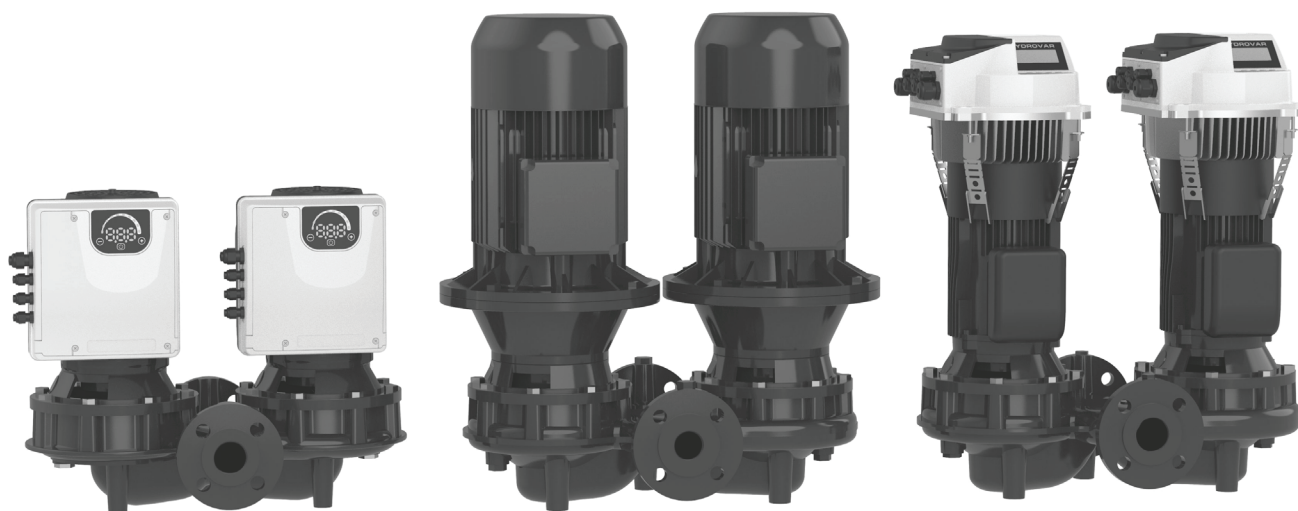




e-LNT Series

TWIN IN-LINE ELECTRIC PUMPS EQUIPPED WITH IE2, IE3 MOTORS
(REG. (EU) 2019/1781)

ErP 2009/125/EC

Xylect

Xylect is a pump solution software with an extensive online database of product information across the entire 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.

Xylect can be available:

On the website – www.xylect.com



For more information, please, see pages [117-118](#).

Ecodesign Directive 2009/125/CE

The **Directive 2005/32/EC** on energy-using products (**EuP**) and the subsequent **Directive 2009/125/EC** on energy-related products (**ErP**) established the ecodesign requirements for products to reduce their energy consumption and consequently their environmental impact.

These requirements apply to products placed and used in the European Economic Area (European Union plus Iceland, Liechtenstein and Norway) as a stand-alone unit or as integrated parts in other products.

The table shows the Regulations that define the requirements for Lowara products:

Product	Regulations	From	Target
Pumps*	(EU) N. 547/2012	1 January 2015	MEI ≥ 0,4
Circulators**	(EC) N. 641/2009, (EU) N. 622/2012 e (EU) 2019/1781	1 August 2015	EEI < 0,23
Electric motors	(EU) 2019/1781 e 2021/341	1 July 2021	IE2 : three-phase motors with a rated output ≥ 0,12 and < 0,749 kW IE3 : three-phase motors with a rated output ≥ 0,75 and < 1000 kW
Variable speed drives (VSD)***	(EU) 2019/1781 e 2021/341	1 July 2021	IE2

* some types of pump, used for pumping clean water.

** circulators with a rated hydraulic output power of between 1 and 2500 W, designed for use in heating systems or in secondary circuits of cooling distribution systems.

*** variable speed drives with three-phase input and rated output power from 0,12 kW up to 1000 kW, rated for operating with motor included in the same regulations.

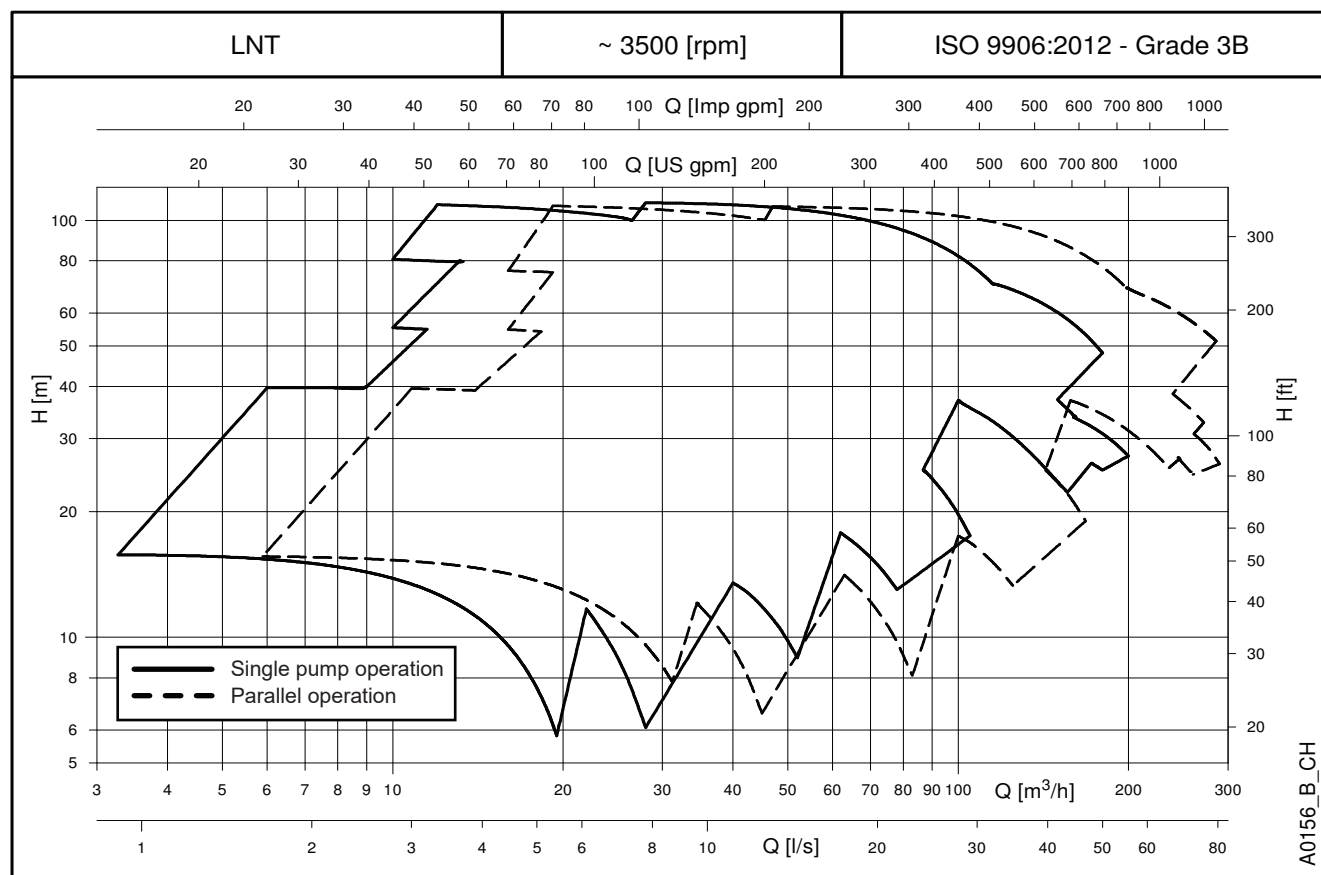
From 1 July 2023 it will be introduced additional requirements.

CONTENTS

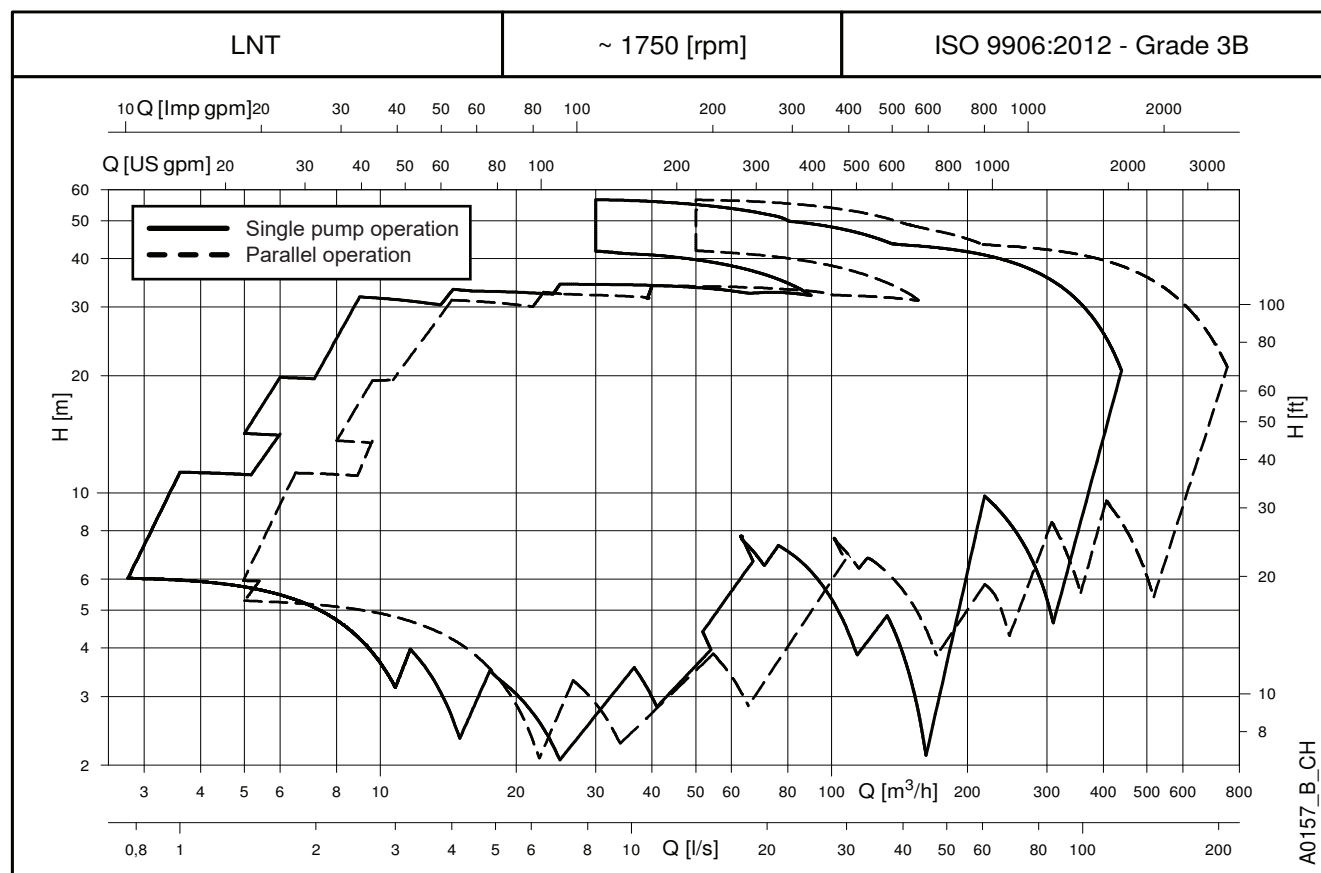
GENERAL INTRODUCTION	5
APPLICATIONS & BENEFITS	6
IDENTIFICATION CODE	8
RATING PLATE	9
LIST OF MODELS AT 60 Hz, 2 POLES	10
LIST OF MODELS AT 60 Hz, 4 POLES	11
ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS	12
MECHANICAL SEALS	17
MOTORS (ErP 2009/125/EC)	18
HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 2 POLES	27
HYDRAULIC PERFORMANCE TABLE AT 60 Hz, 2 POLES	28
HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 4 POLES	33
HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 4 POLES	34
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES	42
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES	58
DIMENSIONS AND WEIGHTS	87
FORCES AND MOMENTS AT PUMP FLANGES	102
ACCESSORIES	105
REPORTS AND DECLARATIONS	109
TECHNICAL APPENDIX	111

e-LNT SERIES

HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 2 POLES



HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 4 POLES



e-LNT SERIES

GENERAL INTRODUCTION

The new **Lowara e-LNT 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-LNT 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-LNT Series** is a dual volute centrifugal pump with in-line suction and delivery flanges; both volutes are fitted with closed impellers linked by an automatic changeover valve. The two pumps can operate separately or in parallel.

The **e-LNT Series** has a "Back pull-out" design (impeller, adapter, and motor can be extracted without disconnecting the pump body from the piping system). The dual volutes provides system redundancy; and one volute can be serviced while the other remains operational.

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 IE2/IE3 efficiency motors; and are available in the following constructions:

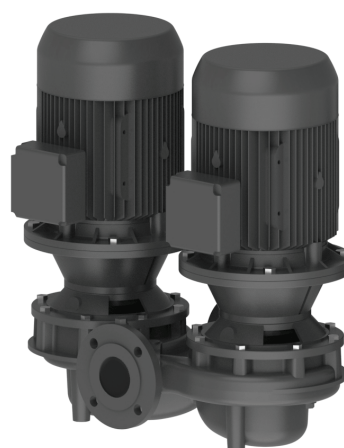
Extended shaft

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



Stub shaft

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



Hydraulic specifications

- Maximum delivery
 - one pump running:
 - 200** m³/h (2-pole range)
 - 439** m³/h (4-pole range)
 - two pump running:
 - 290** m³/h (2-pole range)
 - 754** m³/h (4-pole range)
- Maximum head: **110** m (2-pole range).
57 m (4-pole 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 BQ7EGG-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 BQ7EGG-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.
- **IE2** efficiency level (three-phase 0,12-0,749 kW), **IE3** efficiency level (three-phase 0,75 to 375 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 or 50 °C, depending on model and power.

Note

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

e-LNT SERIES COMMERCIAL BUILDING SERVICES (CBS) APPLICATIONS & BENEFITS

Applications

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

The Lowara e-LNT 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.



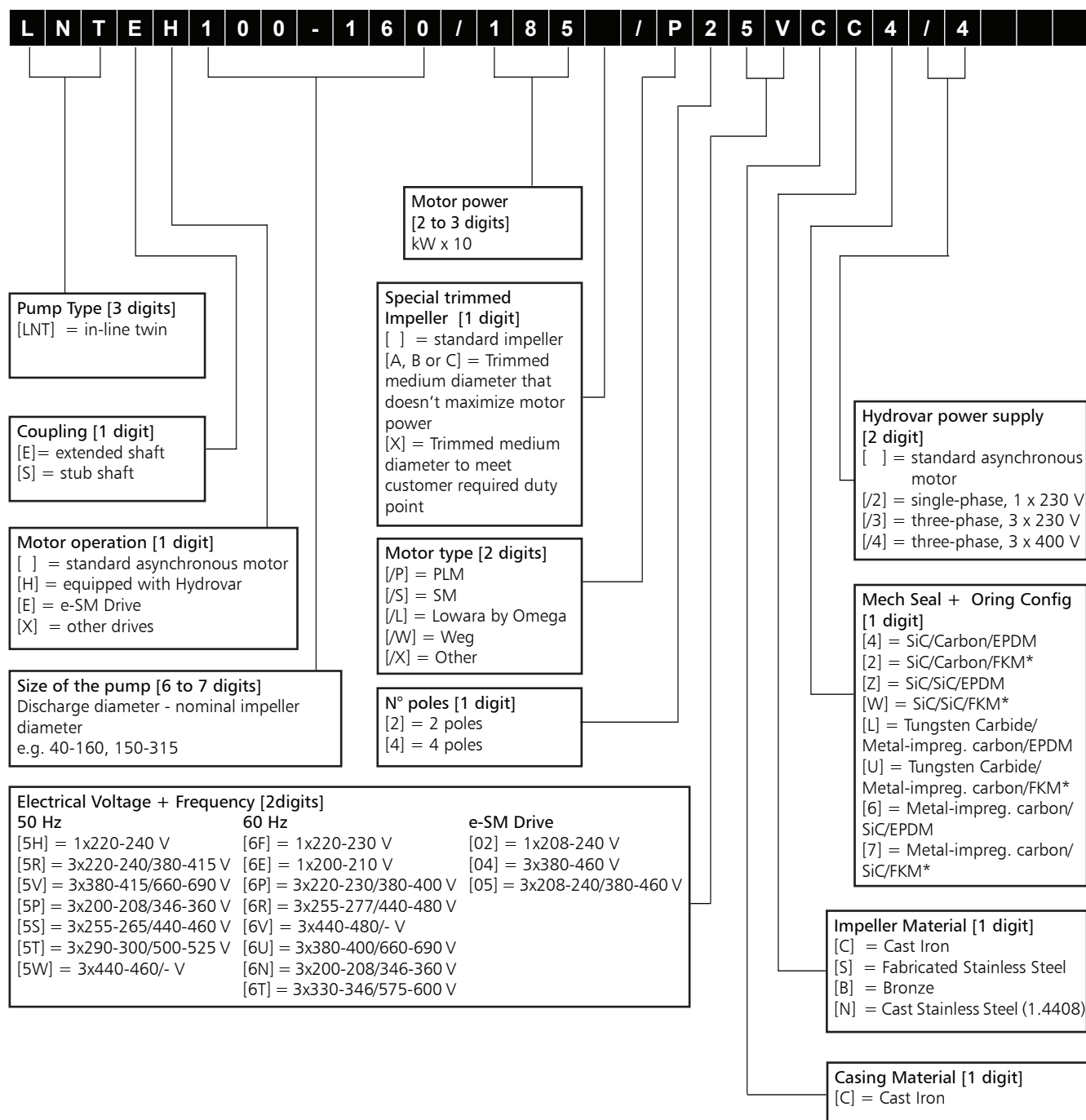
Benefits

The Lowara e-LNT Series permits to achieve the following benefits.

- **Performances:** the e-LNT pumps are equipped with high efficiency motors (IE2/IE3), 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. Dual volute configuration allows for built-in redundancy; but also provides the possibility of parallel operation.
- **Versatility:** beside the standard offer, the Lowara e-LNT series is available in different construction as well as with different material configurations for impellers and elastomers; thus addressing a wide range of applications.
- **Total cost ownership:** the best-in-class hydraulic and electric efficiency, the HYDROVAR-equipped versions, 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. Experienced engineers are fully dedicated to big projects.
- **Potable water use:** all pumps equipped with standard mechanical seal are certified for drinking water use (ACS and D.M.174/04).



e-LNT SERIES IDENTIFICATION CODE



* FPM (old ISO), FKM (ASTM & new ISO)

EXAMPLES

LNTS 125-160/75/P46PCC4

In-line twin, electric pump stub shaft coupling, DN125 nominal discharge port, 160 mm nominal impeller diameter, 7,5 kW rated motor power, PLM IE3 model, 4 pole, 60 Hz 220-230/380-400 V, cast iron casing, cast iron impeller, Silicon Carbide/Carbon/EPDM mechanical seal.

LNTS 150-250/220/L46UCB4

In-line twin, electric pump stub shaft coupling, DN150 nominal discharge port, 250 mm nominal impeller diameter, 22 kW rated motor power, Lowara by Omega IE3 model, 4 pole, 60 Hz 380-400/660-690 V, cast iron casing, bronze impeller, Silicon Carbide/Carbon/EPDM mechanical seal.

e-LNT SERIES RATING PLATE

ELECTRIC PUMP									
TYPE		PN		kPa		No/Date		Code	
t max °C		t min °C		øF mm		øT mm			
Q m ³ /h		H m		n 1/min		P ₂ kW		øF MEI ≥	
kg								øT ηp %	

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-LNT SERIES

LIST OF MODELS AT 60 Hz, 2 POLES

SIZE LNT..2	kW	VERSION	
		LNTE	LNTS
32-160/11(*)	1,1	•	•
32-160/15(*)	1,5	•	•
32-160/22(*)	2,2	•	•
32-160/30	3	•	•
32-160/40	4	•	•
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	•	-
40-200/75	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	•	-
50-160/110	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	•	•

• = Available

LNT_models-2p60-en_c_sc

SIZE LNT..2	kW	VERSION	
		LNTE	LNTS
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	-	•
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	•	•
80-200/220	22	-	•
80-200/300	30	-	•
80-200/370	37	-	•
100-160/185	18,5	•	•
100-160/220	22	•	•

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

LEGEND

LNTE : Extended shaft (twin version).

LNTS : Stub shaft (twin version).

e-LNT SERIES

LIST OF MODELS AT 60 Hz, 4 POLES

SIZE LNT..4	kW	VERSION	
		LNTE	LNTS
32-160/02	0,25	•	-
32-160/03	0,37	•	-
32-160/05	0,55	•	•
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	•	•

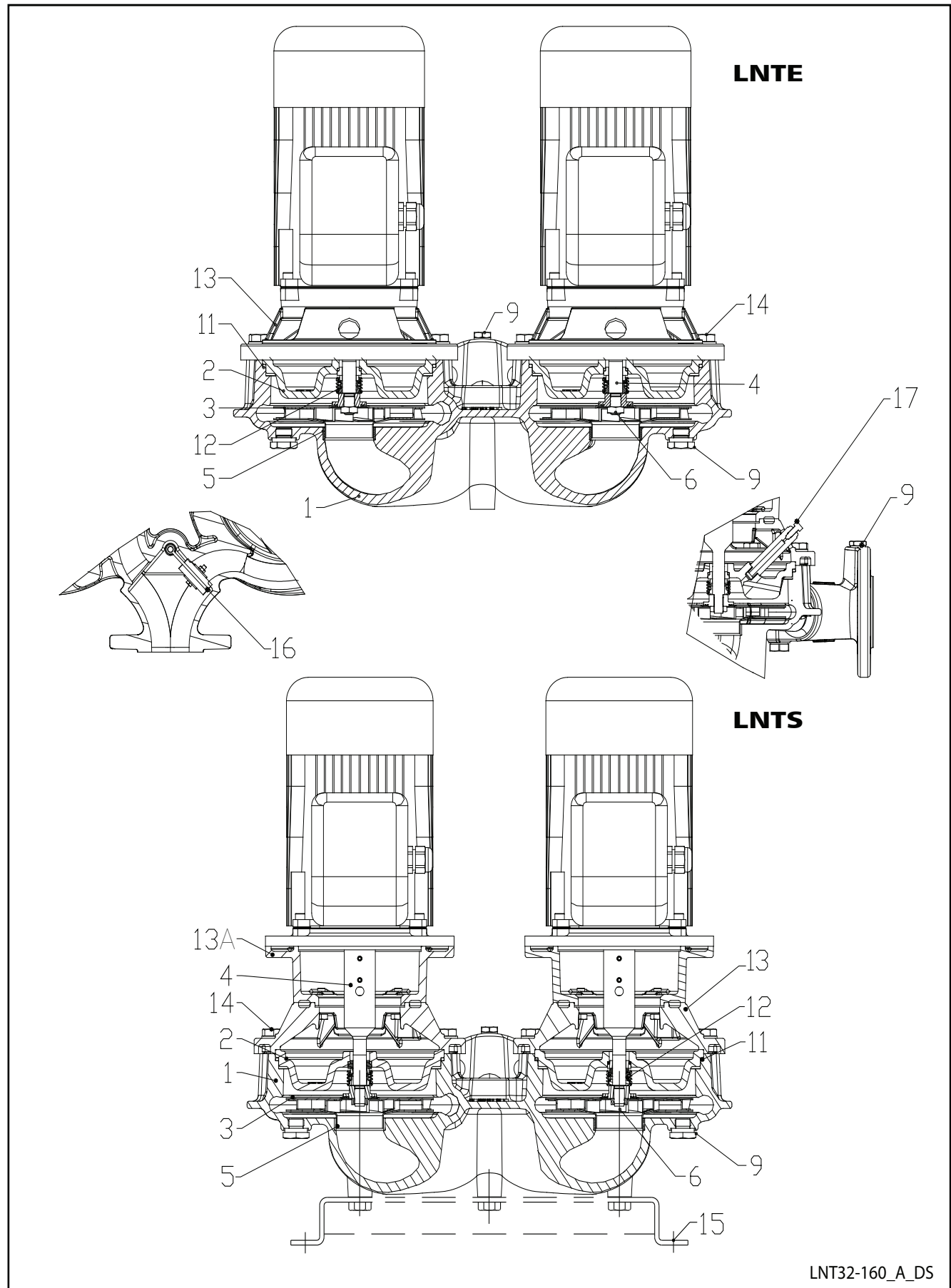
• = Available

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SIZE LNT..4	kW	VERSION	
		LNTE	LNTS
80-160/22A	2,2	•	•
80-160/22	2,2	•	•
80-160/30	3	•	•
80-160/40	4	•	•
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	-	•
80-315/300	30	-	•
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	-	•

LNT 32-160

ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS



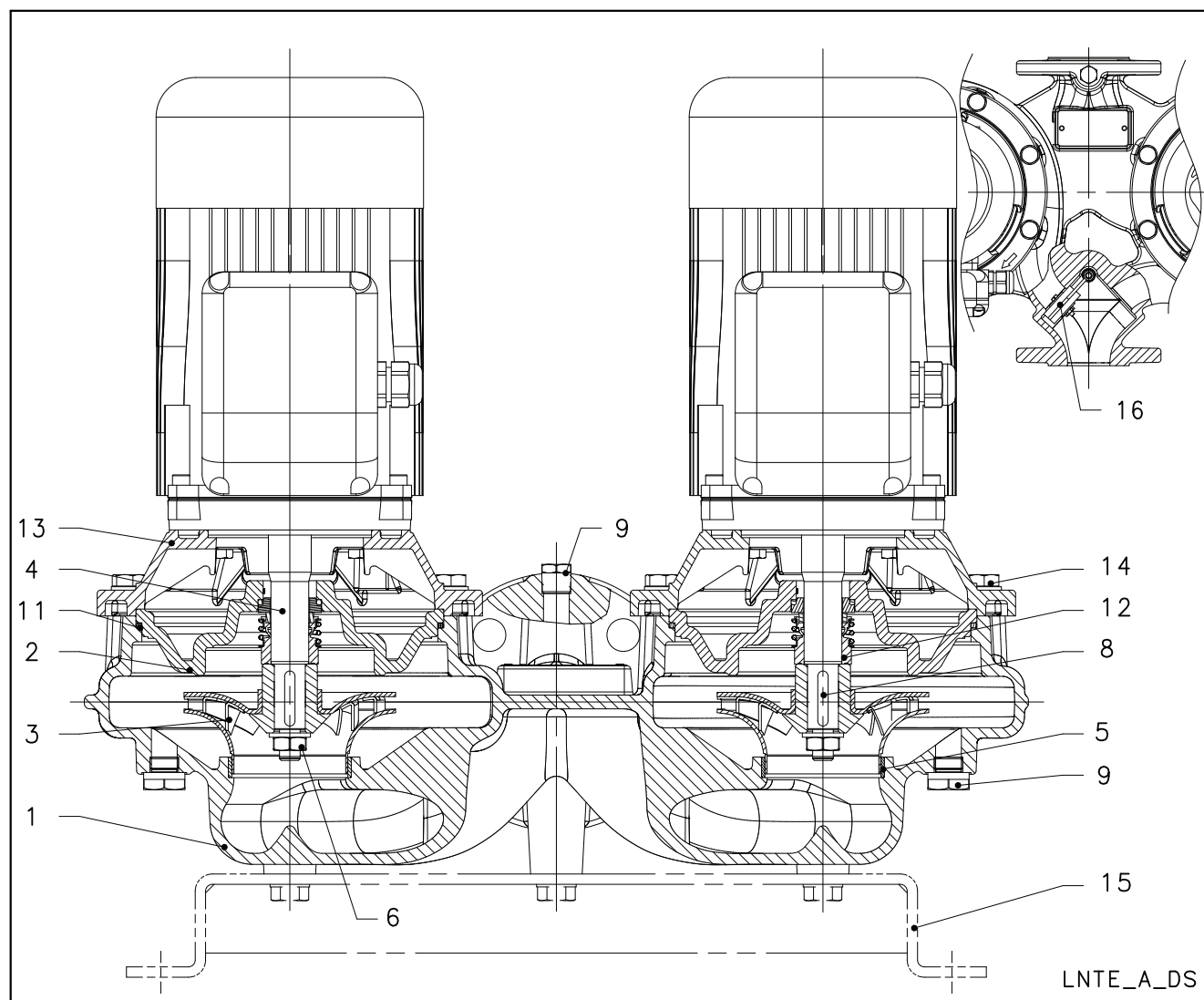
LNT 32-160

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	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
4	Shaft extension (LNTE version)	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
4	Stub shaft (LNTS version)	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
9	Fill and drain plugs	Stainless steel	EN 10088-3-X8CrNiS18-9 (1.4305)	AISI 303
11	O-Ring	EPDM (standard version)		
12	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
13	Pump bracket	Aluminium	EN 1706-AC-AISI11Cu2 (Fe) (AC46100)	-
13A	Motor adapter	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
14	Volute casing fastening bolts and screws	Galvanized steel		
15	Pump base (optional)	Carbon steel	EN 10025-2 - 1.0038	
16	Clapet valve	Stainless steel / EPDM	A4 (~1.4301) / EPDM 50	
17	Air valve	Stainless steel	EN 10088-3-X8CrNiS18-9 (1.4305)	AISI 303

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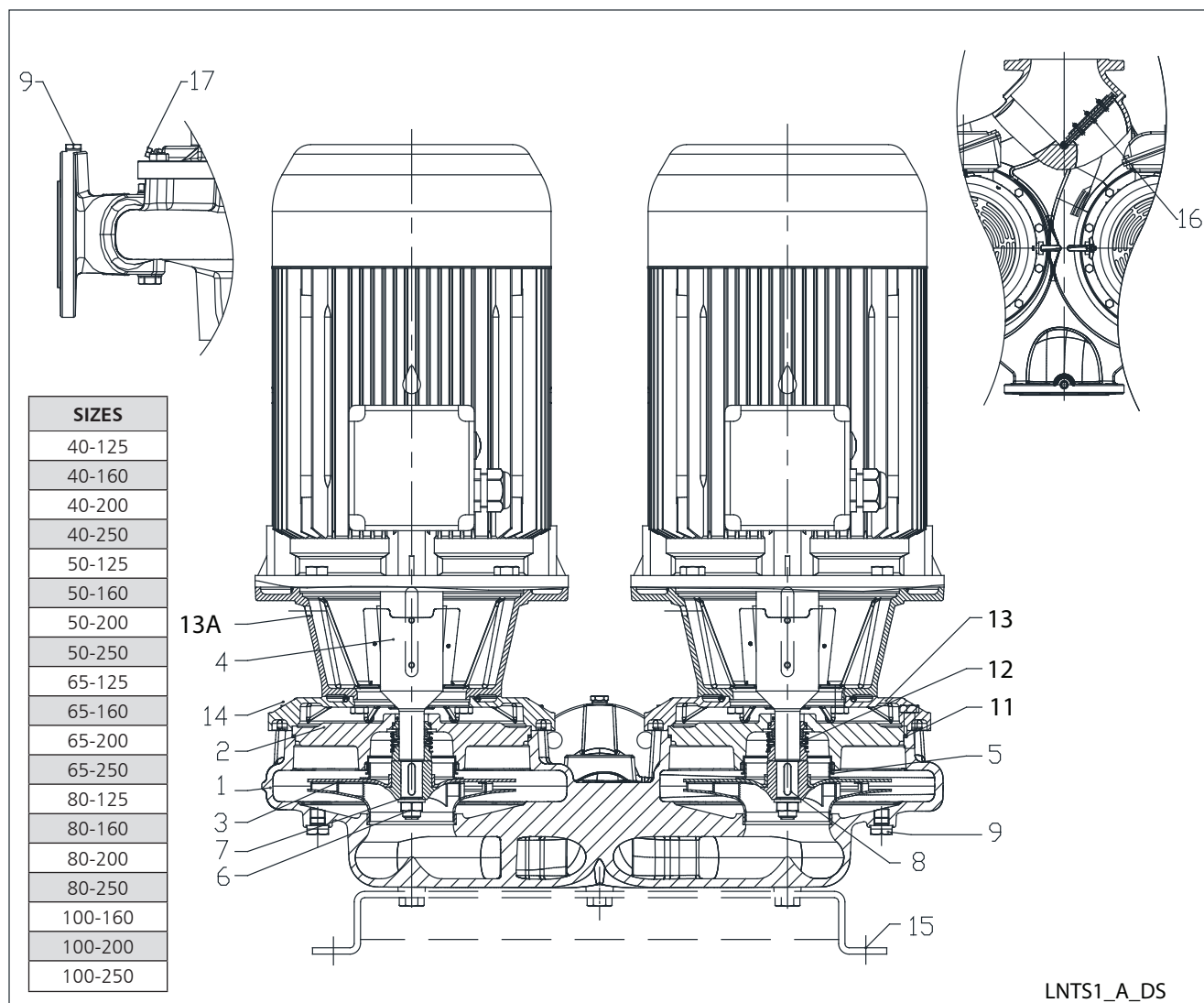
LNTE SERIES ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS



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-X5CrNi18-10 (1.4301)	AISI 304
	Impeller (80, 100)	Cast iron	EN 1561 - GJL-200 (JL1030)	ASTM Class 30
	Impeller (80, 100)	Bronze	EN 1982 - CuSn10-C (CC480K)	UNS C90700
	Impeller (80, 100)	Stainless steel	EN 10283-1-GX5CrNiMo19-11-2 (1.4408)	ASTM A743 CF-8M
4	Shaft extension	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
5	Wear ring	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
6	Impeller lock nut and washer	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
8	Impeller key	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
9	Fill and drain plugs	Stainless steel	EN 10088-3-X8CrNiS18-9 (1.4305)	AISI 303
11	O-Ring	EPDM (standard version)		
12	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
13	Pump bracket *	Aluminium	EN 1706-AC-AISI11Cu2 (Fe) (AC46100)	-
	Pump bracket	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	
16	Pump flap complete	Stainless steel/EPDM A4 (~ 1.4301) / EPDM 50		

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

LNTS SERIES ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS

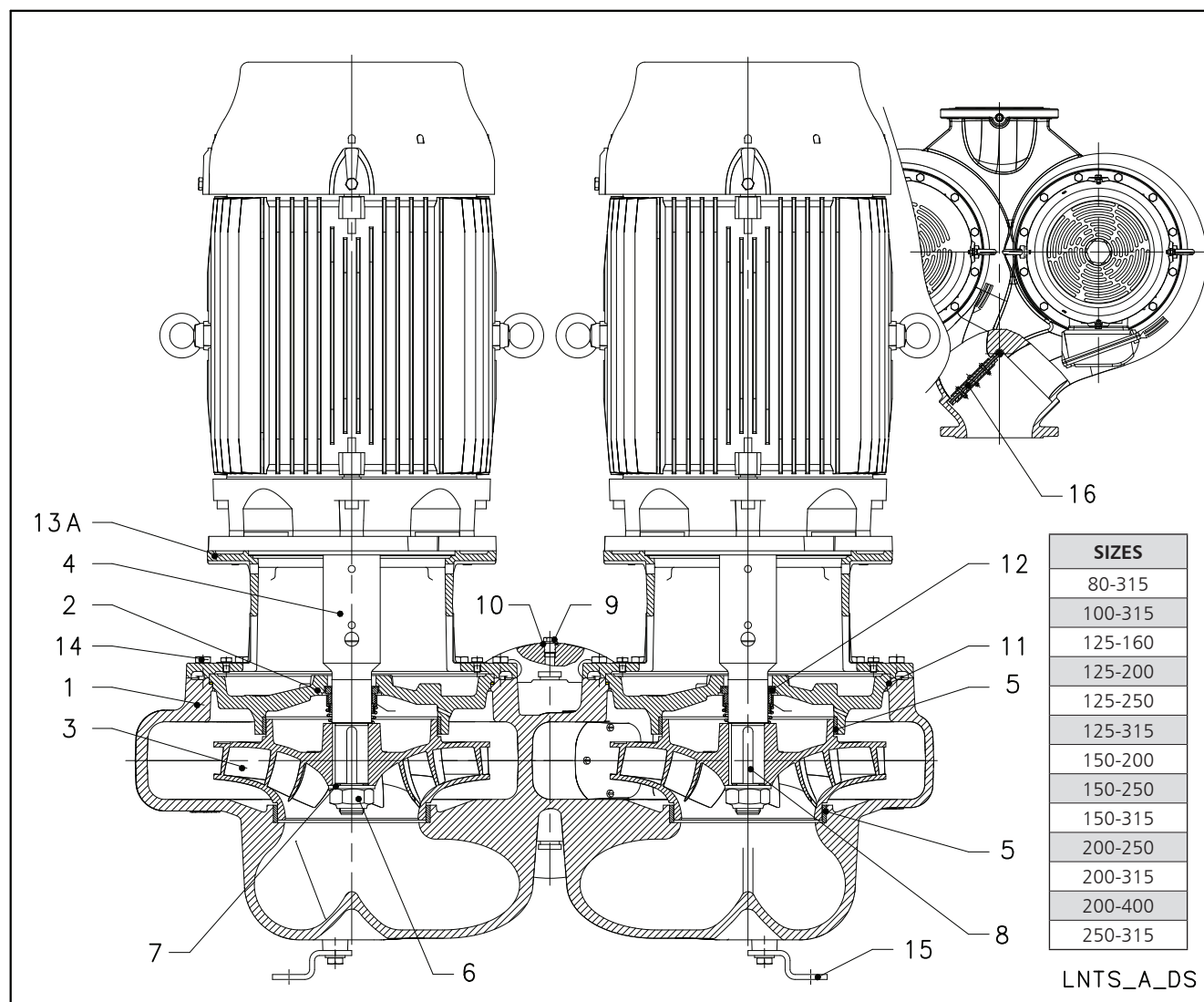


LNTS1_A_DS

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-X5CrNi18-10 (1.4301)	AISI 304
	Impeller (80,100)	Cast iron	EN 1561 - GJL-200 (JL1030)	ASTM Class 30
	Impeller (80,100)	Bronze	EN 1982 - CuSn10-C (CC480K)	UNS C90700
	Impeller (80,100)	Stainless steel	EN 10283-1-GX5CrNiMo19-11-2 (1.4408)	ASTM A743 CF-8M
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 10088-1-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 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
9	Plug	Stainless steel	EN 10088-3-X8CrNiS18-9 (1.4305)	AISI 303
11	O-Ring	EPDM (standard version)		
12	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
13	Pump bracket *	Aluminium	EN 1706-AC-AISI11Cu2 (Fe) (AC46100)	-
	Pump bracket	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
13A	Motor adapter	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
14	Volute - casing fastening screws	Carbon steel		
15	Pump base	Carbon steel		
16	Pump flap complete	Stainless steel/EPDM		
		A4 (~ 1.4301) / EPDM 50		
17	Air valve	Stainless steel	EN 10088-3-X8CrNiS18-9 (1.4305)	AISI 303

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

LNTS SERIES ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS

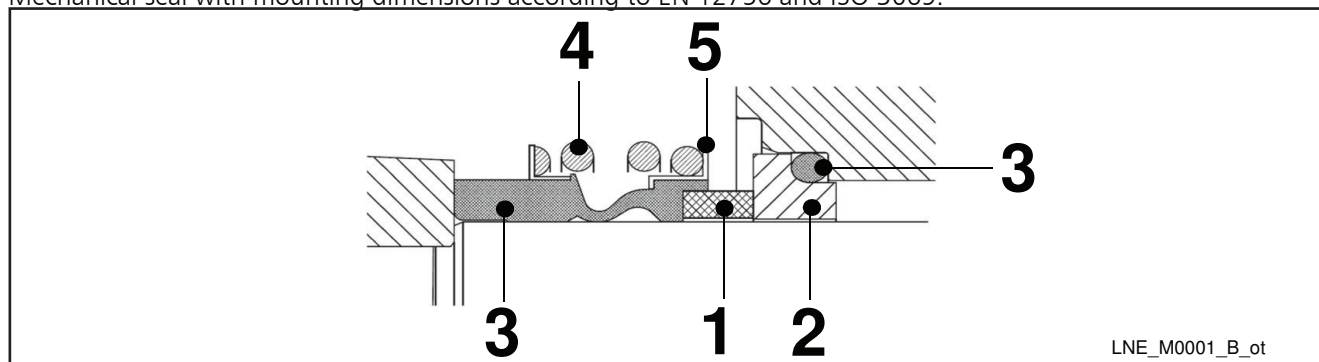


REF. N.	PART	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Volute casing	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
2	Casing cover	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
3	Impeller	Cast iron	EN 1561 - GJL-200 (JL1030)	ASTM Class 30
	Impeller	Bronze	EN 1982 - CuSn10-C (CC480K)	UNS C90700
4	Stub shaft	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
	Stub shaft (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)		
13A	Motor adapter	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
14	Volute - casing fastening screws	Carbon steel		
15	Pump base	Carbon steel	EN 10025-2 - 1.0038	
16	Pump flap complete	Stainless steel/EPDM	A4 (~ 1.4301) / EPDM 50	

LNTS-en_c_tm

e-LNT SERIES MECHANICAL SEALS

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



LNE_M0001_B_ot

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)	
Q₇ : Silicon carbide		
U₃ : Tungsten carbide		

lne-lnt_ten-mec-en_b_tm

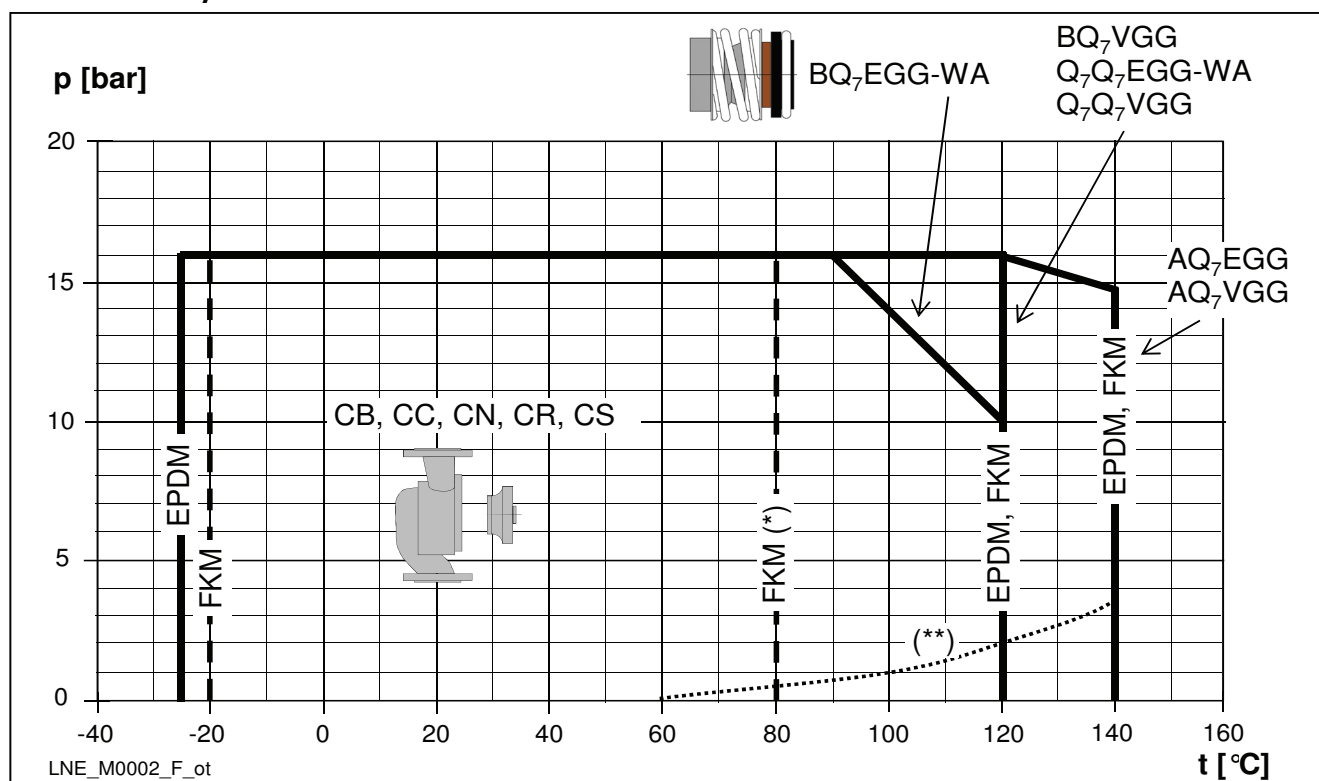
TYPE OF SEAL

TYPE	POSITION					PRESSURE (bar)	TEMPERATURE (°C)
	1 ROTATING ASSEMBLY	2 FIXED ASSEMBLY	3 ELASTOMERS	4 SPRINGS	5 OTHER COMPONENTS		
STANDARD MECHANICAL SEAL							
B Q ₇ E G G - WA	B	Q ₇	E	G	G	16/10	-25 ... +90/+120
OTHER TYPES OF MECHANICAL SEAL							
B Q ₇ V G G	B	Q ₇	V	G	G	16	-20 ... +120 ^{*)}
Q ₇ Q ₇ E G G - WA	Q ₇	Q ₇	E	G	G	16	-25 ... +120
Q ₇ Q ₇ V G G	Q ₇	Q ₇	V	G	G	16	-20 ... +120 ^{*)}
A Q ₇ E G G	A	Q ₇	E	G	G	16	-25 ... +140
A Q ₇ V G G	A	Q ₇	V	G	G	16	-20 ... +140 ^{*)}

^{*)} for hot water: max. +80 °C

lne-lnt_tipi-ten-mec-en_c_tc

PRESSURE/TEMPERATURE APPLICATION LIMITS FOR COMPLETE PUMP



^{*)} hot water, ^(**) minimum pressure required at mechanical seal (hot water; could be different in case of other liquids).

e-LNT SERIES MOTORS (ErP 2009/125/EC)

- Short-circuit squirrel-cage motor, enclosed construction with external ventilation (TEFC).
- Rated power from 1,1 to 37 kW for 2-pole range and from 0,25 to 45 kW for 4-pole range.
- **IP55** protection degree.
- Insulation class **155 (F)**.
- Electrical performances according to EN 60034-1.
- **Supplied three-phase surface motors with IE2 (power < 0,75 kW) or IE3 (power ≥ 0,75 kW) efficiency level according to EN 60034-30:2009 and EN 60034-30-1:2014.**
- Metric cable gland according to EN 50262.
- PTC included in motors from IEC size 200 and above (one per phase, 155°C)

- **Single-phase** version:
Standard voltage: 220-230 V 60 Hz
Built-in automatic reset overload protection.
Maximum ambient temperature: 40 °C.
- **Three-phase** version:
Standard voltage:
- 2 poles
220-230/380-400 V 60 Hz for power up to 22 kW.
220/380 V 60 Hz for power above 22 kW.
- 4 poles
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.

From 1 July 2021 in accordance with the **Regulations (EU) 2019/1781 and 2021/341**, the three-phase 50 Hz, 60 Hz or 50/60 Hz **surface motors** with **rated power ranging from 0,12 to 0,749 kW** must have a minimum level **IE2** efficiency; the ones with **rated power ranging from 0,75 and 1000 kW** must have a minimum level of **IE3** efficiency.

From 1 July 2023, additional requirements will be introduced.

The following tables also contain the mandatory information pursuant to Annex I, section 2, of the aforementioned Regulations.

LNTE 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							Operating conditions **		
					μF	V	min ⁻¹	I _s / I _n	η %	cosφ	T _n Nm	T _s /T _n	T _m /T _n	Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
1,1	SM90RB14S2/1116	90R	B14	6,94-6,89	30	450	3436	4,54	74,2	0,97	3,06	0,62	2,03	≤ 1000	-15 / 50	No
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.

LNTE-motm-2p60-en_c_te

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

LNTE SERIES

THREE-PHASE MOTORS AT 60 Hz, 2 POLES

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	T _s /T _N	T _m /T _N
	Model									
1,1	SM90RB14S2/311 E3	90R	SPECIAL	2	60	0,80	9,11	3,01	4,15	4,29
1,5	SM90RB14S2/315 E3	90R				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
15	PLM160B34S3/3150 E3	160				0,89	9,81	40,3	2,79	4,41
18,5	PLM160B34S3/3185 E3	160				0,89	10,1	49,7	2,78	4,59
22	PLM160B34S3/3220 E3	160				0,87	11,3	59,1	3,27	5,18

P _N kW	Voltage U _N V								n _N min-1	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)											
1,1	4,24	4,24	2,45	2,45	2,44	2,43	1,41	1,40	3490 ÷ 3505	≤ 1000	-15 / 50	No
1,5	5,58	5,53	3,22	3,19	3,23	3,22	1,86	1,86	3485 ÷ 3505			
2,2	7,97	7,93	4,60	4,58	4,59	4,57	2,65	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			

P _N kW	Efficiency η_N %												IE
	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	
1,1	85,6	85,0	82,1	85,6	85,0	82,1	85,6	85,0	82,1	85,6	85,0	82,1	3
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	
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	

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

LNTE-IE3-mott-2p60-en_d_te

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

LNTS SERIES

THREE-PHASE MOTORS AT 60 Hz, 2 POLES

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	T _s /T _N	T _m /T _N
	Model									
1,1	SM80B5/311 E3	80	B5	2	60	0,80	9,11	3,01	4,15	4,29
1,5	SM90RB5/315 E3	90R				0,82	9,79	4,10	4,36	4,37
2,2	PLM90B5/322 E3	90				0,82	9,80	6,01	3,8	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	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)											
1,1	4,24	4,24	2,45	2,45	2,44	2,43	1,41	1,40	3490 ÷ 3505	VI 1000	-15 / 50	No
1,5	5,58	5,53	3,22	3,19	3,23	3,22	1,86	1,86	3485 ÷ 3505			
2,2	7,97	7,93	4,60	4,58	4,59	4,57	2,65	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			

P _N kW	Efficiency η_N %												IE
	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	
1,1	85,6	85,0	82,1	85,6	85,0	82,1	85,6	85,0	82,1	85,6	85,0	82,1	3
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	
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	

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

LNES-IE3-mott-2p60-en_e_te

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

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

P _N kW	Manufacturer	IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 380 V / 60 Hz Voltage				
	Model					cosφ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
30	3MAS 200LA2 B5 30KW E3	200	B5	2	60	0,90	7,60	80,4	2,40	2,90
37	3MAS 200LB2 B5 37KW E3	200				0,90	7,70	99,2	2,50	2,90

P _N kW	Voltage U _N V				n _N min ⁻¹	Operating conditions **		
	Δ		Y			Altitude above sea Level (m)	T. amb min/max °C	ATEX
	220 V		380 V					
	I _N (A)							
30	94,6	54,8	54,8	31,6	3565	1000 VI	-20 / 50	No
37	115,9	67,1	67,2	38,7	3565			

P _N kW	Efficiency η_N %						IE
	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	92,4	92,6	91,7	92,4	92,5	91,7	3
37	93,0	93,4	92,8	93,0	93,4	92,9	

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

LNES-IE3-mott37-2p60-en_b_te

LNTE SERIES

THREE-PHASE MOTORS AT 60 Hz, 4 POLES

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	T _N Nm	T _s /T _N	T _m /T _N
	Model									
0,25	SM471B5/302	71	SPECIAL	4	60	0,72	4,5	1,0	1,90	2,00
0,37	SM471B5/304	71				0,60	6,5	2,0	3,50	3,70
0,55	SM490RB14S2/305	90R				0,76	5,0	3,02	2,70	2,90
0,75	LLM490RB14S2/307 E3	90R				0,79	6,50	4,10	3,30	3,80
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	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	1,30	1,21	0,75	0,70	-	-	-	-	1650	VI 1000	-15 / 40	No
0,37	1,99	1,91	1,15	1,1	-	-	-	-	1630			
0,55	2,42	2,25	1,40	1,3	-	-	-	-	1650			
0,75	3,00	3,00	1,75	1,75	1,75	1,75	1,00	1,00	1735 ÷ 1745			
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			

P _N kW	Efficiency η_N %												IE
	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	
0,25	70,0	71,9	67,3	69,9	71,5	67,1	-	-	-	-	-	-	2
0,37	72,0	74,5	68,7	71,9	74,2	68,1	-	-	-	-	-	-	
0,55	81,7	82,1	79,5	82,2	81,8	78,8	-	-	-	-	-	-	
0,75	85,7	85,4	82,9	85,7	85,4	82,9	85,7	85,4	82,9	85,7	85,4	82,9	3
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	
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	

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

LNTE-IE3-mott-4p60-en_d_te

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

LNTS SERIES

THREE-PHASE MOTORS AT 60 Hz, 4 POLES

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	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model									
0,55	LLM480B5/305	80	B5	4	60	0,76	5,00	3,02	2,70	2,90
0,75	LLM480B5/307 E3	80				0,79	6,50	4,10	3,30	3,80
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	4,10
2,2	PLM4100B5/322 E3	100				0,77	7,74	12,00	2,28	3,80
3	PLM4100B5/330 E3	100				0,74	8,18	16,30	2,35	4,39
4	PLM4112B5/340 E3	112				0,79	8,81	21,80	3,01	4,18
5,5	PLM4132B5/355 E3	132				0,77	7,67	29,70	2,63	3,61
7,5	PLM4132B5/375 E3	132				0,79	7,88	40,70	2,54	3,53
11	PLM4160B5/3110 E3	160				0,82	7,50	59,30	2,46	3,27
15	PLM4160B5/3150 E3	160				0,79	8,83	80,70	2,91	3,99

P _N kW	Voltage U _N V								n _N min ⁻¹	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	2,42	2,25	1,40	1,30	-	-	-	-	1650	1000 VI	-15 / 40	No
0,75	3,00	3,00	1,75	1,75	1,75	1,75	1,00	1,00	1735 ÷ 1745			
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			

P _N kW	Efficiency η_N %												IE
	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	
0,55	81,7	82,1	79,5	82,2	81,8	78,8	-	-	-	-	-	-	3
0,75	85,7	85,4	82,9	85,7	85,4	82,9	85,7	85,4	82,9	85,7	85,4	82,9	
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	
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	

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

LNES-IE3-mott15-4p60-en_d_te

LNTS SERIES
THREE-PHASE MOTORS AT 60 Hz, 4 POLES (from 18,5 to 37 kW)

P _N kW	Manufacturer	IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 60 Hz				
	OMEGA MOTOR SANAYİ A.Ş. Dudullu Organize Sanayi Bölgesi 2. Cadde No: 10 34775 Ümraniye/İSTANBUL/TURKEY Reg. No. 913733					cosφ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model									
18,5	3MAS 180M4 B5 18.5kW E3	180	B5	4	60	0,82	6,40	99,8	2,20	2,50
22	3MAS 180L4 B5 22kW E3	180				0,83	6,50	118,4	2,30	2,40
30	3MAS 200L4 B5 30kW E3	200				0,87	7,20	161,4	2,60	2,80
37	3MAS 225S4 B5 37kW E3	225				0,86	7,90	199,1	2,70	3,00
45	3MAS 225M4 B5 45kW E3	225				0,88	7,40	242,1	2,50	2,70

P _N kW	Voltage U _N V				n _N min ⁻¹	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)							
18,5	64,0	37,1	36,6	21,1	1770	1000 VI	-20 / 50	No
22	73,4	42,5	43,0	24,8	1775			
30	95,1	55,0	55,7	32,1	1775			
37	120,9	70,0	69,2	39,8	1775			
45	141,3	81,8	81,8	47,1	1775			

P _N kW	Efficiency η_N %						IE
	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	93,6	93,9	93,5	93,6	93,9	93,5	3
22	93,6	93,7	93,4	93,6	93,7	93,4	
30	94,1	94,2	93,8	94,1	94,2	93,8	
37	94,5	94,7	94,1	94,5	94,7	94,1	
45	95,0	95,1	94,7	95,0	95,1	94,7	

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

LNTS-IE3-mott45-4p60-en_b_te

AVAILABLE VOLTAGES FOR SM AND PLM MOTORS

P _N kW	THREE-PHASE																	
	50/60 Hz		50 Hz								60 Hz							
	3 x 230/400 50 Hz 3 x 265/460 60 Hz	3 x 400/690 50 Hz 3 x 460/- 60 Hz	3 x 220-230-240/380-400-415	3 x 380-400-415/660-690	3 x 200-208/346-360	3 x 255-265/440-460	3 x 290-300/500-525	3 x 440-460/-	3 x 500-525/-	3 x 220-230/380-400	3 x 255-265-277/440-460-480	3 x 380-400/660-690	3 x 440-460-480/-	3 x 110-115/190-200	3 x 200-208/346-360	3 x 330-346/575-600	3 x 575/-	
0,37	s	o	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o	
0,55	s	o	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o	
0,75	s	o	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o	
1,1	s	o	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o	
1,5	s	o	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o	
2,2	s	o	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o	
3	s	o	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o	
4	o	s	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o	
5,5	o	s	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o	
7,5	o	s	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o	
11	o	s	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o	
15	o	s	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o	
18,5	o	s	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o	
22	o	s	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o	

Ine-volt-lowa-en a te

Tolerances on nominal voltages

- **60 Hz:**

$\pm 10\%$ on the voltage values shown on the rating plate.

e-LNT SERIES MOTOR NOISE

The tables below show the mean sound pressure levels (Lp) measured at 1 meter distance in a free field according to EN ISO 11203.

The noise values are measured on 60 Hz motors and have a tolerance of 3 dB (A) according to EN ISO 4871.

LNTE, LNTS MOTORS 2 POLES 60 Hz

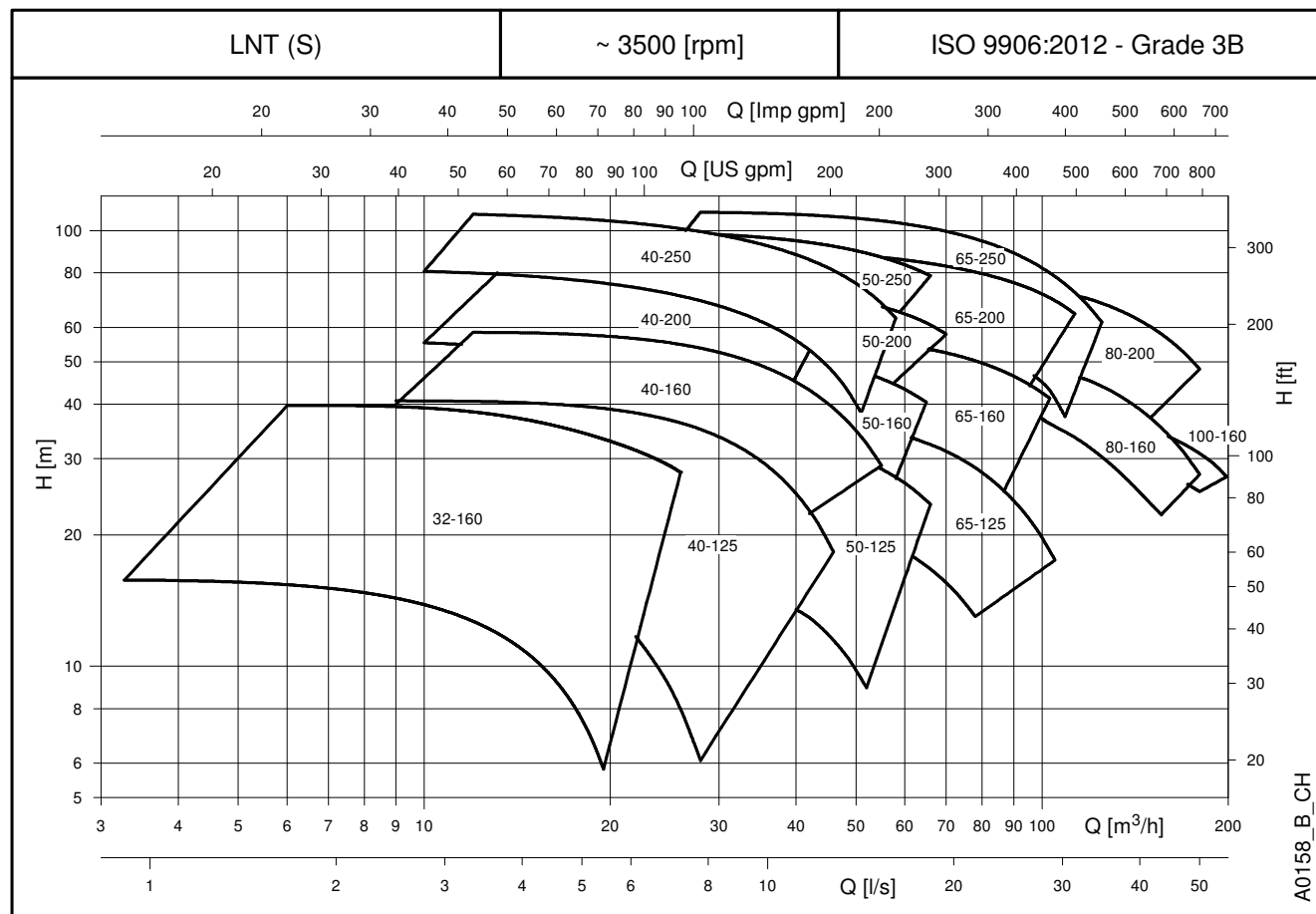
POWER kW	MOTOR TYPE IEC SIZE *	NOISE LpA dB
1,1	80	<70
	90R	<70
1,5	90R	<70
2,2	90	<70
3	90	<70
	100R	<70
4	112R	<70
5,5	112	<70
	132R	<70
7,5	132	71
9,2	132	73
11	132	73
	160R	71
15	160	71
18,5	160	73
22	160	70
	180R	70
30	200	71
37	200	71

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

LNTE, LNTS 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

LNT_mott60-en_c_tr

e-LNT SERIES (SINGLE OPERATION)
HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 2 POLES


e-LNT 32, 40, 50 SERIES (SINGLE OPERATION)

HYDRAULIC PERFORMANCE TABLE AT 60 Hz, 2 POLES

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY												
		Ø	○ ●	η _p %	l/s 0	0,9	1,4	1,9	2,5	3,1	3,6	4,2	4,7	5,3	5,8	6,4	7,2
					m ³ /h 0	3	5	7	9	11	13	15	17	19	21	23	26
		H = TOTAL HEAD METRES COLUMN OF WATER															
32-160/11 *	1,1	92	○	50,5	15,3	15,8	15,6	15,1	14,3	13,3	12,0	10,4	8,6	6,4			
32-160/15 *	1,5	104	○	52,1	18,9		19,2	18,8	18,1	17,0	15,6	14,0	12,1	10,0			
32-160/22 *	2,2	115	○	55,5	24,2		24,9	24,7	24,3	23,5	22,5	21,2	19,5	17,5	15,1		
32-160/30	3	126	○	57,1	30,7			31,3	30,8	30,0	28,9	27,6	26,1	24,5	22,7	20,6	
32-160/40	4	138	●	58,2	38,3			39,7	39,5	38,8	37,9	36,6	35,2	33,6	32,1	30,5	27,9

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY												
		Ø mm	○ ● (1)	ηp % (2)	l/s 0	1,4	2,8	4,2	5,6	6,9	8,3	9,7	11,1	11,7	13,1	14,4	16,1
					m³/h 0	5	10	15	20	25	30	35	40	42	47	52	58
					H = TOTAL HEAD METRES COLUMN OF WATER												
40-125/15 *	1,5	104	○	57,1	18,1	18,6	18,1	16,3	13,2	8,9							
40-125/22 *	2,2	118	○	59,0	23,7		24,0	22,7	20,3	16,7	12,2						
40-125/30	3	128	○	60,8	29,4		30,0	29,1	27,2	24,2	20,2	15,3					
40-125/40	4	133	○	61,9	33,4		34,2	33,5	31,9	29,3	25,7	21,2	15,9				
40-125/55	5,5	145	●	63,6	39,7		40,7	40,2	38,9	36,8	33,7	29,7	24,9	22,8			
40-160/40	4	137	○	61,5	34,4		34,5	33,7	32,4	30,4	27,7	24,2					
40-160/55	5,5	150	○	62,9	42,0		43,2	42,5	41,2	39,2	36,6	33,3	29,3	27,4			
40-160/75	7,5	160,5	○	63,3	49,8			50,3	48,4	46,0	43,1	39,7	35,9	34,2	29,5		
40-160/92	9,2	171	●	64,3	56,0			58,3	57,2	55,3	52,6	49,1	45,0	43,1	38,1	32,5	
40-200/75	7,5	171	○	52,7	56,8		55,3	53,9	51,9	49,3	45,8	41,2					
40-200/92	9,2	186	○	54,0	66,4			63,6	61,7	59,3	56,2	52,2	47,2				
40-200/110A	11	186	○	54,0	66,4			63,6	61,7	59,3	56,2	52,2	47,2				
40-200/110	11	198	●	54,9	73,0			70,2	68,4	66,2	63,3	59,6	55,1	52,9			
40-250/150	15	208	○	47,2	81,0		80,7	78,6	75,5	71,7	67,2	62,1	56,0	53,3	45,6		
40-250/185	18,5	226,5	○	48,9	98,4			96,6	93,8	90,2	86,1	81,3	75,9	73,5	67,0	59,4	
40-250/220	22	239	●	49,8	109,3			107,9	105,3	101,9	97,9	93,3	88,1	85,9	79,7	72,8	63,0

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø mm	○ ● (1)	η _p % (2)	l/s 0	2,2	3,9	5,6	7,2	8,9	10,6	12,2	13,9	15,6	16,9	18,1	19,4	
					m³/h 0	8	14	20	26	32	38	44	50	56	61	65	70	
					H = TOTAL HEAD METRES COLUMN OF WATER													
50-125/30	3	105	○	59,9	20,0	20,0	19,5	18,6	17,5	16,1	14,3	12,2	9,8					
50-125/40	4	118	○	63,3	26,2		25,7	24,9	24,0	22,7	21,2	19,3	17,2	14,7				
50-125/55	5,5	130	○	66,3	32,9		32,2	31,7	31,0	30,0	28,6	26,8	24,6	22,0	19,6			
50-125/75	7,5	135	●	69,6	37,3		36,5	36,1	35,5	34,6	33,5	32,0	30,2	28,0	25,9	24,1		
50-160/55	5,5	127	○	65,9	33,1	32,6	32,7	32,5	31,9	30,5	28,4	25,6	22,4					
50-160/75	7,5	139	○	66,9	37,7		37,8	37,6	37,2	36,4	35,2	33,6	31,6	29,2				
50-160/92	9,2	154	○	69,2	48,9		48,3	48,3	48,2	47,6	46,5	44,8	42,5	39,6	36,9			
50-160/110	11	163	●	70,1	53,5		52,8	52,8	52,7	52,3	51,4	50,0	47,9	45,3	42,7	40,4		
50-200/92	9,2	165	○	58,5	53,0		53,5	52,6	51,1	49,2	46,9	44,2	40,9					
50-200/110A	11	165	○	58,5	53,0		53,5	52,6	51,1	49,2	46,9	44,2	40,9					
50-200/110	11	177	○	59,3	58,3			58,1	56,7	54,9	52,7	50,1	47,1	43,4				
50-200/150	15	189	○	62,0	69,0			69,6	68,2	66,5	64,8	62,9	60,9	58,5	55,9	53,4		
50-200/185	18,5	199	●	62,5	77,1			78,1	76,9	75,4	73,6	71,5	69,2	66,5	63,9	61,4	57,9	
50-250/185	18,5	210	○	59,4	88,8				87,9	86,3	84,2	81,4	78,0	73,9	70,1			
50-250/220	22	225	●	60,3	99,3				98,8	97,5	95,6	93,1	90,0	86,3	82,7	79,6		

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

LNT-32-40-50_2p60S-en_a_th

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

*Available also in single-phase version.

e-LNT 65, 80, 100 SERIES (SINGLE OPERATION)

HYDRAULIC PERFORMANCE TABLE AT 60 Hz, 2 POLES

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	34,7
					m³/h	0	22	31	40	49	58	67	76	85	94	103	112	125
					H = TOTAL HEAD METRES COLUMN OF WATER													
65-125/55	5,5	118	○	62,8	25,5	24,4	23,6	22,4	20,8	18,8	16,4	13,7						
65-125/75	7,5	130	○	65,8	32,4		30,1	29,0	27,5	25,5	23,0	20,0	16,8					
65-125/92	9,2	140	○	67,8	37,6		35,9	35,0	33,7	31,8	29,4	26,5	23,2	19,4				
65-125/110A	11	140	○	67,8	37,6		35,9	35,0	33,7	31,8	29,4	26,5	23,2	19,4				
65-125/110	11	144	●	68,5	39,8		38,2	37,3	36,0	34,3	32,0	29,3	26,0	22,4	18,4			
65-160/110	11	152	○	65,4	45,1		42,8	41,8	40,3	38,3	35,8	32,8	29,3					
65-160/150	15	170	○	67,6	56,6		54,4	53,5	52,3	50,8	48,8	46,3	43,3	39,9				
65-160/185	18,5	176	●	68,4	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	○	65,6	63,9		65,9	64,3	62,3	59,9	57,1	53,7	49,6	44,3				
65-200/220	22	195	○	66,8	72,1		74,7	73,3	71,5	69,2	66,5	63,5	59,8	55,4				
65-200/300	30	209	●	68,7	87,3			89,9	88,3	86,2	83,8	81,0	77,9	74,3	70,1	65,1		
65-250/220	22	202	○	63,8	79,9		81,0	79,2	76,5	73,0	68,6	63,4	57,4	50,6	43,0			
65-250/300	30	220	○	65,3	96,7		98,7	97,3	95,1	92,1	88,4	83,8	78,5	72,5	65,8	58,3		
65-250/370	37	232	●	66,4	107,6		110,1	109,0	107,1	104,4	101,0	96,8	91,9	86,3	80,0	73,0	61,7	

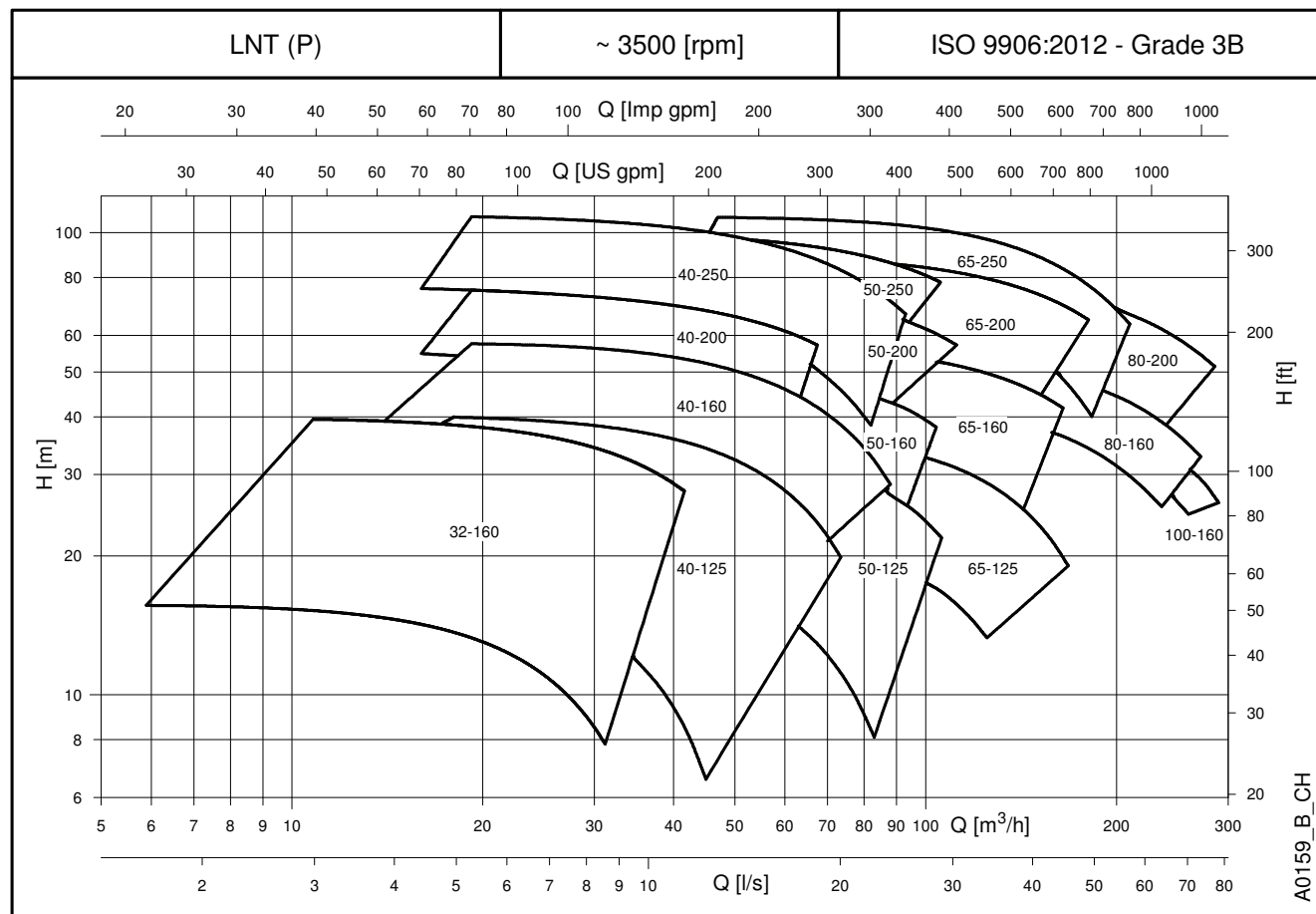
PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø mm	○ ● (1)	η _p % (2)	l/s	0	8,9	12,5	16,1	19,7	23,3	26,9	30,6	34,2	37,8	41,4	45,0	50,0
					m³/h	0	32	45	58	71	84	97	110	123	136	149	162	180
					H = TOTAL HEAD METRES COLUMN OF WATER													
80-160/150	15	151	○	71,5	45,1			43,8	43,1	41,9	40,0	37,4	34,3	30,8	27,2	23,8		
80-160/185	18,5	162	○	72,9	50,0			48,7	48,1	47,1	45,5	43,2	40,3	37,0	33,3	29,6	26,3	
80-160/220	22	168	●	73,9	55,7			54,6	54,0	53,0	51,6	49,7	47,3	44,4	41,1	37,4	33,4	27,6
80-200/220	22	173	○	68,5	60,5	60,9		60,3	59,2	57,6	55,3	52,4	48,8	44,7	40,0			
80-200/300	30	189	○	70,0	72,2			72,4	71,6	70,2	68,3	65,9	62,8	59,2	55,1	50,4	45,2	
80-200/370	37	199	●	71,0	80,1			80,6	79,9	78,7	77,0	74,8	72,0	68,7	64,9	60,5	55,6	48,1

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø mm	● (1)	ηp % (2)	l/s	0	12,2	16,1	20,0	23,9	27,8	31,7	35,6	39,4	43,3	47,2	51,1	55,6
					m³/h	0	44	58	72	86	100	114	128	142	156	170	184	200
					H = TOTAL HEAD METRES COLUMN OF WATER													
100-160/185	18,5	144	○	68,6	39,2	38,2	37,6	36,9	36,0	35,0	33,8	32,5	30,9	29,1	26,9			
100-160/220	22	152	●	69,5	43,7			41,5	40,7	39,8	38,7	37,4	35,9	34,3	32,3	30,2	27,3	

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

LNT-65-80-100_2p60S-en_b_th

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

e-LNT SERIES (PARALLEL OPERATION)
HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 2 POLES


e-LNT 32, 40, 50 SERIES (PARALLEL OPERATION)

HYDRAULIC PERFORMANCE TABLE AT 60 Hz, 2 POLES

PUMP TYPE	P _N kW	Impeller		Q = DELIVERY												
		Ø mm	○ ● (1)	l/s 0	1,6	2,5	3,3	4,2	5,0	5,8	6,7	7,5	8,3	9,2	10,0	11,6
				m³/h 0	6	9	12	15	18	21	24	27	30	33	36	42
				H = TOTAL HEAD METRES COLUMN OF WATER												
32-160/11 *	1,1	92	○	15,4	15,6	15,4	15,0	14,5	13,7	12,7	11,5	10,1	8,5			
32-160/15 *	1,5	104	○	19,1		19,1	18,7	18,1	17,3	16,3	15,1	13,7	12,1			
32-160/22 *	2,2	115	○	24,3		24,7	24,5	24,0	23,4	22,6	21,6	20,4	19,0	17,4		
32-160/30	3	126	○	31,0			31,1	30,6	30,0	29,1	28,2	27,0	25,7	24,2	22,5	
32-160/40	4	138	●	38,7			39,4	39,0	38,4	37,6	36,7	35,6	34,3	32,8	31,2	27,6

PUMP TYPE	P _N kW	Impeller		Q = DELIVERY												
		Ø mm	○ ● (1)	l/s 0	2,8	5,0	6,9	8,9	10,8	12,8	14,7	17,2	18,6	20,8	23,1	25,8
				m³/h 0	10	18	25	32	39	46	53	62	67	75	83	93
				H = TOTAL HEAD METRES COLUMN OF WATER												
40-125/15 *	1,5	104	○	18,1	18,2	17,2	15,5	13,1	9,9							
40-125/22 *	2,2	118	○	23,6		23,1	21,8	19,8	17,1	13,7						
40-125/30	3	128	○	29,3		29,0	27,9	26,1	23,8	20,9	17,4					
40-125/40	4	133	○	33,4		33,3	32,4	30,9	28,8	26,2	23,0	18,0				
40-125/55	5,5	145	●	39,7		39,9	39,2	37,9	36,1	33,8	31,0	26,7	23,9			
40-160/40	4	137	○	33,9		33,5	32,4	31,0	29,0	26,6	23,8	19,4				
40-160/55	5,5	150	○	41,5		42,1	41,2	39,8	37,8	35,5	32,6	28,4	25,7			
40-160/75	7,5	160,5	○	48,5		50,2	49,6	48,3	46,5	44,1	41,3	37,1	34,4	29,8		
40-160/92	9,2	171	●	55,7			57,1	55,9	54,1	51,9	49,1	44,9	42,2	37,5	32,2	
40-200/75	7,5	171	○	56,4		54,4	52,9	51,0	48,7	45,9	42,6					
40-200/92	9,2	186	○	65,8		63,8	62,3	60,5	58,3	55,7	52,7	48,1				
40-200/110A	11	186	○	65,8		63,8	62,3	60,5	58,3	55,7	52,7	48,1				
40-200/110	11	198	●	72,3			68,9	67,1	65,0	62,5	59,6	55,3	52,5			
40-250/150	15,0	208	○	80,9		79,9	78,4	76,1	73,2	69,6	65,4	59,2	55,4	48,9		
40-250/185	18,5	226,5	○	98,2		97,4	96,0	94,1	91,5	88,3	84,5	78,8	75,2	69,1	62,4	
40-250/220	22	239	●	109,1			107,3	105,5	103,1	100,1	96,5	91,1	87,8	81,9	75,5	66,8

PUMP TYPE	P _N kW	Impeller		Q = DELIVERY													
		Ø mm	○ ● (1)	l/s	0	3,6	6,1	8,6	11,1	13,6	16,1	18,6	21,1	24,2	26,7	28,9	31,1
				m³/h	0	13	22	31	40	49	58	67	76	87	96	104	112
				H = TOTAL HEAD METRES COLUMN OF WATER													
50-125/30	3	105	○	21,8	20,8	20,2	19,5	18,5	17,1	15,3	13,0	10,4					
50-125/40	4	118	○	27,7		25,8	25,2	24,3	23,2	21,7	19,9	17,6	14,3				
50-125/55	5,5	130	○	33,7		31,8	31,1	30,3	29,4	28,1	26,6	24,7	21,8	19,1			
50-125/75	7,5	135	●	38,0		36,1	35,5	34,8	33,9	32,9	31,6	29,9	27,4	25,0	22,5		
50-160/55	5,5	127	○	33,5	32,5	32,0	31,3	30,4	29,1	27,3	25,0	22,2					
50-160/75	7,5	139	○	39,0		37,5	37,0	36,4	35,6	34,6	33,1	31,3	28,4				
50-160/92	9,2	154	○	49,7		47,9	47,3	46,6	45,7	44,5	43,0	41,1	38,1	35,2			
50-160/110	11	163	●	54,3		52,5	51,9	51,2	50,3	49,2	47,8	46,1	43,4	40,7	38,0		
50-200/92	9,2	165	○	52,8		52,4	51,7	50,5	48,9	46,9	44,4	41,5					
50-200/110A	11	165	○	52,8		52,4	51,7	50,5	48,9	46,9	44,4	41,5					
50-200/110	11	177	○	58,0			57,0	55,9	54,4	52,5	50,2	47,4	43,5				
50-200/150	15	189	○	68,9			68,4	67,7	66,7	65,3	63,6	61,6	58,6	55,7	52,9		
50-200/185	18,5	199	●	77,3			76,9	76,2	75,1	73,6	71,8	69,6	66,5	63,4	60,4	57,2	
50-250/185	18,5	210	○	89,9				87,6	86,1	84,1	81,6	78,6	74,3	70,2			
50-250/220	22	225	●	100,7				98,6	97,3	95,5	93,2	90,5	86,5	82,7	79,0		

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

LNT-32-40-50_2p60P-en_a_th

(1) ● = Full impeller diameter - ○ = Trimmed impeller diameter

*Available also in single-phase version.

e-LNT 65, 80, 100 SERIES (PARALLEL OPERATION) HYDRAULIC PERFORMANCE TABLE AT 60 Hz, 2 POLES

PUMP TYPE	P _N kW	Impeller		Q = DELIVERY													
		Ø mm	○ ● (1)	l/s	0	9,7	14,2	18,6	23,1	27,5	31,9	36,4	40,8	45,3	49,7	54,2	58,3
				m ³ /h	0	35	51	67	83	99	115	131	147	163	179	195	210
H = TOTAL HEAD METRES COLUMN OF WATER																	
65-125/55	5,5	118	○	26,0		24,0	23,0	21,7	20,0	17,8	15,2						
65-125/75	7,5	130	○	33,0			29,5	28,3	26,7	24,6	22,0	19,0					
65-125/92	9,2	140	○	38,5			34,8	33,7	32,3	30,4	28,0	25,0	21,4				
65-125/110A	11	140	○	38,5			34,8	33,7	32,3	30,4	28,0	25,0	21,4				
65-125/110	11	144	●	40,8			37,1	36,0	34,6	32,8	30,5	27,6	24,2	20,3			
65-160/110	11	152	○	46,5			41,9	40,4	38,7	36,5	33,8	30,6					
65-160/150	15	170	○	58,5			53,7	52,3	50,8	48,9	46,7	44,0	40,8				
65-160/185	18,5	176	●	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	○	65,4			64,5	63,1	61,1	58,3	54,8	50,7	46,1				
65-200/220	22	195	○	73,8			73,1	71,9	70,1	67,6	64,4	60,7	56,3				
65-200/300	30	209	●	89,1				88,0	86,4	84,2	81,6	78,3	74,6	70,3	65,4		
65-250/220	22	202	○	80,6			79,3	77,7	75,2	71,8	67,4	62,1	55,9	49,1	41,9		
65-250/300	30	220	○	97,6			96,6	95,3	93,3	90,5	86,8	82,1	76,6	70,3	63,4	56,0	
65-250/370	37	232	●	108,7			107,9	106,8	105,1	102,6	99,3	95,1	90,1	84,3	77,7	70,6	63,5

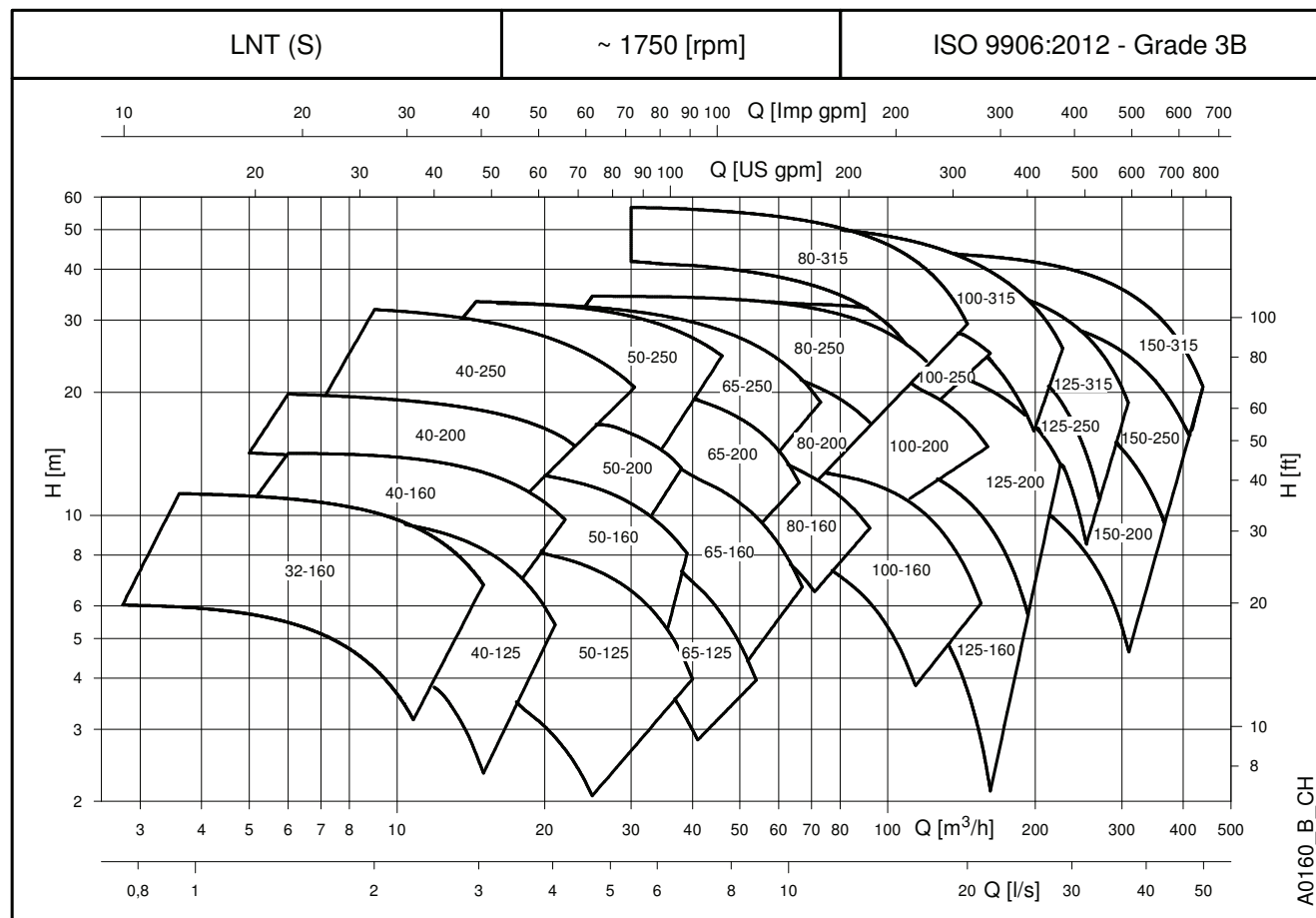
PUMP TYPE	P _N kW	Impeller		Q = DELIVERY													
		Ø mm	○ ● (1)	l/s	0	14,2	20,3	26,4	32,5	38,6	44,7	50,8	56,9	63,1	69,2	75,3	80,0
				m³/h	0	51	73	95	117	139	161	183	205	227	249	271	288
				H = TOTAL HEAD METRES COLUMN OF WATER													
80-160/150	15	151	○	45,4			42,8	42,0	40,8	39,0	36,7	33,9	30,6	27,0	23,4		
80-160/185	18,5	162	○	50,4			47,6	46,9	45,9	44,3	42,3	39,7	36,6	33,1	29,4		
80-160/220	22	168	●	56,3			53,4	52,8	51,9	50,6	48,8	46,5	43,7	40,4	36,8	33,0	30,0
80-200/220	22	173	○	60,2	60,0		59,5	58,4	56,8	54,4	51,4	47,9	43,8	39,5			
80-200/300	30	189	○	71,9			71,4	70,6	69,3	67,3	64,8	61,6	57,9	53,8	49,3		
80-200/370	37	199	●	79,8			79,5	78,9	77,7	76,0	73,7	70,9	67,5	63,6	59,3	54,6	

PUMP TYPE	P _N kW	Impeller		Q = DELIVERY													
		Ø	○	l/s	0	17,8	23,6	29,4	35,3	41,1	46,9	52,8	58,6	64,4	70,3	76,1	80,6
		mm	● (1)	m³/h	0	64	85	106	127	148	169	190	211	232	253	274	290
H = TOTAL HEAD METRES COLUMN OF WATER																	
100-160/185	18,5	144	○	39,4	36,7	35,7	34,8	34,0	33,3	32,6	31,6	30,4	28,5	25,8			
100-160/220	22	152	●	44,0			39,3	38,4	37,7	36,9	36,1	35,1	33,7	31,7	28,9	26,1	

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

LNT-65-80-100_2p60P-en_b_th

(1) ● = Full impeller diameter - ○ = Trimmed impeller diameter

e-LNT SERIES (SINGLE OPERATION)
HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 4 POLES


e-LNT 32, 40, 50 SERIES (SINGLE OPERATION)

HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 4 POLES

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY												
		Ø	○ ●	ηp %	l/s 0	0,8	1,1	1,4	1,7	1,9	2,2	2,5	2,8	3,1	3,3	3,6	4,2
					m³/h 0	3	4	5	6	7	8	9	10	11	12	13	15
		H = TOTAL HEAD METRES COLUMN OF WATER															
32-160/02	0,25	115	○	53,2	5,9	6,0	5,9	5,7	5,5	5,1	4,7	4,2	3,7				
32-160/03	0,37	134,5	○	58,0	8,7		8,7	8,5	8,3	8,0	7,6	7,2	6,7	6,2	5,6		
32-160/05	0,55	148	●	59,4	11,3		11,3	11,2	11,0	10,8	10,5	10,2	9,8	9,3	8,8	8,2	6,8

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY												
		Ø mm	○ ● (1)	ηp % (2)	l/s 0	0,6	1,4	1,9	2,8	3,3	4,2	4,7	5,6	6,1	6,9	7,5	8,3
					m³/h 0	2	5	7	10	12	15	17	20	22	25	27	30
					H = TOTAL HEAD METRES COLUMN OF WATER												
40-125/02	0,25	118	○	56,4	5,6		5,6	5,4	4,6	3,8	2,3						
40-125/03	0,37	128	○	58,2	7,0		7,1	6,8	6,2	5,6	4,3	3,2					
40-125/05	0,55	133	○	59,3	8,0		8,2	8,0	7,5	7,0	5,8	4,9					
40-125/07	0,75	145	●	61,0	9,6		10,0	9,9	9,6	9,1	8,2	7,5	6,0				
40-160/05	0,55	150	○	59,8	10,2		10,4	10,2	9,6	9,0	7,9	6,9					
40-160/07	0,75	160,5	○	61,0	12,0			12,3	11,9	11,4	10,5	9,7	8,3				
40-160/11	1,1	171	●	62,3	13,7			14,2	13,9	13,5	12,7	12,0	10,8	9,8			
40-200/11	1,1	186	○	53,0	16,7		16,1	15,8	15,3	14,8	13,9	13,1					
40-200/15	1,5	198	○	53,8	18,2			17,4	16,9	16,5	15,7	15,0	13,7				
40-200/22	2,2	205	●	54,9	20,4			19,7	19,2	18,8	18,0	17,4	16,3	15,4			
40-250/22	2,2	226,5	○	48,2	24,5				23,2	22,5	21,2	20,2	18,5	17,2	15,2		
40-250/30A	3	239	○	49,2	27,2				26,2	25,5	24,3	23,3	21,7	20,5	18,5	17,1	
40-250/30	3	252	○	49,9	29,3				28,3	27,6	26,4	25,5	23,9	22,7	20,8	19,4	
40-250/40	4	259	●	50,9	32,5				31,6	31,0	29,8	28,9	27,4	26,3	24,4	23,1	20,9

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY												
		Ø mm	○ ● (1)	ηp % (2)	l/s 0	1,7	2,8	3,9	5,0	6,1	7,2	8,3	9,4	10,6	11,2	12,2	12,8
					m³/h 0	6	10	14	18	22	26	30	34	38	40	44	46
					H = TOTAL HEAD METRES COLUMN OF WATER												
50-125/03	0,37	105	○	59,9	4,8	4,7	4,4	3,9	3,4	2,7							
50-125/05	0,55	118	○	63,3	6,4		6,0	5,6	5,1	4,5	3,7	2,8					
50-125/07	0,75	130	○	66,7	8,2		7,8	7,6	7,2	6,6	5,8	4,9	3,8				
50-125/11	1,1	135	●	66,9	9,2		8,8	8,6	8,3	7,8	7,3	6,5	5,7	4,6			
50-160/07	0,75	127	○	62,2	8,1	8,1	8,0	7,7	7,1	6,3	5,3	4,1					
50-160/11	1,1	139	○	63,6	9,7		9,6	9,4	8,9	8,3	7,4	6,2	5,0				
50-160/15A	1,5	154	○	65,5	12,0		12,0	11,9	11,6	11,0	10,3	9,4	8,2	7,0			
50-160/15	1,5	163	●	66,3	13,1		13,1	13,0	12,7	12,2	11,6	10,7	9,6	8,4			
50-200/15	1,5	177	○	58,4	14,4			13,8	13,1	12,3	11,3	10,0					
50-200/22	2,2	189	○	60,0	17,2			16,8	16,2	15,5	14,6	13,5	12,2				
50-200/30	3	199	●	61,1	19,2				18,3	17,6	16,8	15,9	14,7	13,1			
50-250/30	3	225	○	59,7	25,0			24,4	23,9	23,1	22,1	20,7	19,2	17,5			
50-250/40	4	243	○	61,3	29,9			29,4	28,9	28,3	27,4	26,2	24,8	23,3	22,3		
50-250/55	5,5	257,5	●	62,5	33,7				33,0	32,5	31,7	30,7	29,4	28,0	27,1	25,5	24,6

Hydraulic performances in compliance with ISO 9906:2012 - Grade 3B (ex ISO 9906:1999 - Annex A)
 (1) ● = Full impeller diameter - ○ = Trimmed impeller diameter (2) Hydraulic efficiency of pump.

LNT-32-40-50_4p60S-en_a_th

e-LNT 65, 80, 100 SERIES (SINGLE OPERATION)

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	2,8	4,4	6,1	7,8	9,4	11,1	12,8	14,4	16,1	17,8	19,4	20,3
					m³/h	0	10	16	22	28	34	40	46	52	58	64	70	73
					H = TOTAL HEAD METRES COLUMN OF WATER													
65-125/07	0,75	118	○	62,8	6,3	6,1	5,8	5,4	4,7	3,9	3,0							
65-125/11A	1,1	130	○	65,8	8,0		7,4	7,0	6,4	5,6	4,5	3,4						
65-125/11	1,1	140	○	68,0	9,3		8,8	8,5	7,9	7,1	6,1	4,9						
65-125/15	1,5	144	●	68,7	9,9		9,5	9,1	8,6	7,9	6,9	5,7	4,4					
65-160/11	1,1	144	○	64,7	10,1		9,4	8,9	8,3	7,5	6,4	5,1						
65-160/15	1,5	152	○	65,6	11,2		10,6	10,2	9,7	8,9	7,9	6,7	5,3					
65-160/22	2,2	170	○	67,6	14,1		13,5	13,1	12,6	12,0	11,2	10,2	8,9	7,5	6,0			
65-160/30	3	176	●	68,4	15,2		14,6	14,2	13,8	13,2	12,4	11,5	10,3	9,0	7,5			
65-200/22	2,2	168	○	64,0	14,1		14,1	13,5	12,7	11,7	10,3	8,5						
65-200/30A	3	179	○	65,1	16,1		16,3	15,7	14,9	14,0	12,8	11,3	9,2					
65-200/30	3	195	○	66,1	18,1		18,4	17,8	17,1	16,2	15,1	13,7	12,0					
65-200/40	4	209	●	68,2	21,8		22,3	21,8	21,2	20,3	19,3	18,2	16,8	15,1	12,9			
65-250/40	4	220	○	64,8	23,6		24,1	23,5	22,5	21,3	19,8	18,1	16,1	13,8				
65-250/55	5,5	232	○	65,8	26,4		27,1	26,5	25,7	24,6	23,2	21,6	19,8	17,7				
65-250/75	7,5	256	●	67,8	32,1		33,0	32,6	31,9	30,9	29,7	28,3	26,6	24,7	22,6	20,2	18,9	

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø mm	○ ● (1)	η _p % (2)	l/s	0	3,6	6,9	10,3	13,6	16,9	20,3	23,6	26,9	30,3	33,6	36,9	41,7
					m³/h	0	13	25	37	49	61	73	85	97	109	121	133	150
					H = TOTAL HEAD METRES COLUMN OF WATER													
80-160/22A	2,2	151	○	70,9	11,0			10,9	10,2	9,2	7,9							
80-160/22	2,2	162	○	71,8	12,2			12,1	11,5	10,6	9,3	7,7						
80-160/30	3	168	○	72,8	13,6			13,6	13,1	12,3	11,1	9,6						
80-160/40	4	180	●	74,2	15,6			15,7	15,3	14,5	13,4	12,1	10,4					
80-200/30	3	173	○	69,5	15,1	15,1	14,8	14,1	12,8	10,9								
80-200/40	4	189	○	71,0	18,0			17,7	17,2	16,1	14,5	12,3						
80-200/55A	5,5	199	○	71,9	20,0			19,9	19,4	18,5	17,1	15,1						
80-200/55	5,5	210	○	72,9	22,3			22,1	21,7	20,9	19,6	17,8	15,5					
80-200/75	7,5	220	●	73,9	24,5			24,3	23,9	23,2	22,1	20,4	18,3					
80-250/110A	11	243	○	72,3	29,9			30,5	30,4	29,8	28,9	27,7	26,0	24,0	21,5			
80-250/110	11	258	●	73,6	33,7			34,3	34,2	33,8	33,0	31,8	30,3	28,5	26,2			
80-315/150	15,0	292	○	64,1	42,8			42,0	41,2	39,9	38,1	36,0	33,4	30,3	26,3	20,9		
80-315/185	18,5	306	○	64,6	47,4			46,7	46,1	44,9	43,2	41,0	38,5	35,5	32,0	27,6	21,6	
80-315/220	22	322	○	65,3	52,9			52,3	51,8	50,8	49,2	47,1	44,6	41,6	38,3	34,4	29,7	
80-315/300	22	334	●	66,0	57,4			56,9	56,2	55,2	53,7	51,9	49,5	46,7	43,3	39,4	34,8	27,4

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø mm	○ ● (1)	η _p % (2)	l/s	0	5,6	11,1	13,9	18,1	22,2	26,4	31,9	36,1	41,7	54,2	56,9	62,5
					m³/h	0	20	40	50	65	80	95	115	130	150	195	205	225
					H = TOTAL HEAD METRES COLUMN OF WATER													
100-160/22	2,2	144	○	70,6	10,0			8,5	8,4	7,9	7,1	5,8						
100-160/30	3	152	○	71,5	11,2			9,6	9,5	9,1	8,4	7,3	5,4					
100-160/40	4	168	○	73,3	13,6			11,8	11,7	11,4	10,9	10,1	8,5	6,9				
100-160/55	5,5	177	●	74,4	15,2			13,3	13,1	12,9	12,5	11,9	10,5	9,0	6,7			
100-200/55	5,5	188	○	72,1	17,1			16,9	16,9	16,5	15,8	14,6	12,4					
100-200/75	7,5	201	○	73,3	19,5			19,4	19,3	19,1	18,5	17,6	15,6	13,7				
100-200/110	11	219	●	75,0	23,3			23,1	23,1	23,0	22,6	22,0	20,5	18,9	16,3			
100-250/75	7,5	214	○	71,8	22,8			22,4	22,3	21,9	21,1	19,9	17,6					
100-250/110A	11	227	○	72,8	25,7			25,4	25,4	25,1	24,5	23,5	21,5	19,6				
100-250/110	11	241	○	73,9	28,9			28,6	28,5	28,3	27,8	27,0	25,3	23,6				
100-250/150	15	259	●	75,4	33,5			33,1	33,1	32,9	32,6	32,0	30,6	29,2	26,7			
100-315/185	18,5	274	○	67,6	38,1			37,7	37,3	36,5	35,4	33,9	31,6	29,4	26,1	17,0		
100-315/220	22	286	○	67,7	42,0			41,7	41,4	40,7	39,6	38,2	35,8	33,7	30,5	21,4	18,7	
100-315/300	30	315	●	68,9	51,3			51,3	51,2	50,7	49,9	48,7	46,5	44,5	41,5	33,3	31,1	26,3

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

LNE-80-100_4p60S-en_b_th

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

e-LNT 125, 150 SERIES (SINGLE OPERATION)

HYDRAULIC PERFORMANCE TABLE AT 60 Hz, 4 POLES

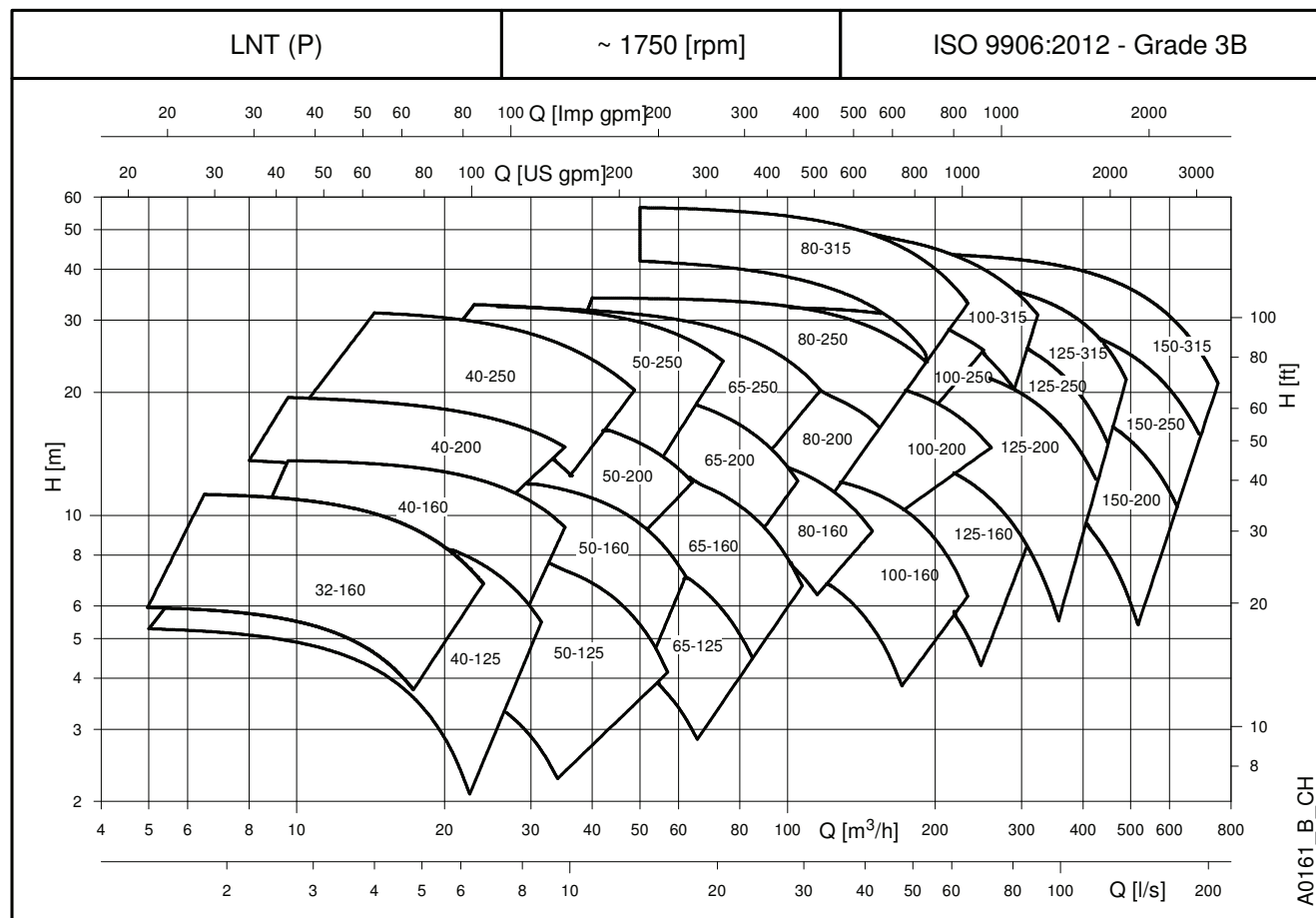
PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø mm	○ ● (1)	ηp % (2)	l/s	0	5,8	13,6	21,4	29,2	36,9	44,7	52,5	60,3	68,1	75,8	83,6	91,7
					m³/h	0	21	49	77	105	133	161	189	217	245	273	301	330
					H = TOTAL HEAD METRES COLUMN OF WATER													
125-160/40	4	148	○	64,2	8,8		8,7	8,1	6,8	4,8	2,2							
125-160/55	5,5	167	○	68,9	12,2		12,1	11,5	10,3	8,4	5,9							
125-160/75	7,5	184	●	73,5	15,2		15,1	14,5	13,5	11,8	9,4	6,3						
125-200/75	7,5	192	○	72,7	16,6		16,4	15,8	14,8	13,0	10,3	6,8						
125-200/110	11	217	○	75,3	22,0		21,7	21,3	20,4	18,9	16,8	13,9						
125-200/150	15	229	●	77,9	25,1		24,8	24,4	23,6	22,3	20,3	17,7	14,4					
125-250/150	15	241	○	75,4	27,6		27,6	27,0	26,0	24,3	22,1	19,0	15,0	10,0				
125-250/185	18,5	259	●	77,1	31,9		31,9	31,3	30,4	28,9	26,7	23,9	20,3	15,8				
125-315/220	22	260	○	75,4	33,1		33,2	32,6	31,6	30,2	28,5	26,3	23,5	20,0	15,6	10,1		
125-315/300	30	284	●	76,0	40,1		39,9	39,4	38,6	37,4	35,9	34,0	31,6	28,6	24,9	20,4	14,7	

PUMP TYPE	P _N kW	Impeller			Q = DELIVERY													
		Ø mm	○ ● (1)	ηp % (2)	l/s	0	12,2	22,2	32,2	42,2	52,2	62,2	72,2	82,2	92,2	102,2	112,2	121,9
					m³/h	0	44	80	116	152	188	224	260	296	332	368	404	439
					H = TOTAL HEAD METRES COLUMN OF WATER													
150-200/110	11	179	○	68,5	14,2	14,3	14,1	13,5	12,5	11,1	9,6	7,8	5,3					
150-200/150	15	204	○	73,0	19,0		18,6	18,0	17,2	16,1	14,6	12,7	10,5	8,0				
150-200/185	18,5	220	●	76,9	22,3		21,9	21,5	20,8	19,9	18,6	16,9	14,8	12,3				
150-250/220	22	235	○	77,2	25,9		25,8	25,5	24,8	23,7	22,1	20,2	17,8	15,0	11,9			
150-250/300	30	259	●	80,5	32,5		32,2	31,9	31,4	30,5	29,3	27,6	25,5	22,9	19,8	16,4		
150-315/370	37	280	○	76,7	38,9		39,0	38,9	38,5	38,0	37,3	36,3	35,1	33,5	31,7	29,5	26,8	
150-315/450	45	296	●	78,1	44,1		44,3	44,2	44,0	43,6	42,9	42,1	40,9	39,5	37,7	35,7	33,2	

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

LNT-125-150_4p60S-en_a_th

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

e-LNT SERIES (PARALLEL OPERATION)
HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 4 POLES


e-LNT 32, 40, 50 SERIES (PARALLEL OPERATION)

HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 4 POLES

PUMP TYPE	P _N kW	Impeller		Q = DELIVERY												
		Ø mm	○ ● (1)	l/s 0	1,4	1,7	2,2	2,8	3,3	3,6	4,2	4,7	5,3	5,8	6,4	6,7
				m³/h 0	5	6	8	10	12	13	15	17	19	21	23	24
				H = TOTAL HEAD METRES COLUMN OF WATER												
32-160/02	0,25	115	○	5,9	5,9	5,9	5,8	5,5	5,2	4,9	4,4	3,8				
32-160/03	0,37	134,5	○	8,8		8,7	8,5	8,2	7,9	7,7	7,2	6,7	6,0			
32-160/05	0,55	148	●	11,3			11,2	10,9	10,6	10,4	9,9	9,4	8,7	8,0	7,2	6,8

PUMP TYPE	P _N kW	Impeller		Q = DELIVERY												
		Ø	○ ●	l/s 0 m³/h 0	1,4 5	2,5 9	3,6 13	4,7 17	5,8 21	6,9 25	8,1 29	9,2 33	10,3 37	11,4 41	12,5 45	13,3 48
		mm	(1)	H = TOTAL HEAD METRES COLUMN OF WATER												
40-125/02	0,25	118	○	5,3	5,3	5,0	4,5	3,7	2,6							
40-125/03	0,37	128	○	6,5		6,3	5,8	5,1	4,1	2,9						
40-125/05	0,55	133	○	7,6		7,5	7,1	6,5	5,7	4,6						
40-125/07	0,75	145	●	9,4		9,5	9,3	8,8	8,2	7,3	6,3					
40-160/05	0,55	150	○	9,7		9,3	8,8	8,2	7,3	6,2						
40-160/07	0,75	160,5	○	11,7		11,7	11,4	11,0	10,4	9,6	8,5					
40-160/11	1,1	171	●	13,5			13,5	13,2	12,6	12,0	11,1	10,0				
40-200/11	1,1	186	○	16,3		15,5	15,0	14,4	13,7	12,8						
40-200/15	1,5	198	○	17,9		17,2	16,8	16,2	15,6	14,8	13,8					
40-200/22	2,2	205	●	20,1			19,1	18,6	18,0	17,3	16,4	15,3				
40-250/22	2,2	226,5	○	24,0			23,3	22,6	21,7	20,6	19,3	17,8	16,2			
40-250/30A	3	239	○	26,8			26,3	25,6	24,8	23,8	22,6	21,2	19,7	18,0		
40-250/30	3	252	○	28,8				27,6	26,8	25,8	24,6	23,3	21,8	20,2	18,4	
40-250/40	4	259	●	32,0				31,0	30,2	29,3	28,1	26,8	25,3	23,6	21,9	20,6

PUMP TYPE	P _N kW	Impeller		Q = DELIVERY												
		Ø	○ ●	l/s 0 m³/h 0	2,5 9	4,2 15	5,8 21	7,5 27	9,2 33	10,8 39	12,5 45	14,2 51	15,8 57	17,5 63	19,2 69	20,6 74
		mm	(1)	H = TOTAL HEAD METRES COLUMN OF WATER												
50-125/03	0,37	105	○	5,0	4,6	4,3	3,9	3,3	2,4							
50-125/05	0,55	118	○	6,4		5,6	5,3	4,8	4,1	3,2						
50-125/07	0,75	130	○	8,2		7,4	7,2	6,8	6,3	5,6	4,7	3,7				
50-125/11	1,1	135	●	9,3		8,5	8,3	8,0	7,5	6,9	6,2	5,2	4,1			
50-160/07	0,75	127	○	8,1		7,6	7,3	6,8	6,1	5,1	3,9	2,6				
50-160/11	1,1	139	○	9,6		9,1	8,8	8,4	7,8	6,9	5,9	4,6				
50-160/15A	1,5	154	○	12,1		11,6	11,4	11,1	10,7	10,0	9,2	8,1	6,9			
50-160/15	1,5	163	●	13,2		12,7	12,5	12,2	11,8	11,1	10,4	9,4	8,2			
50-200/15	1,5	177	○	14,3			13,5	12,9	12,2	11,3	10,2	8,9				
50-200/22	2,2	189	○	17,1				16,0	15,3	14,5	13,5	12,4	11,1			
50-200/30	3	199	●	19,1				18,1	17,5	16,8	15,9	14,9	13,7			
50-250/30	3	225	○	24,8			24,0	23,5	22,8	21,9	20,8	19,4	17,9			
50-250/40	4	243	○	29,6				28,3	27,7	26,9	26,0	24,8	23,4	21,8		
50-250/55	5,5	257,5	●	33,6				32,5	32,0	31,4	30,5	29,5	28,3	26,9	25,3	23,8

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

LNT-32-40-50_4p60P-en_a_th

(1) ● = Full impeller diameter - ○ = Trimmed impeller diameter

e-LNT 65, 80, 100 SERIES (PARALLEL OPERATION) HYDRAULIC PERFORMANCE RANGE AT 60 Hz, 4 POLES

PUMP TYPE	P _N kW	Impeller		Q = DELIVERY												
		Ø mm	○ ● (1)	l/s 0	4,2	6,7	9,2	11,7	14,2	16,7	19,2	21,7	24,2	26,7	29,2	32,2
				m³/h 0	15	24	33	42	51	60	69	78	87	96	105	116
H = TOTAL HEAD METRES COLUMN OF WATER																
65-125/07	0,75	118	○	6,4	6,0	5,7	5,3	4,8	4,2	3,4						
65-125/11A	1,1	130	○	8,1		7,3	6,9	6,5	5,9	5,1	4,2					
65-125/11	1,1	140	○	9,3		8,6	8,2	7,8	7,2	6,4	5,5	4,4				
65-125/15	1,5	144	●	10,0		9,2	8,9	8,5	8,0	7,3	6,4	5,4				
65-160/11	1,1	144	○	10,2		9,1	8,7	8,1	7,4	6,5	5,4	4,2				
65-160/15	1,5	152	○	11,4		10,4	10,0	9,5	8,9	8,1	7,1	5,9				
65-160/22	2,2	170	○	14,3		13,2	12,8	12,4	11,8	11,2	10,3	9,3	8,2	6,9		
65-160/30	3	176	●	15,5			14,0	13,6	13,1	12,5	11,7	10,8	9,7	8,5	7,1	
65-200/22	2,2	168	○	14,2		13,8	13,4	12,7	11,8	10,6	9,2					
65-200/30A	3	179	○	16,2		15,9	15,5	14,9	14,1	13,0	11,8	10,3				
65-200/30	3	195	○	18,1		17,8	17,5	16,9	16,1	15,2	14,0	12,6	11,0			
65-200/40	4	209	●	21,9			21,3	20,7	20,1	19,2	18,2	17,0	15,5	13,9	12,1	
65-250/40	4	220	○	24,3		23,6	23,1	22,5	21,6	20,5	19,2	17,6	15,8			
65-250/55	5,5	232	○	27,2		26,7	26,3	25,7	24,9	24,0	22,8	21,4	19,8	17,9		
65-250/75	7,5	256	●	33,1			32,1	31,6	30,9	30,1	29,1	27,8	26,4	24,8	22,9	20,4

PUMP TYPE	P _N kW	Impeller		Q = DELIVERY													
		Ø mm	○ ● (1)	l/s	0	5,8	11,9	18,1	24,2	30,3	36,4	40,3	46,4	52,8	58,9	65,0	72,2
				m³/h	0	21	43	65	87	109	131	145	167	190	212	234	260
				H = TOTAL HEAD METRES COLUMN OF WATER													
80-160/22A	2,2	151	○	11,4			10,5	9,8	8,6	6,9							
80-160/22	2,2	162	○	12,4			11,3	10,6	9,5	7,8							
80-160/30	3	168	○	14,1			13,1	12,6	11,6	10,2	8,3						
80-160/40	4	180	●	16,2			15,1	14,6	13,8	12,6	10,9	9,6					
80-200/30	3	173	○	14,9	14,9		14,4	13,3	11,9	10,0							
80-200/40	4	189	○	17,7			17,3	16,3	15,0	13,2							
80-200/55A	5,5	199	○	19,7			19,3	18,5	17,2	15,5	13,5						
80-200/55	5,5	210	○	22,0			21,7	20,9	19,8	18,2	16,3						
80-200/75	7,5	220	●	24,2			24,0	23,2	22,1	20,7	18,9	17,5					
80-250/110A	11	243	○	30,6			30,3	30,0	29,3	28,0	26,3	24,9	22,5				
80-250/110	11	258	●	34,4			34,0	33,7	33,1	32,0	30,4	29,2	26,8	24,0			
80-315/150	15,0	292	○	42,8			42,1	41,1	39,5	37,4	34,9	33,0	29,6	25,1	19,8		
80-315/185	18,5	306	○	47,5			46,9	46,0	44,5	42,4	39,9	38,0	34,6	30,5	25,9		
80-315/220	22	322	○	53,1			52,5	51,7	50,3	48,4	46,0	44,1	40,8	36,8	32,5	27,8	
80-315/300	22	334	●	57,5			56,9	56,1	54,9	53,2	50,9	49,2	46,0	42,0	37,7	32,9	27,0

PUMP TYPE	P _N kW	Impeller		Q = DELIVERY													
		Ø mm	○ ● (1)	l/s	0	10,8	18,1	25,3	32,5	39,7	46,9	54,2	61,4	68,6	75,8	83,1	89,7
				m³/h	0	39	65	91	117	143	169	195	221	247	273	299	323
				H = TOTAL HEAD METRES COLUMN OF WATER													
100-160/22	2,2	144	○	9,9	8,8	8,4	7,8	7,0	5,7	4,0							
100-160/30	3	152	○	10,9		9,3	8,8	8,1	6,9	5,4							
100-160/40	4	168	○	13,5		11,7	11,3	10,7	9,8	8,5	6,8						
100-160/55	5,5	177	●	15,2		13,3	12,9	12,4	11,6	10,5	9,1	7,3					
100-200/55	5,5	188	○	17,3		16,2	15,8	15,1	14,1	12,6							
100-200/75	7,5	201	○	19,9		18,8	18,5	18,0	17,1	15,9	14,4						
100-200/110	11	219	●	23,8		22,6	22,4	22,0	21,4	20,5	19,2	17,6	15,7				
100-250/75	7,5	214	○	23,0		21,8	21,5	20,9	19,8	18,2							
100-250/110A	11	227	○	26,0		24,7	24,4	23,9	23,0	21,7	19,8						
100-250/110	11	241	○	29,4		28,0	27,7	27,4	26,7	25,5	23,9	21,9					
100-250/150	15	259	●	34,1		32,5	32,3	32,0	31,5	30,7	29,5	27,8	25,7				
100-315/185	18,5	274	○	37,9		37,5	36,8	35,7	34,3	32,5	30,4	28,0	25,2	22,3			
100-315/220	22	286	○	41,7		41,4	40,8	39,8	38,5	36,8	34,7	32,2	29,5	26,5	23,4		
100-315/300	30	315	●	51.1		51.0	50.6	49.9	48.8	47.2	45.3	43.0	40.4	37.5	34.3	31.1	

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

LNE-65-80-100_4p60P-en_b_th

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

e-LNT 125, 150 SERIES (PARALLEL OPERATION)

HYDRAULIC PERFORMANCE TABLE AT 60 Hz, 4 POLES

PUMP TYPE	P _N kW	Impeller		Q = DELIVERY													
		Ø mm	○ ● (1)	l/s	0	11,7	23,1	34,4	45,8	57,2	68,6	80,0	91,4	102,8	114,2	125,6	136,1
				m³/h	0	42	83	124	165	206	247	288	329	370	411	452	490
H = TOTAL HEAD METRES COLUMN OF WATER																	
125-160/40	4	148	○	8,8			8,8	8,5	7,6	6,3	4,9						
125-160/55	5,5	167	○	12,2			12,1	11,8	11,1	9,8	8,1						
125-160/75	7,5	184	●	15,3			15,2	14,9	14,3	13,1	11,5	9,5					
125-200/75	7,5	192	○	16,7			16,5	16,3	15,7	14,6	12,9	10,6	7,7				
125-200/110	11	217	○	22,1			21,8	21,5	21,0	20,1	18,7	16,9	14,7	12,1			
125-200/150	15	229	●	25,2			24,9	24,6	24,1	23,3	22,0	20,4	18,3	15,9	13,4		
125-250/150	15	241	○	27,6			27,5	27,2	26,5	25,4	23,8	21,8	19,4	16,6	13,5		
125-250/185	18,5	259	●	31,9			31,8	31,5	30,9	29,9	28,4	26,6	24,2	21,5	18,5		
125-315/220	22	260	○	33,1			33,0	32,5	31,8	30,8	29,5	27,8	25,8	23,6	21,0	18,1	
125-315/300	30	284	●	40,1			39,8	39,4	38,8	38,0	36,9	35,5	33,7	31,5	28,7	25,4	21,7

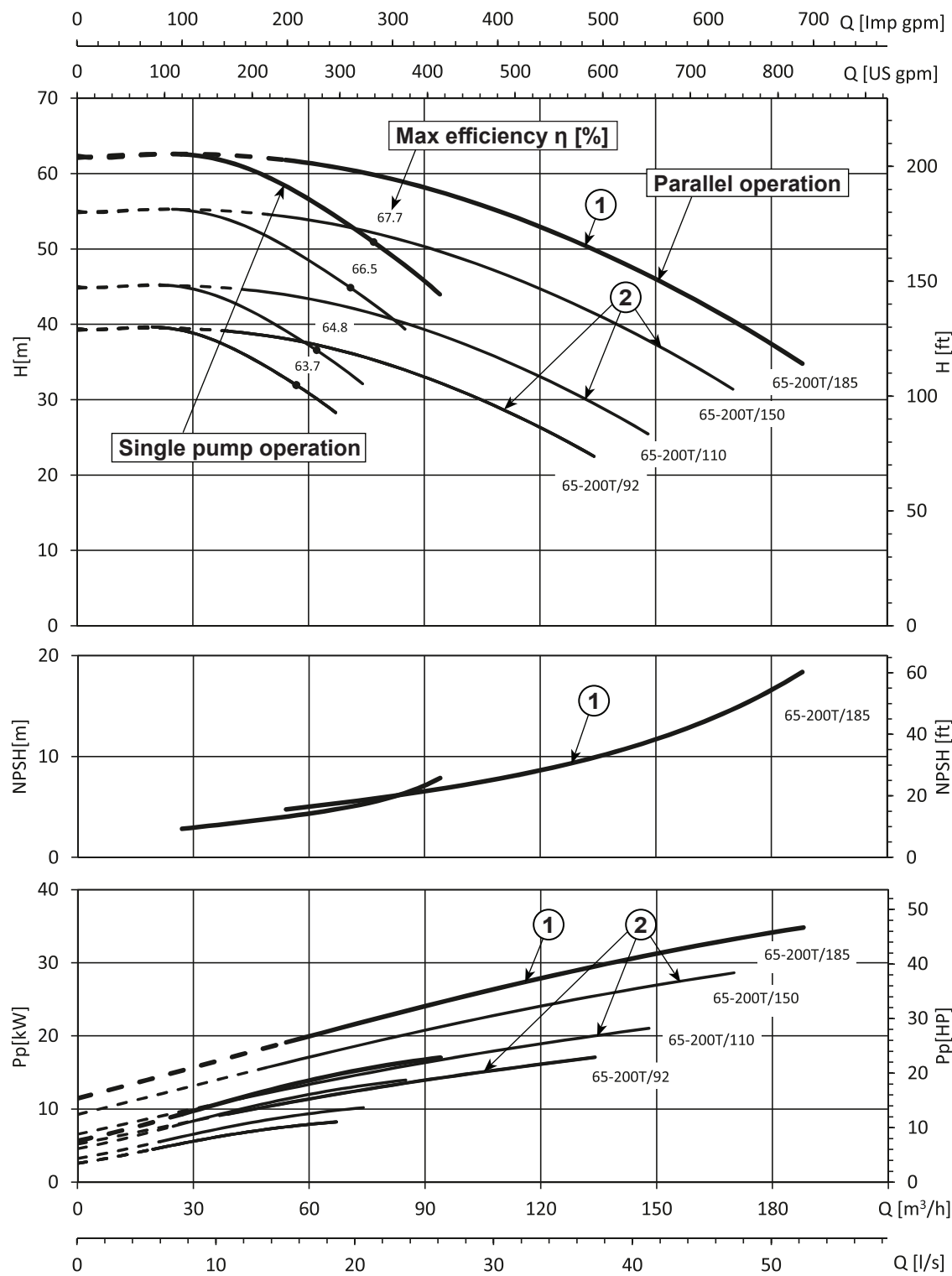
PUMP TYPE	P _N kW	Impeller		Q = DELIVERY													
		Ø mm	○ ● (1)	l/s	0	24,7	41,4	58,1	74,7	91,4	108,1	124,7	141,4	158,1	174,7	191,4	209,4
				m³/h	0	89	149	209	269	329	389	449	509	569	629	689	754
				H = TOTAL HEAD METRES COLUMN OF WATER													
150-200/110	11	179	○	14,1		14,1	14,0	13,5	12,7	11,6	10,0	8,1					
150-200/150	15	204	○	19,3			18,4	17,9	17,1	16,1	14,7	13,0	11,0				
150-200/185	18,5	220	●	22,4			21,6	21,1	20,4	19,5	18,3	16,8	15,0	12,7			
150-250/220	22	235	○	26,3			25,6	25,2	24,4	23,3	21,7	19,8	17,4	14,7			
150-250/300	30	259	●	32,6			32,0	31,5	30,7	29,7	28,3	26,6	24,4	21,9	19,0	15,7	
150-315/370	37	280	○	38,9				38,8	38,5	38,2	37,6	36,8	35,9	34,7	33,3	31,7	30,1
150-315/450	45	296	●	44,2				44,0	43,8	43,5	43,0	42,4	41,6	40,5	39,3	37,8	36,2

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

LNT-125-150_4p60P-en_a_th

(1) ● = Full impeller diameter - ○ = Trimmed impeller diameter

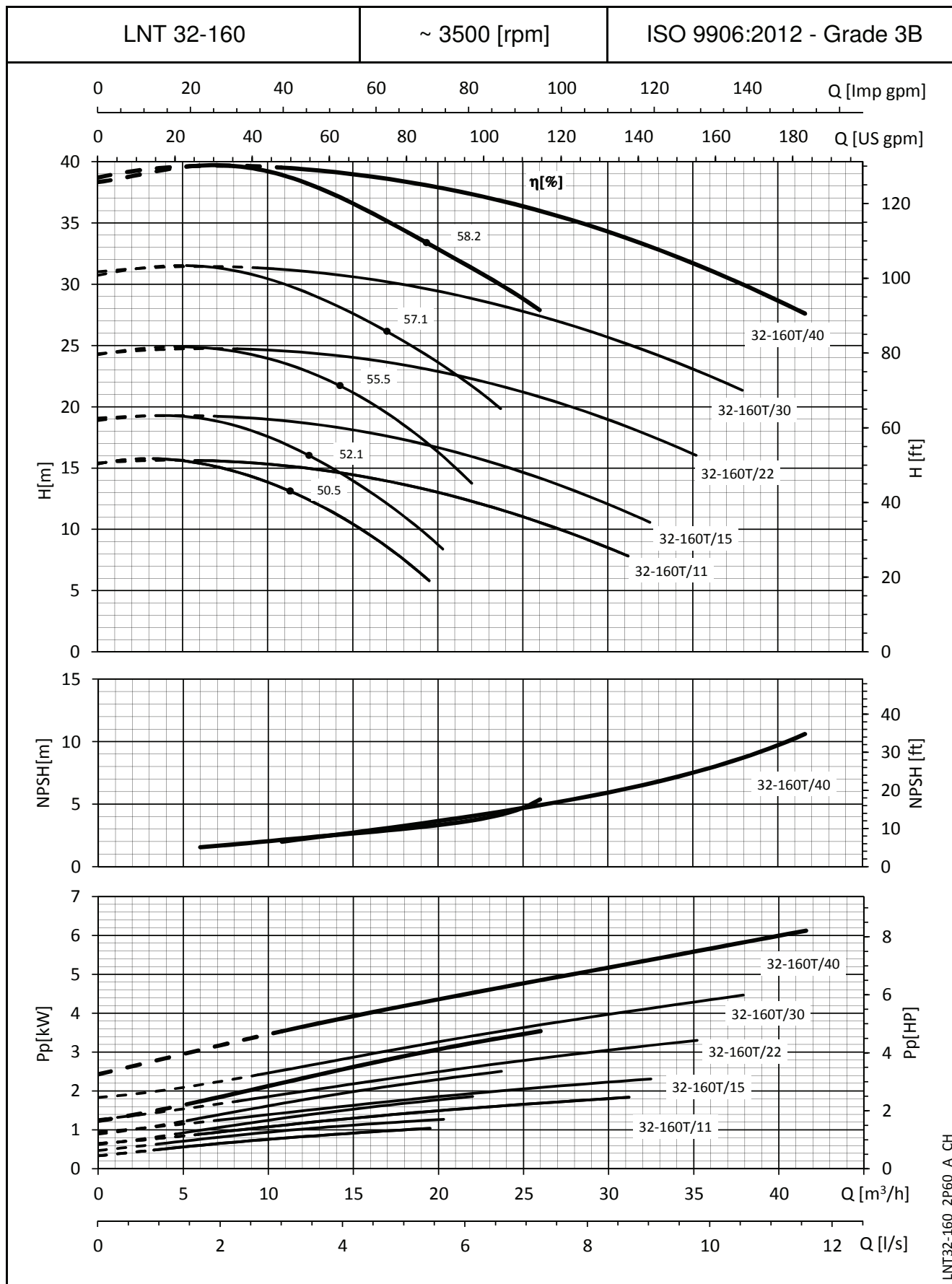
e-LNT SERIES
IDENTIFICATION OF GRAPH



REF	TYPE	DESCRIPTION
①		Full Diameter impeller operating range
②		Trimmed diameter impeller operating range

e-LNT SERIES

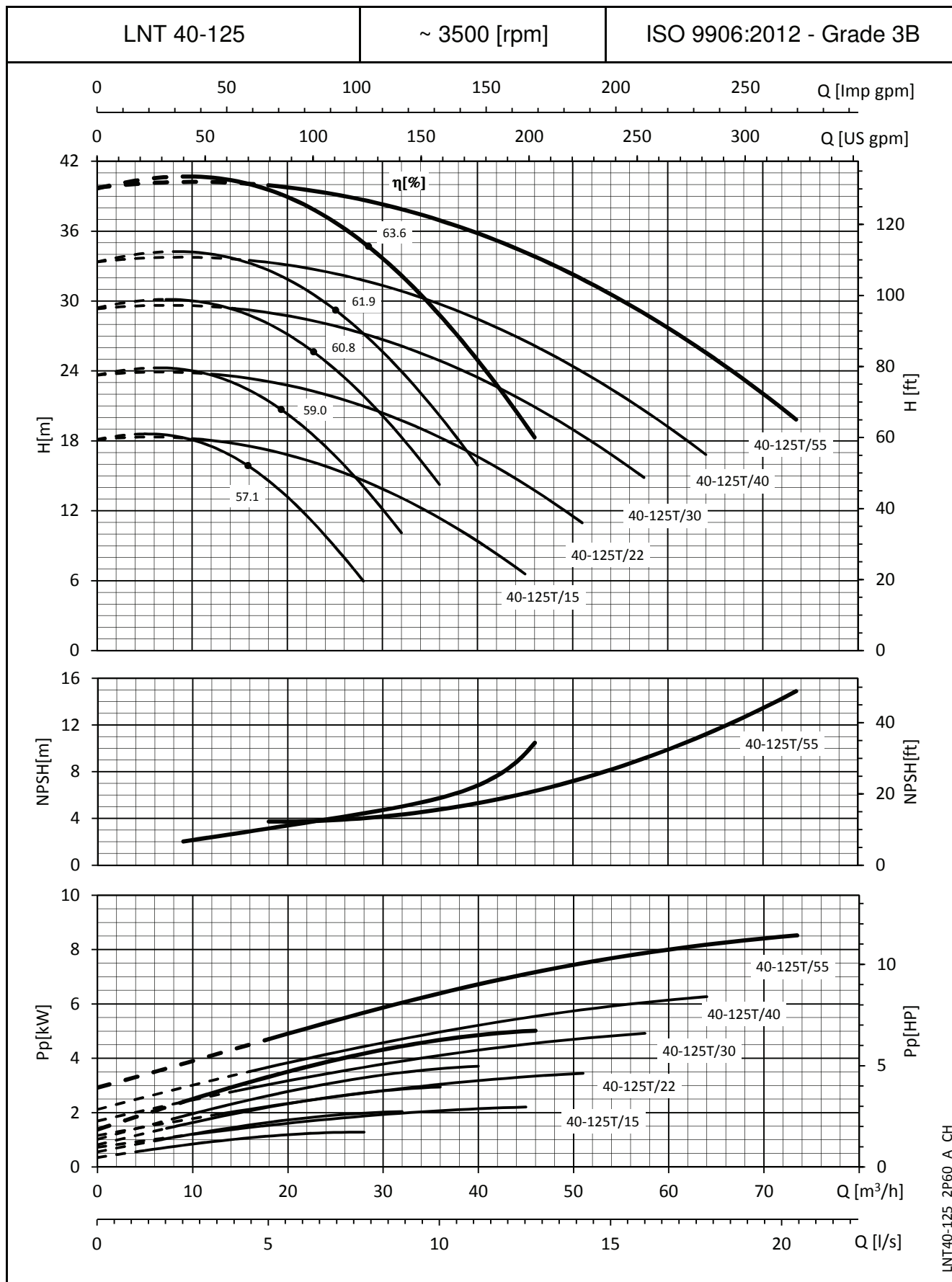
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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-LNT SERIES

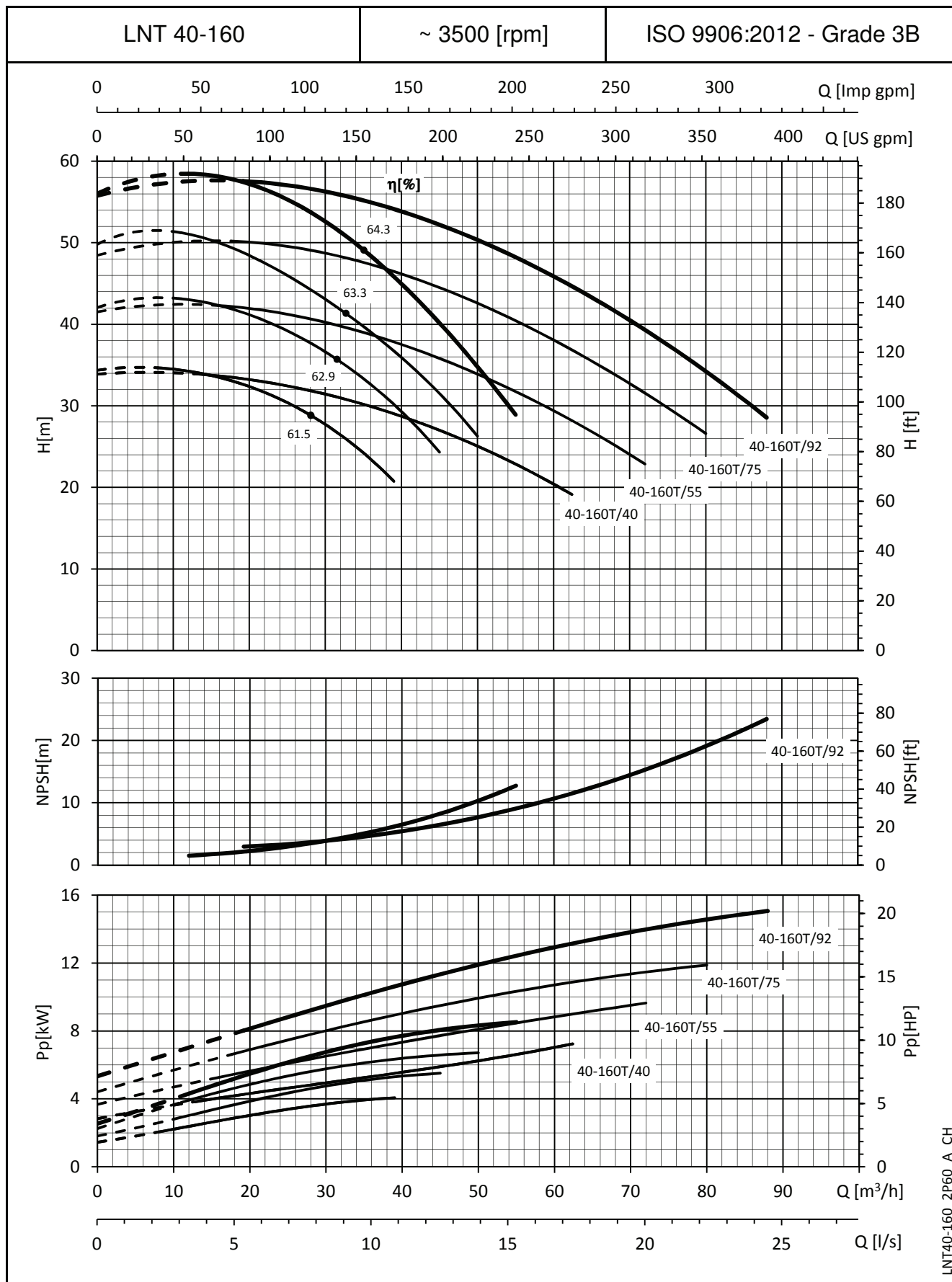
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e-LNT SERIES

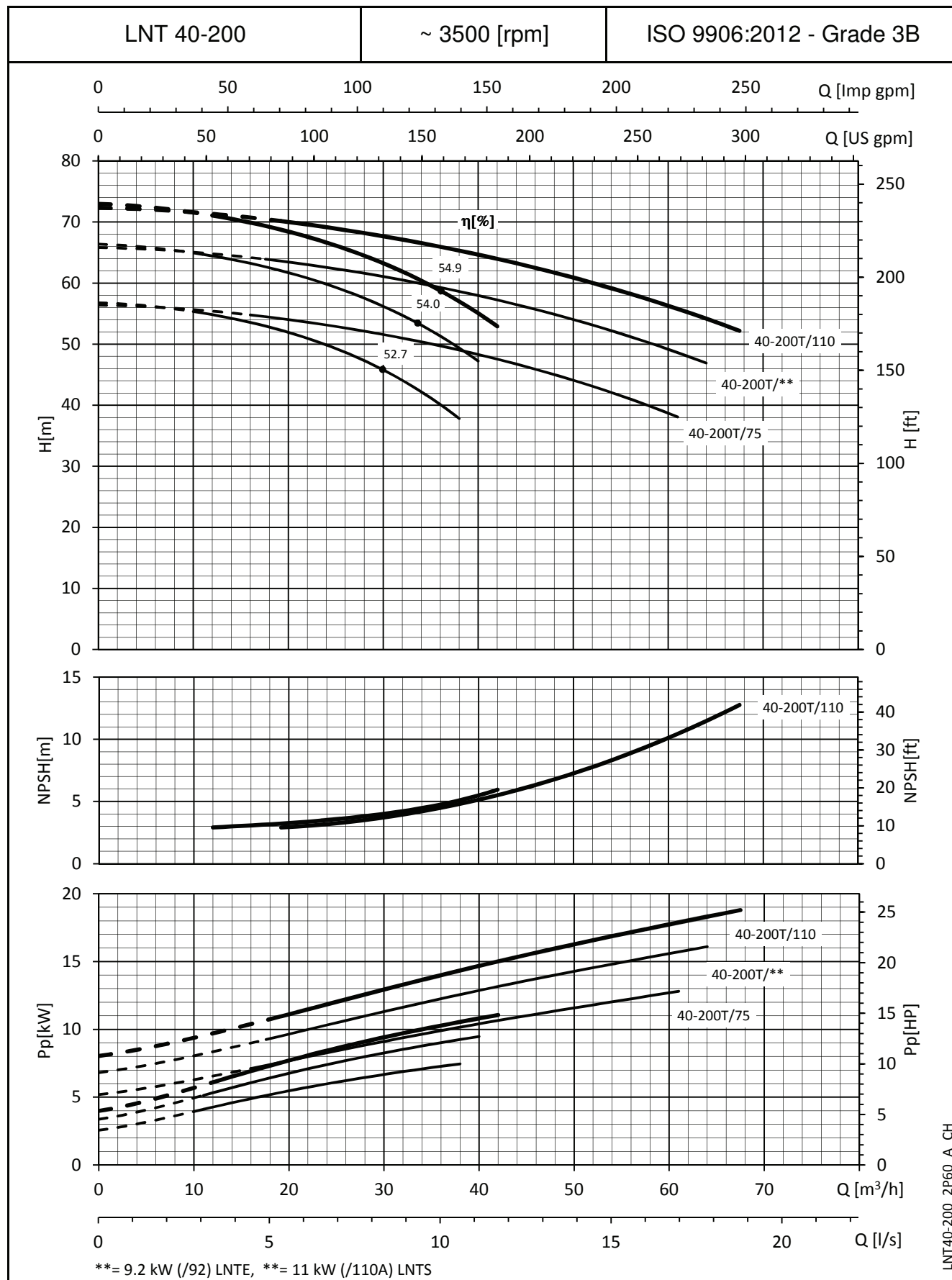
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNT SERIES

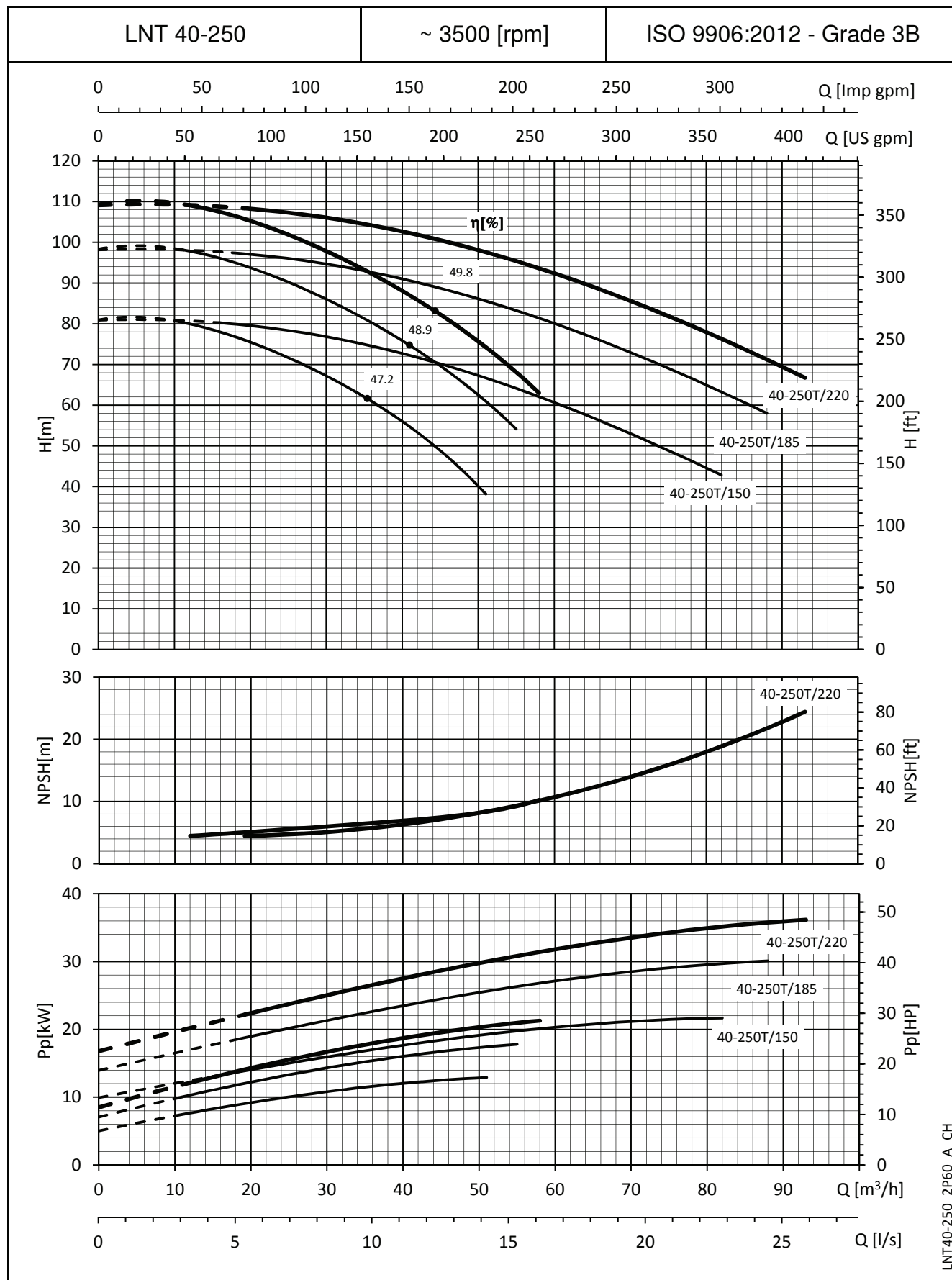
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNT SERIES

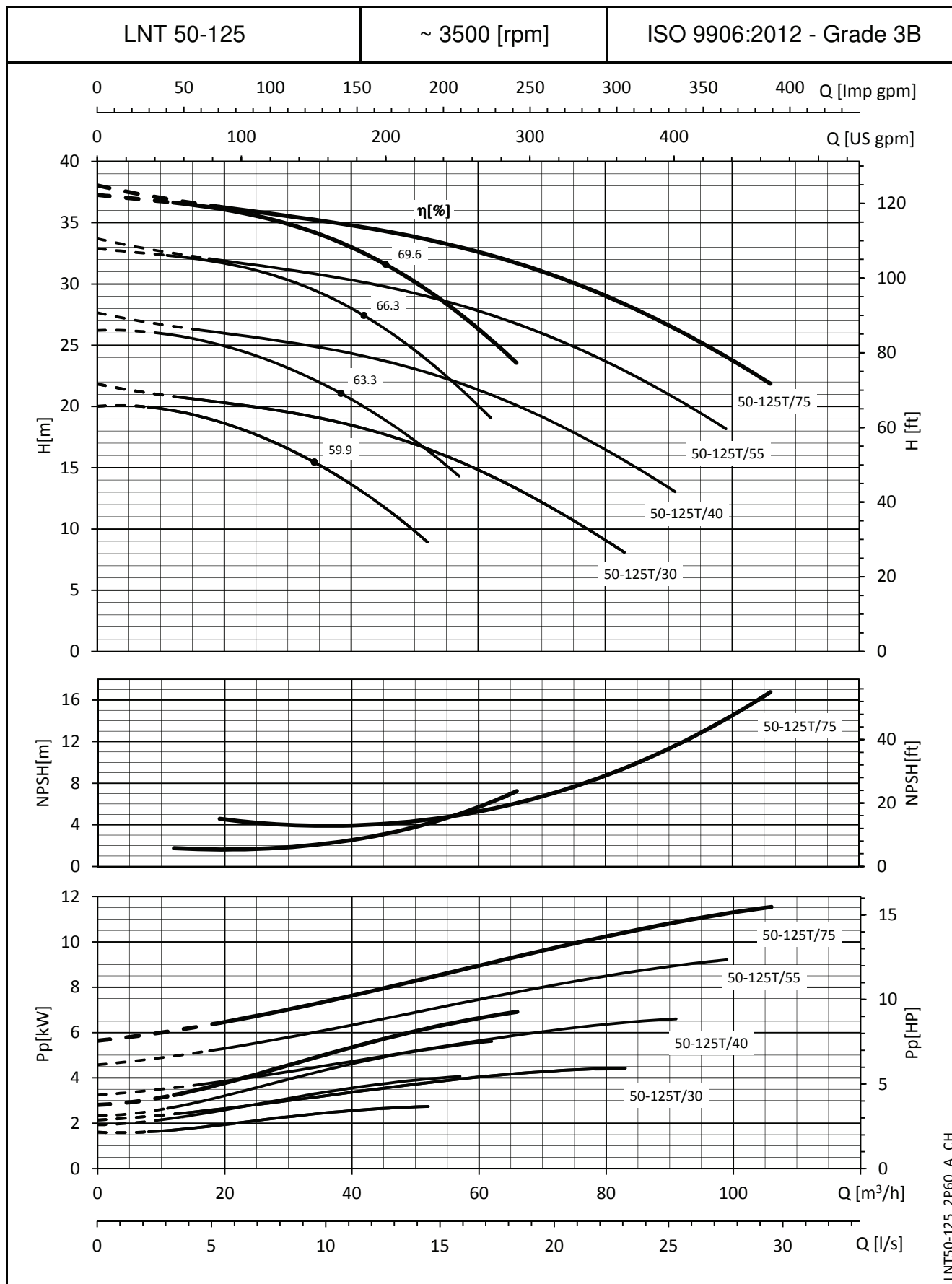
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNT SERIES

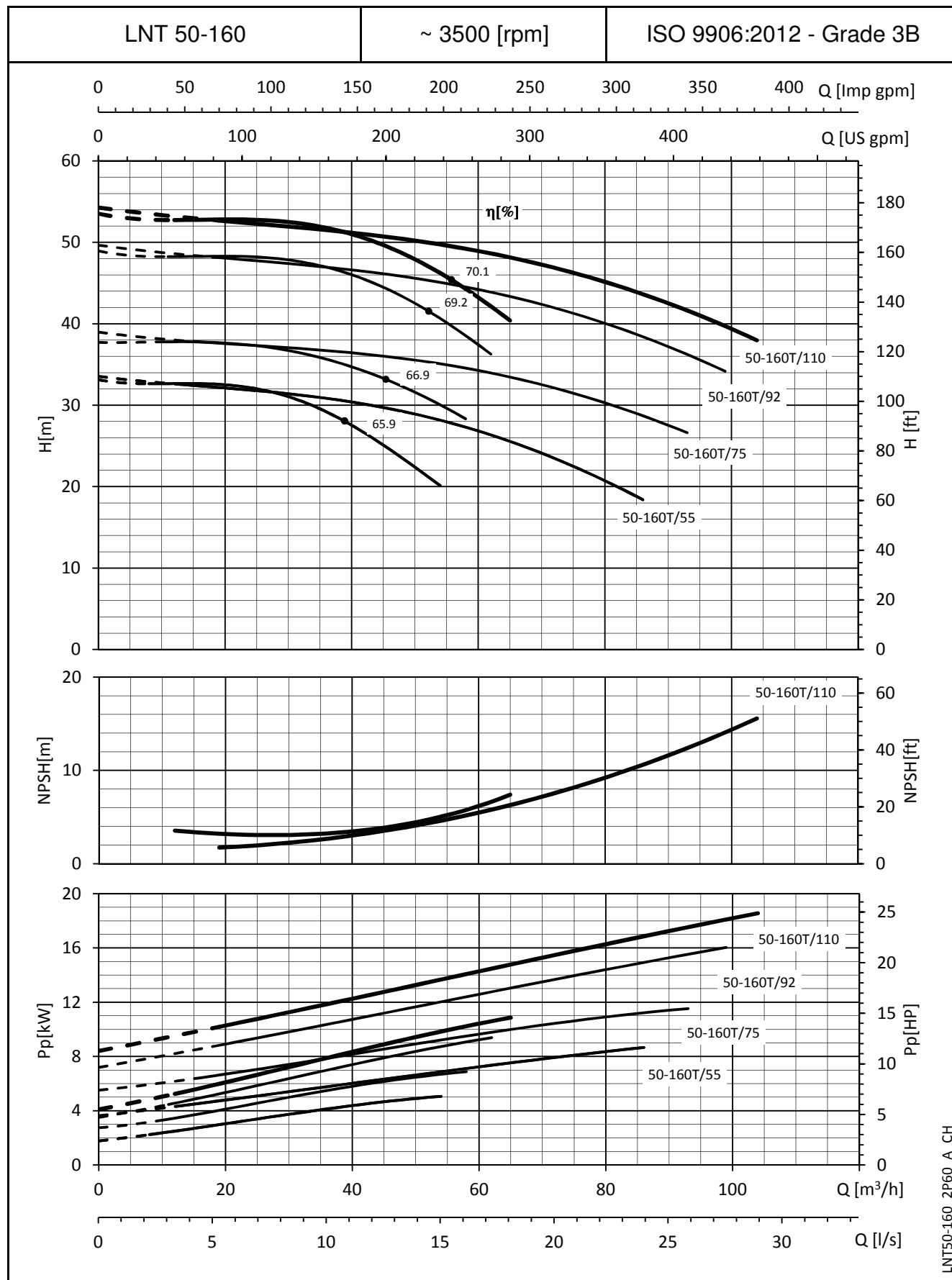
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNT SERIES

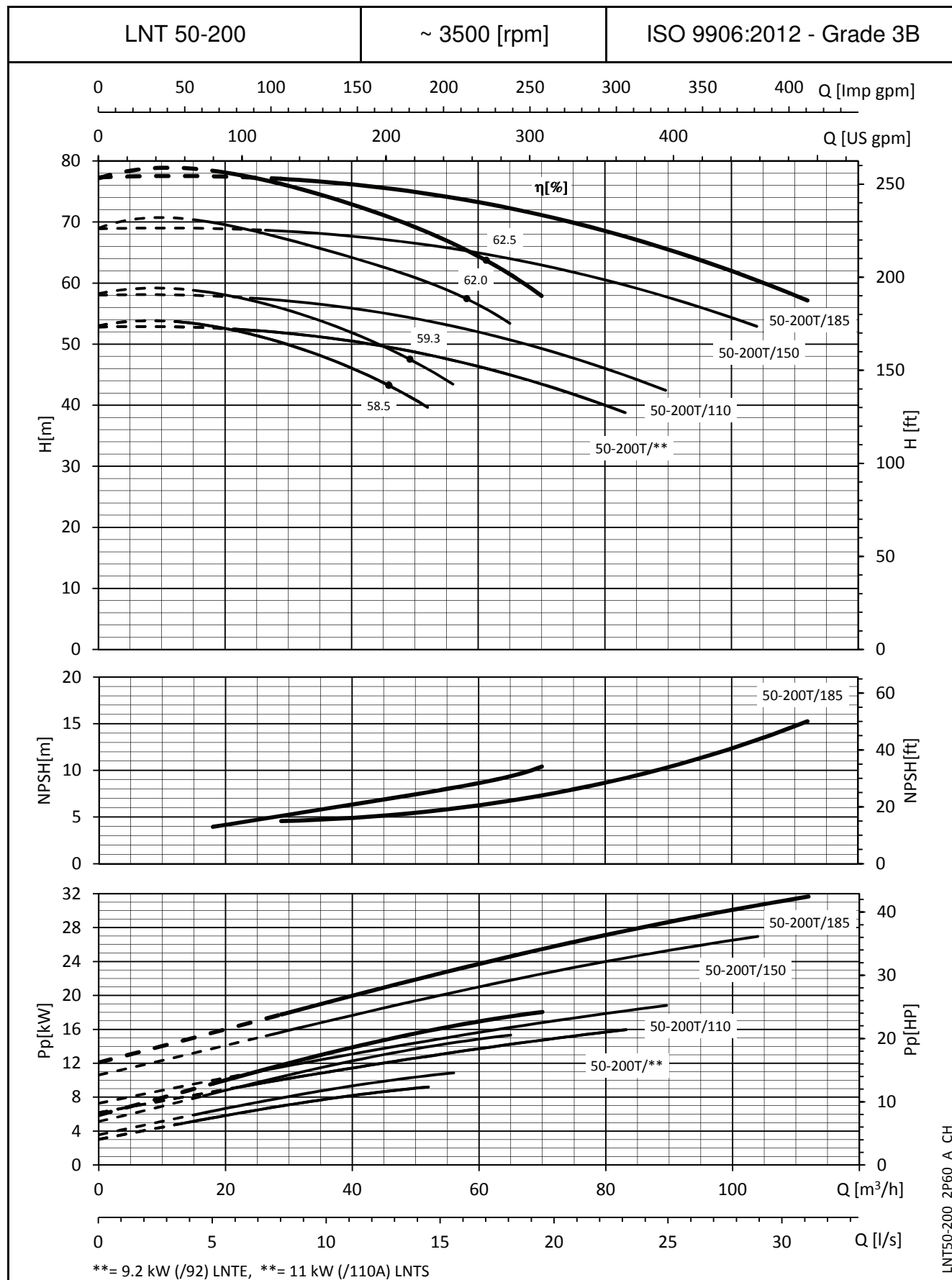
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNT SERIES

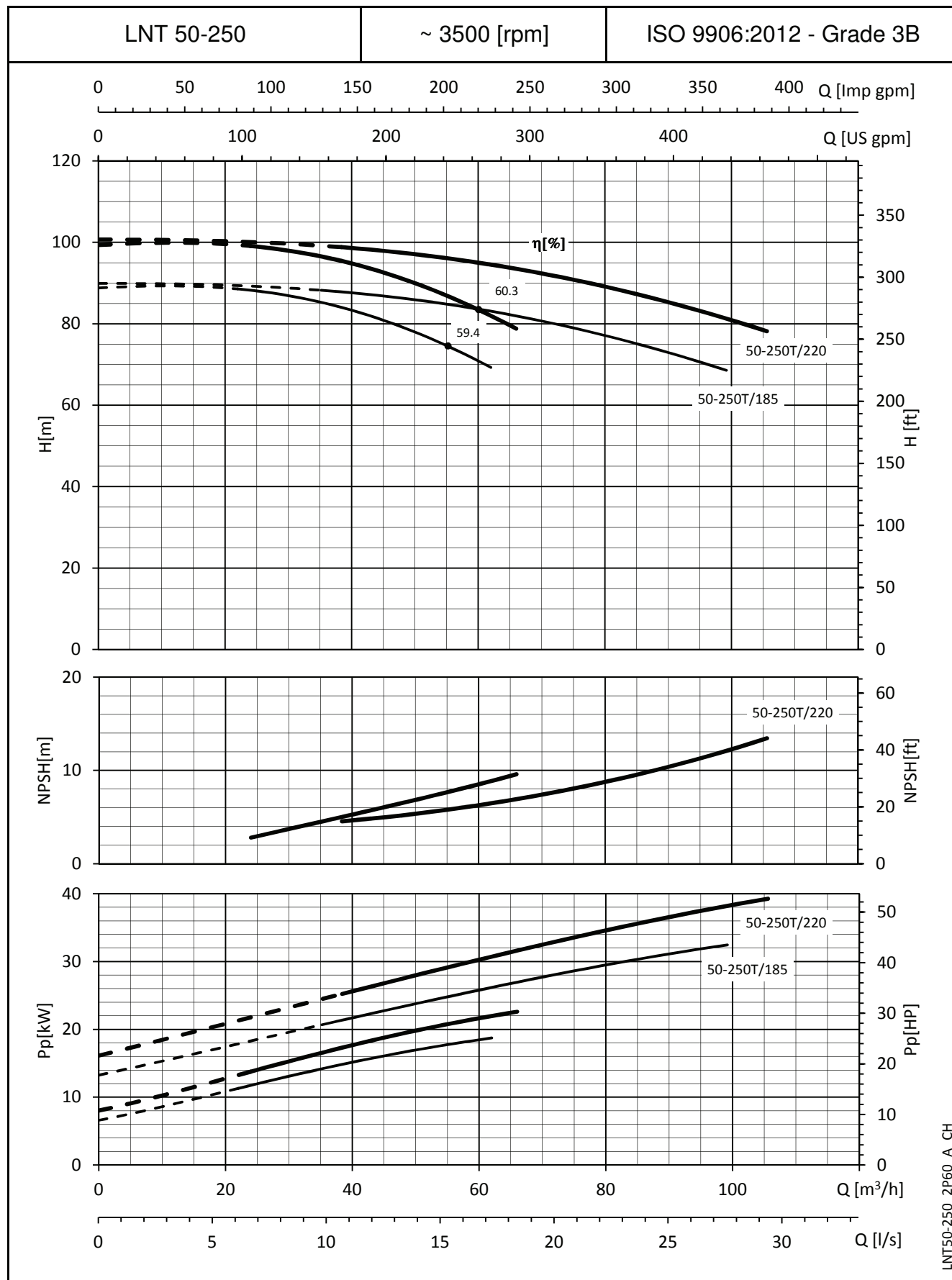
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNT SERIES

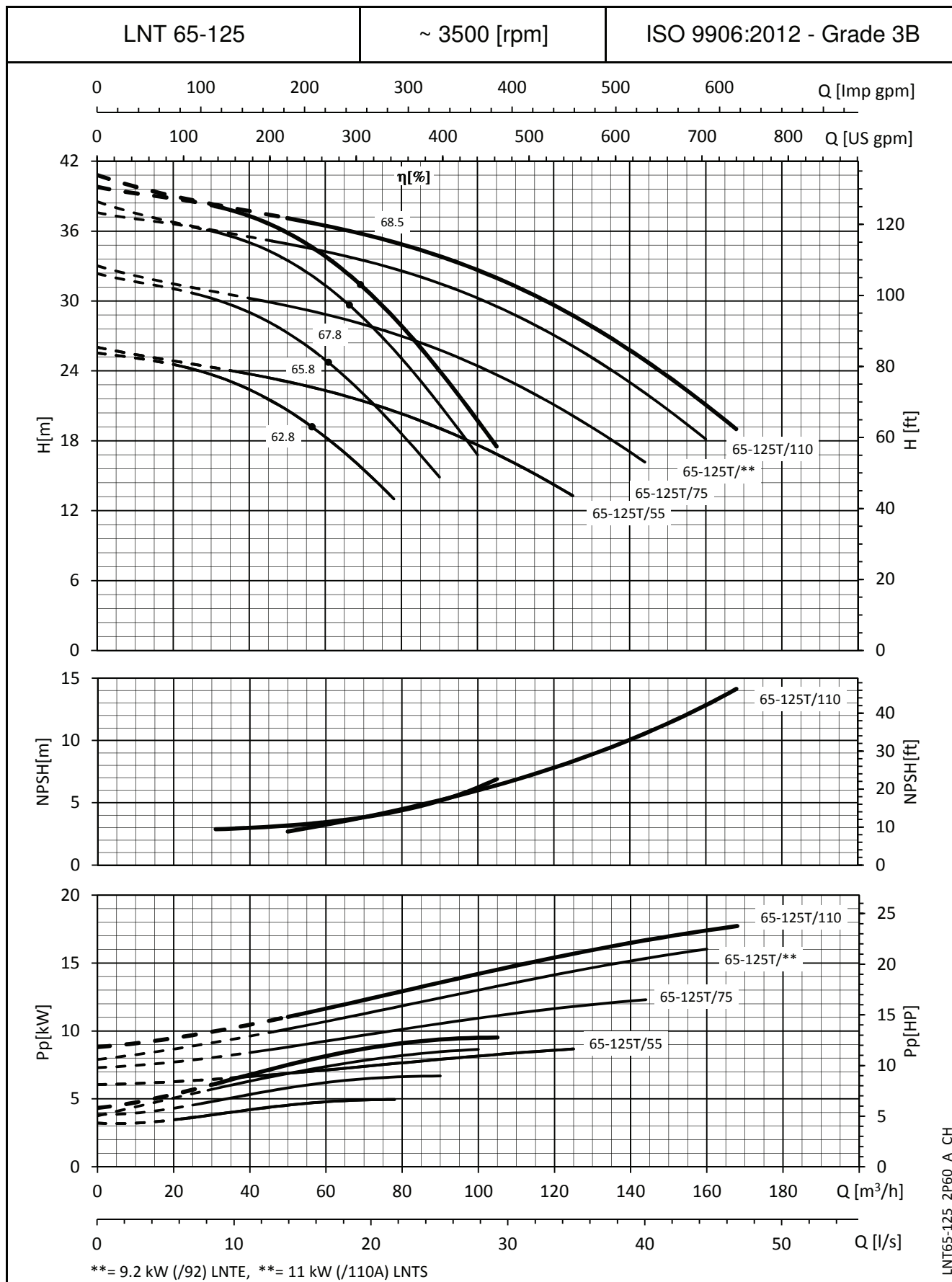
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNT SERIES

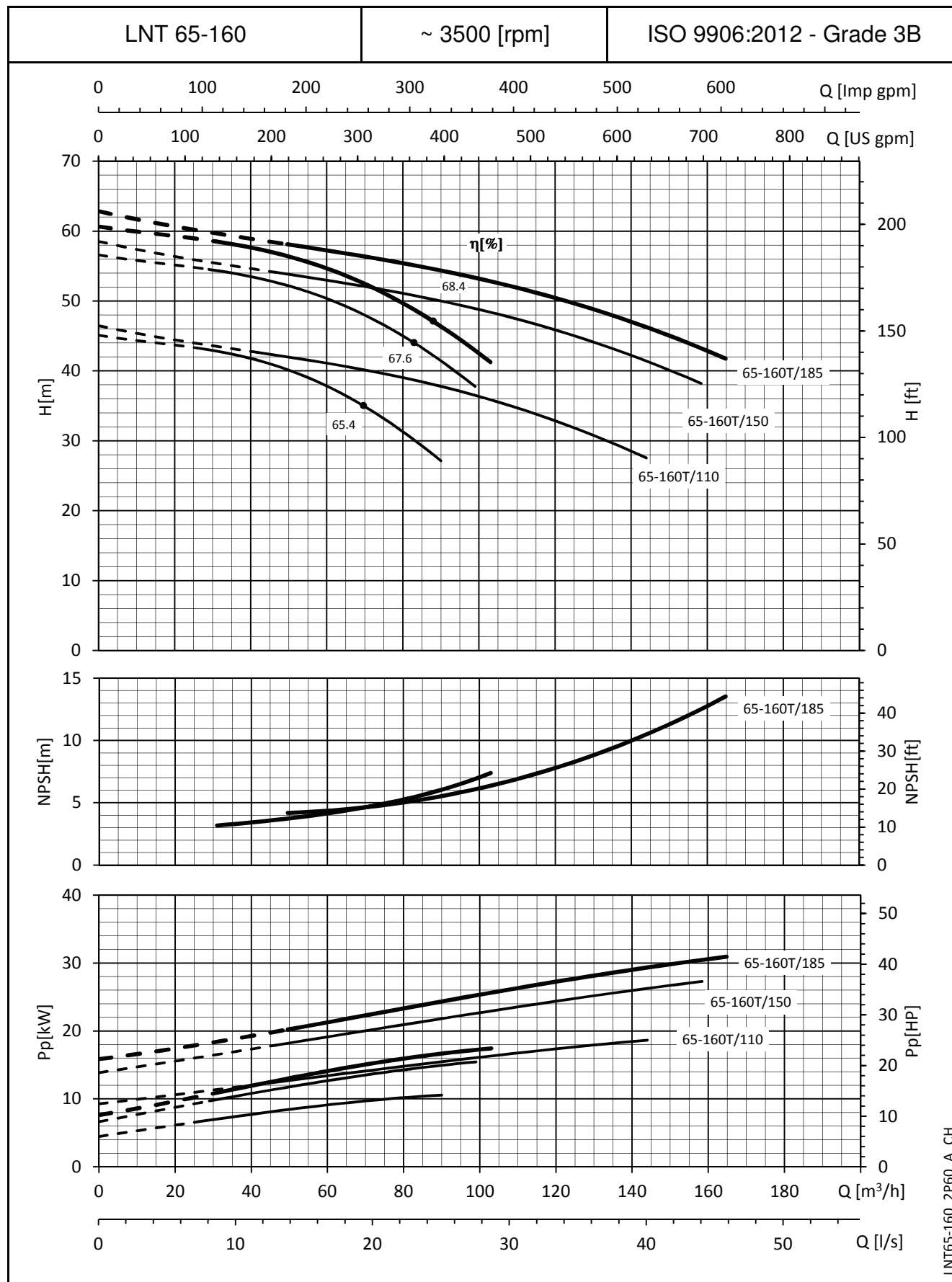
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e-LNT SERIES

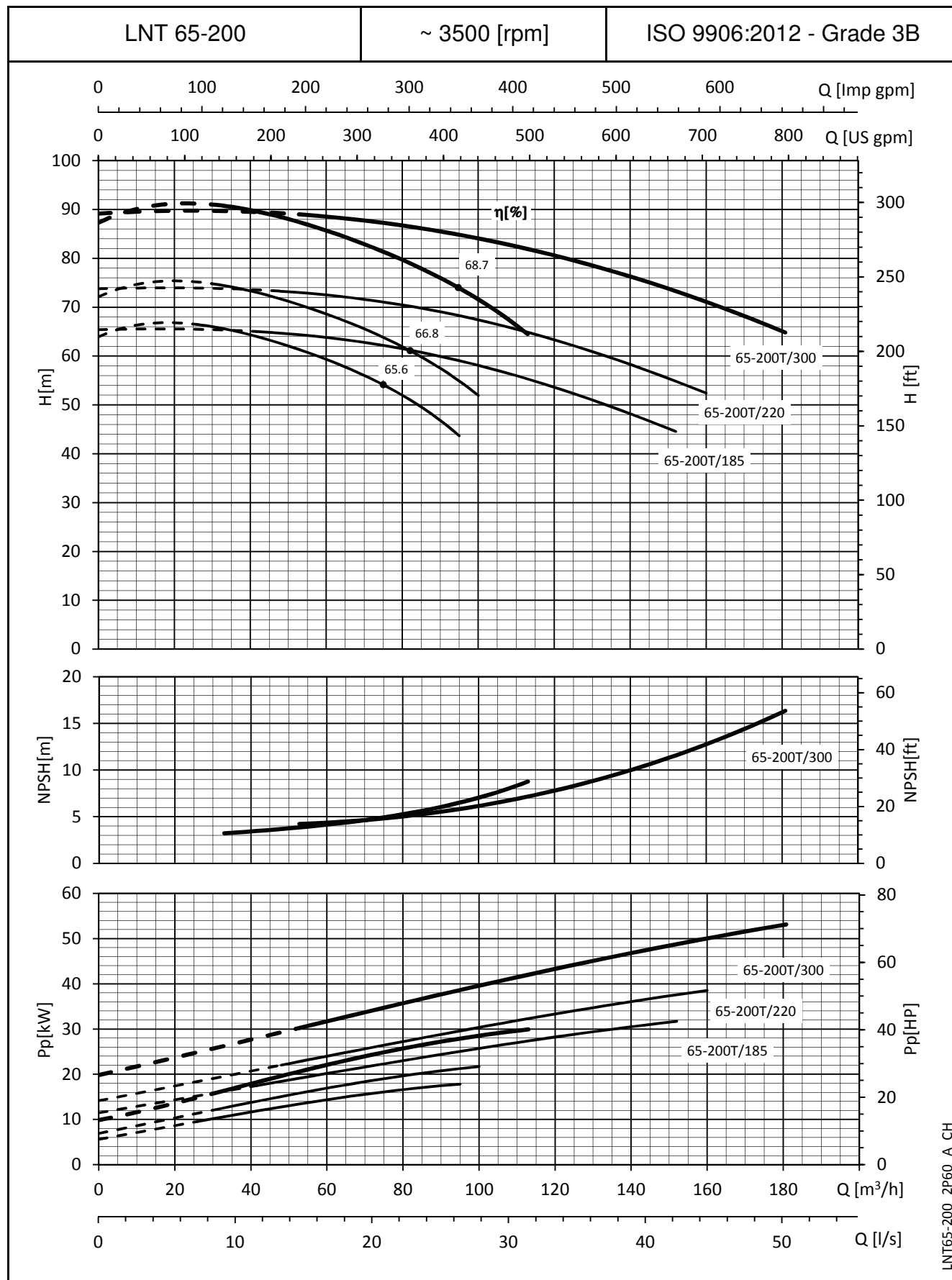
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e-LNT SERIES

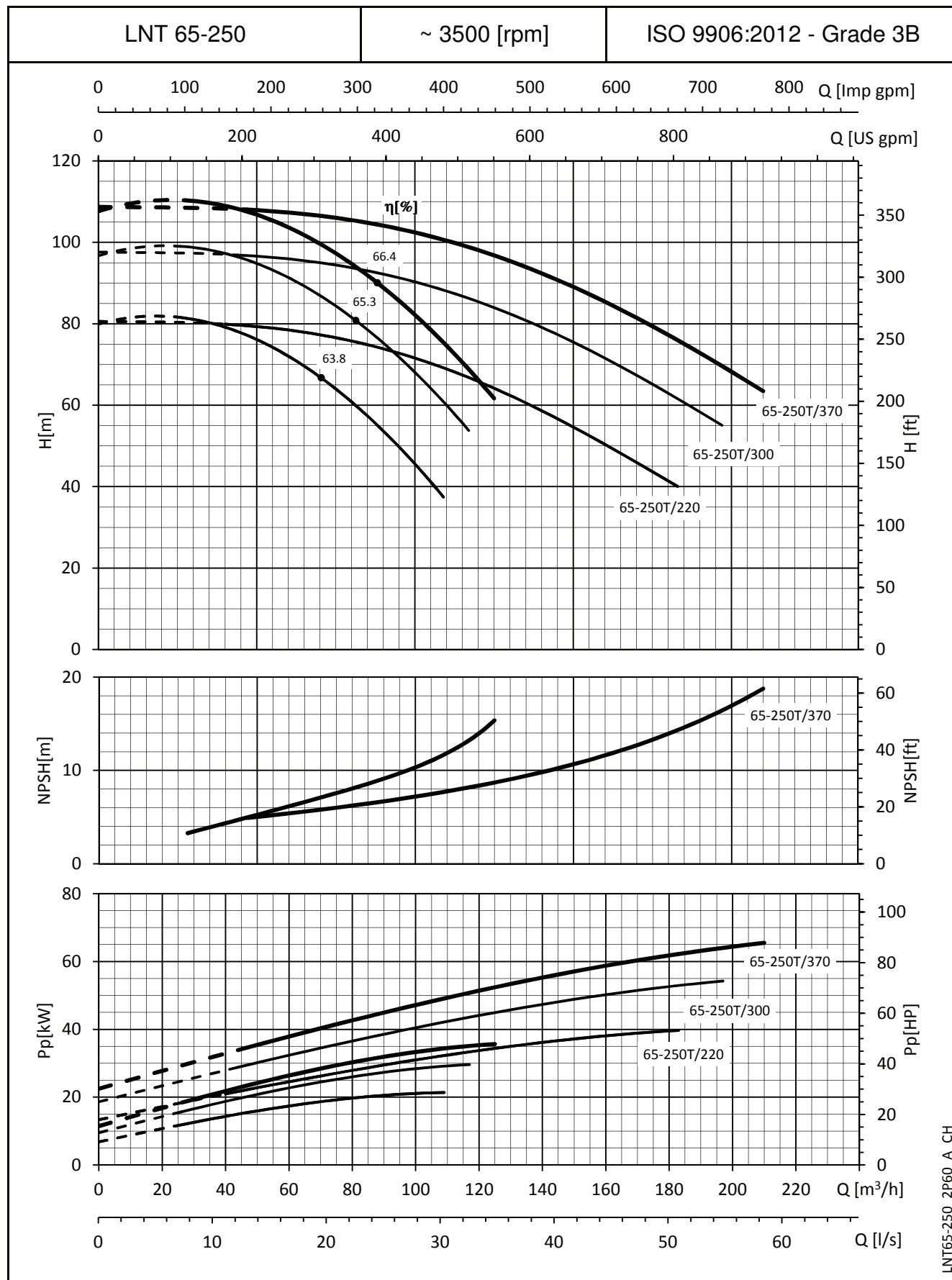
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e-LNT SERIES

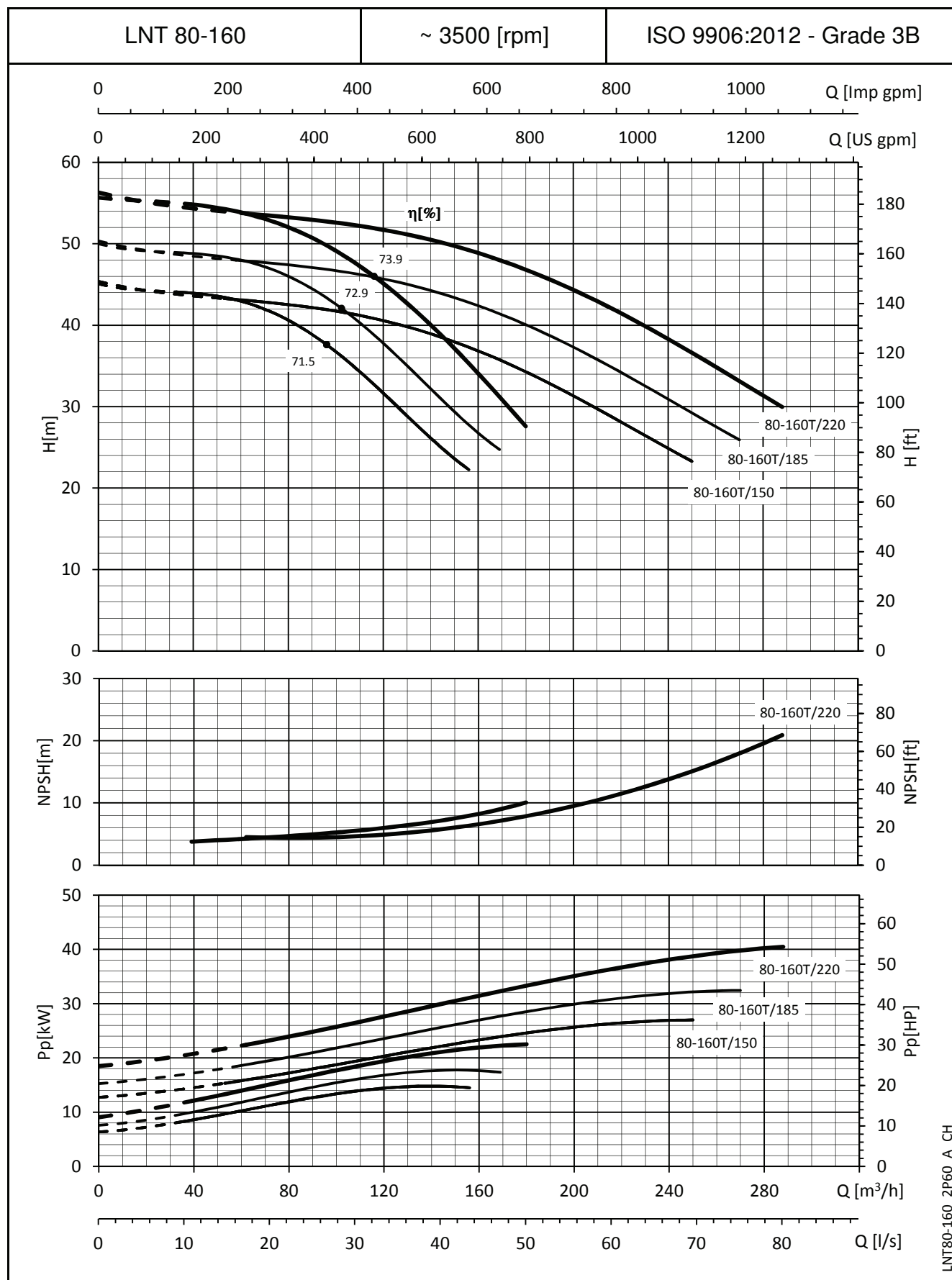
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNT SERIES

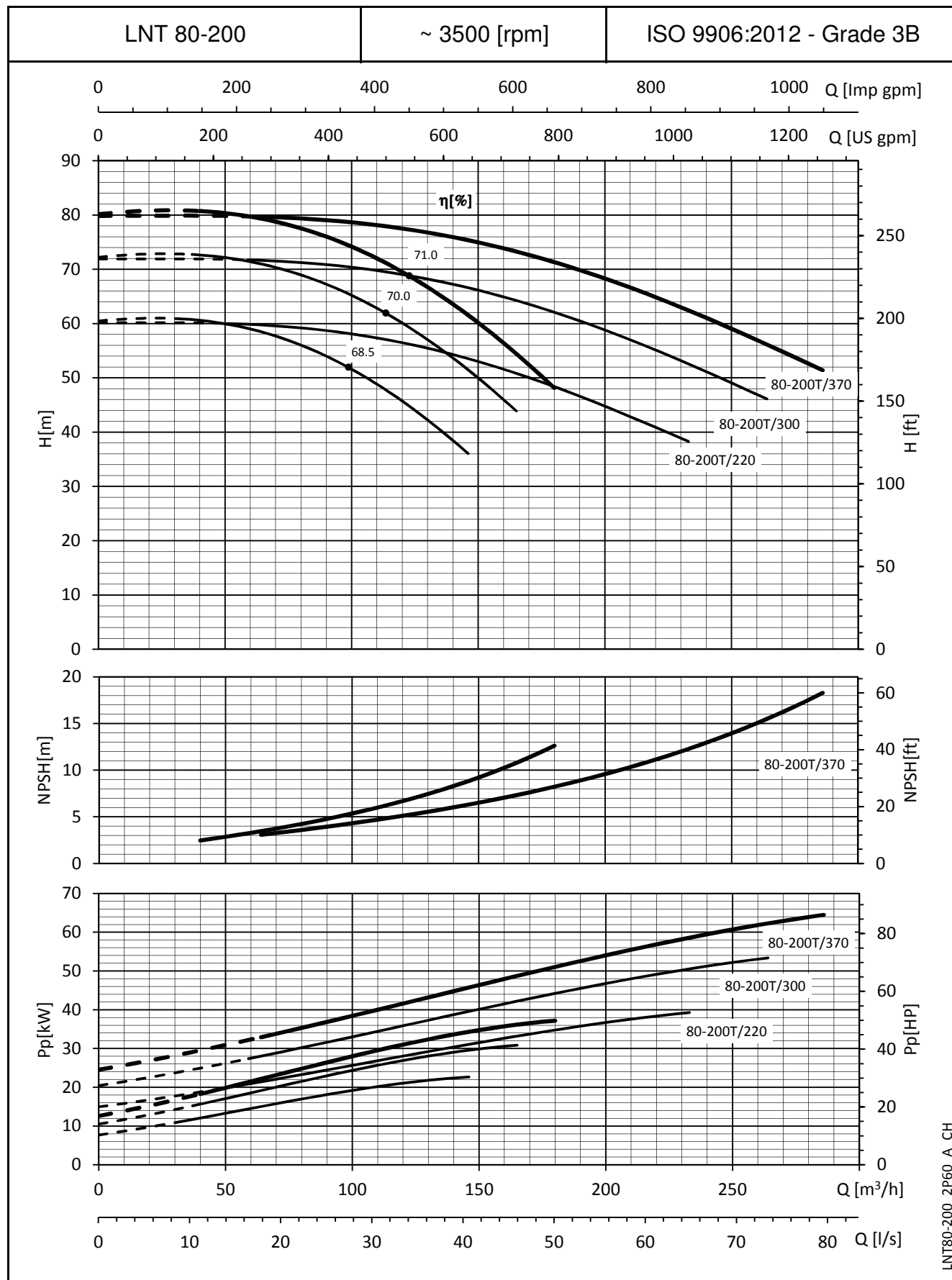
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNT SERIES

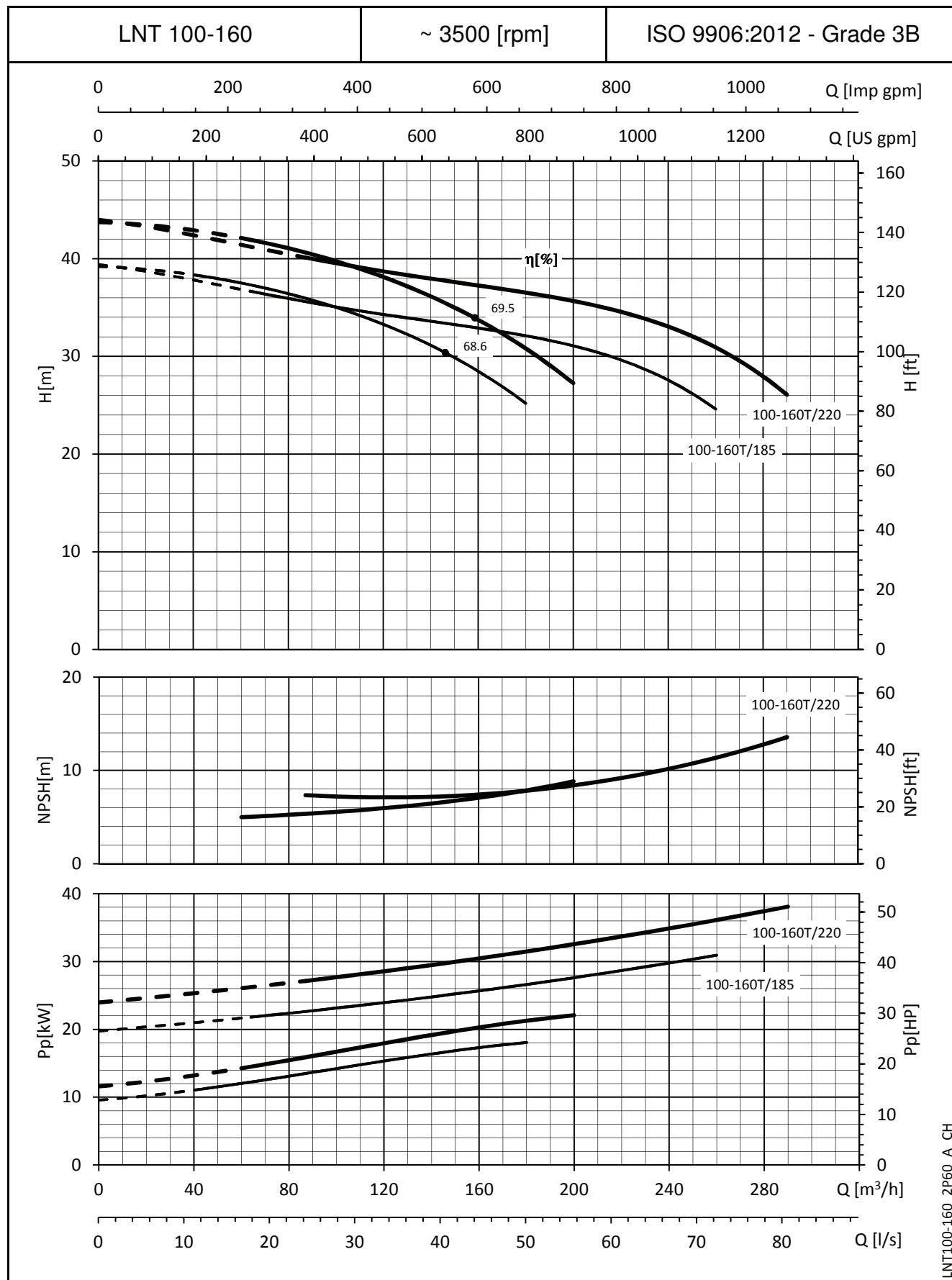
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e-LNT SERIES

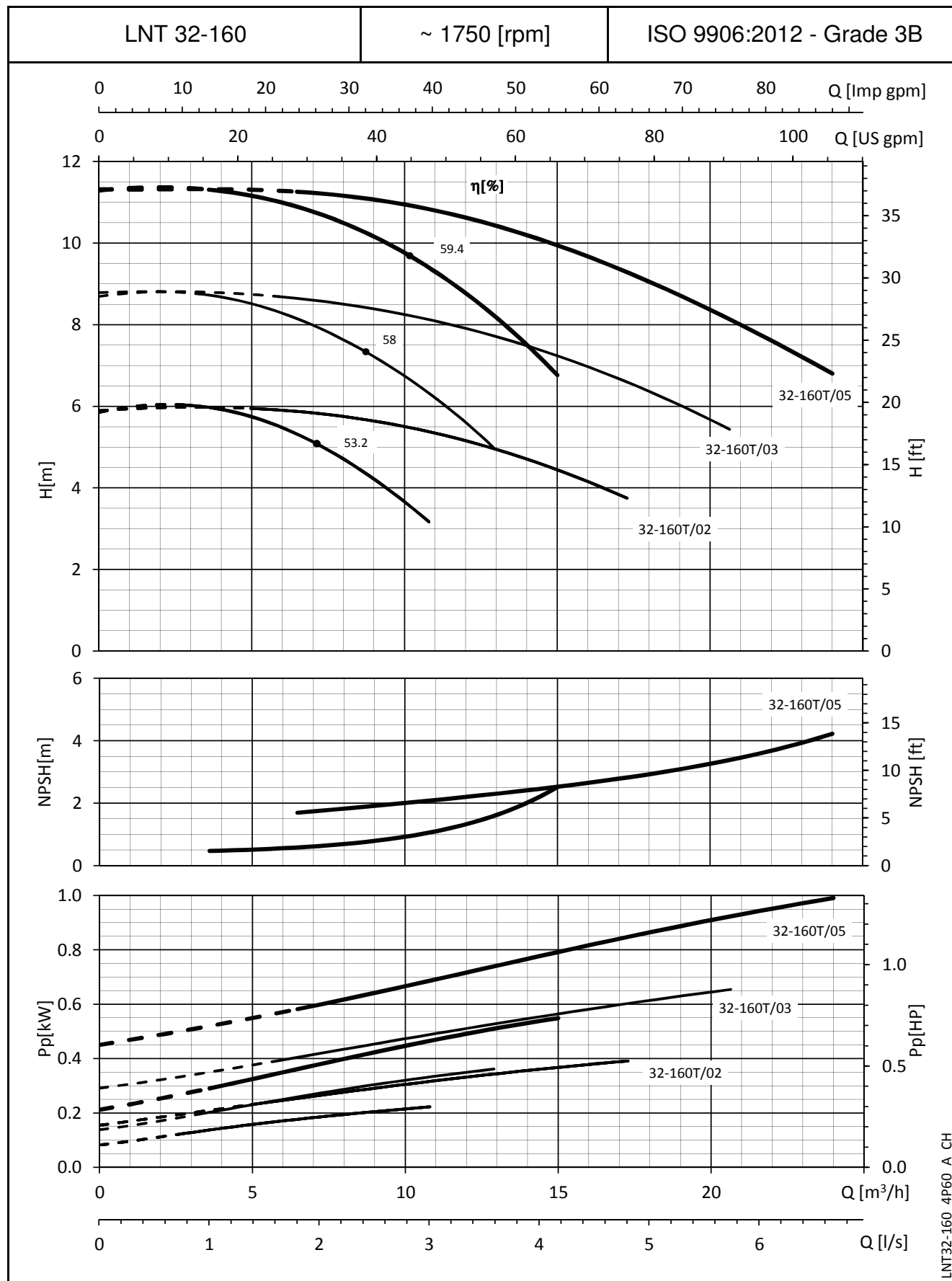
OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



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e-LNT SERIES

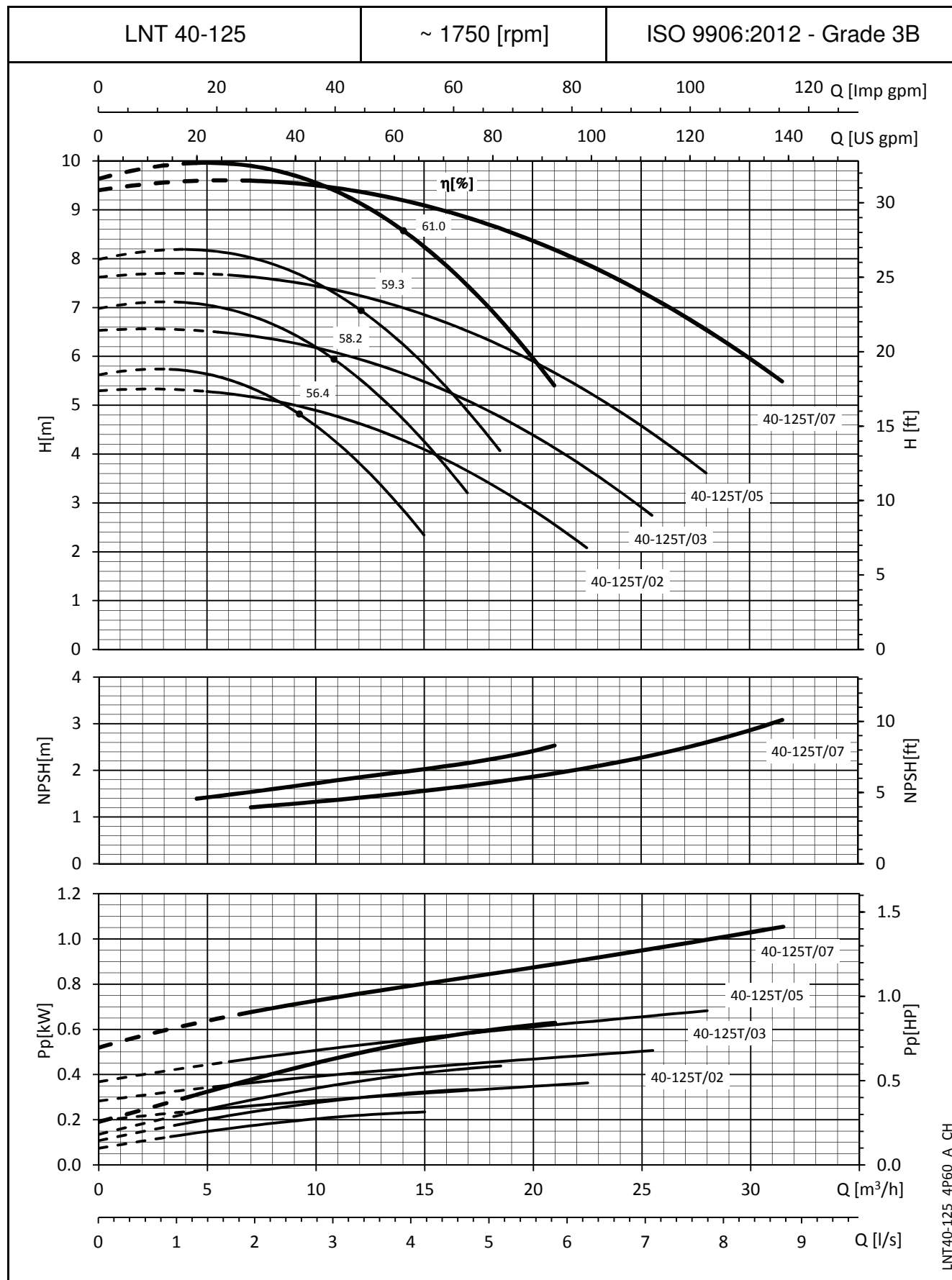
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



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e-LNT SERIES

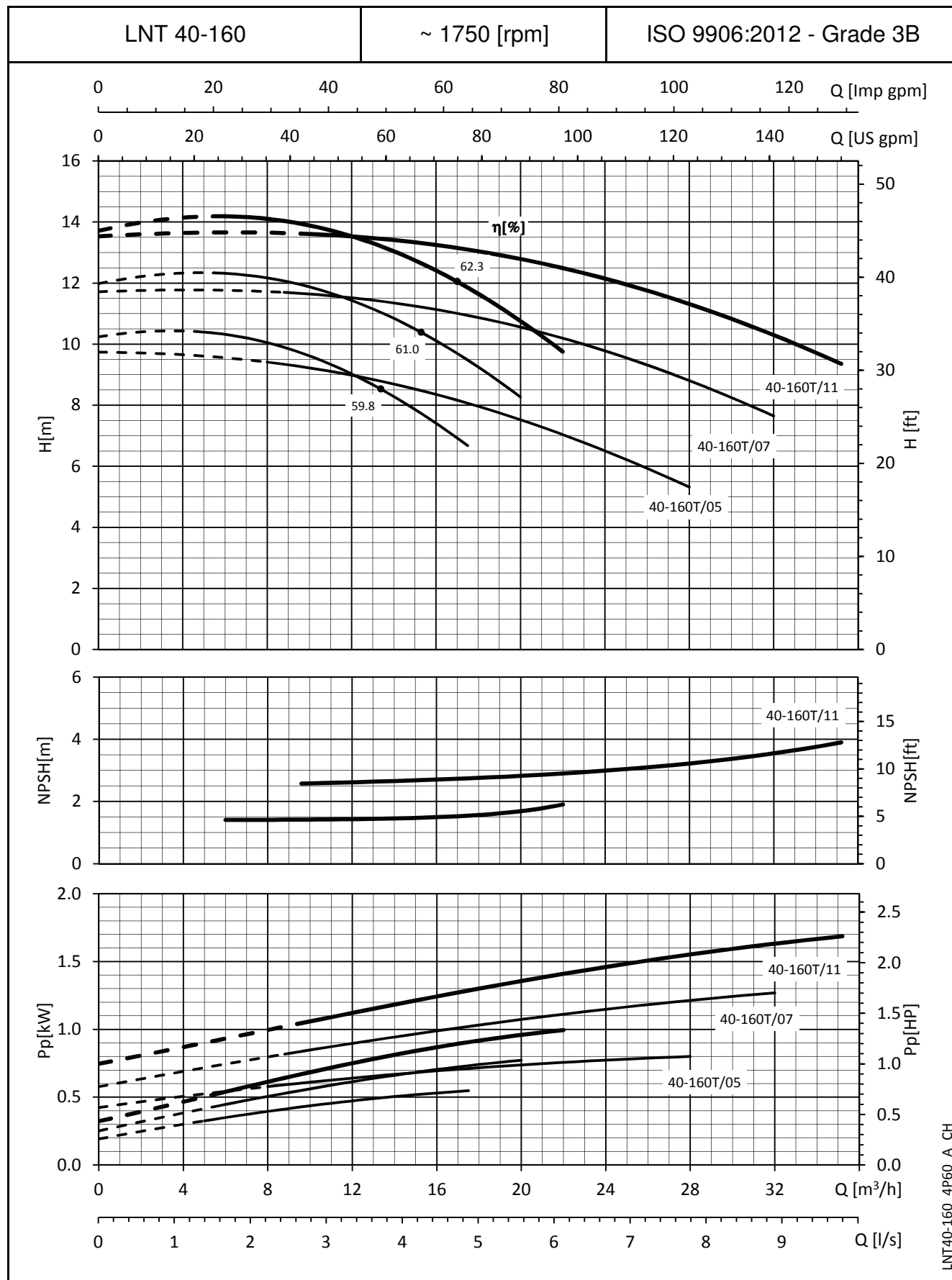
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



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e-LNT SERIES

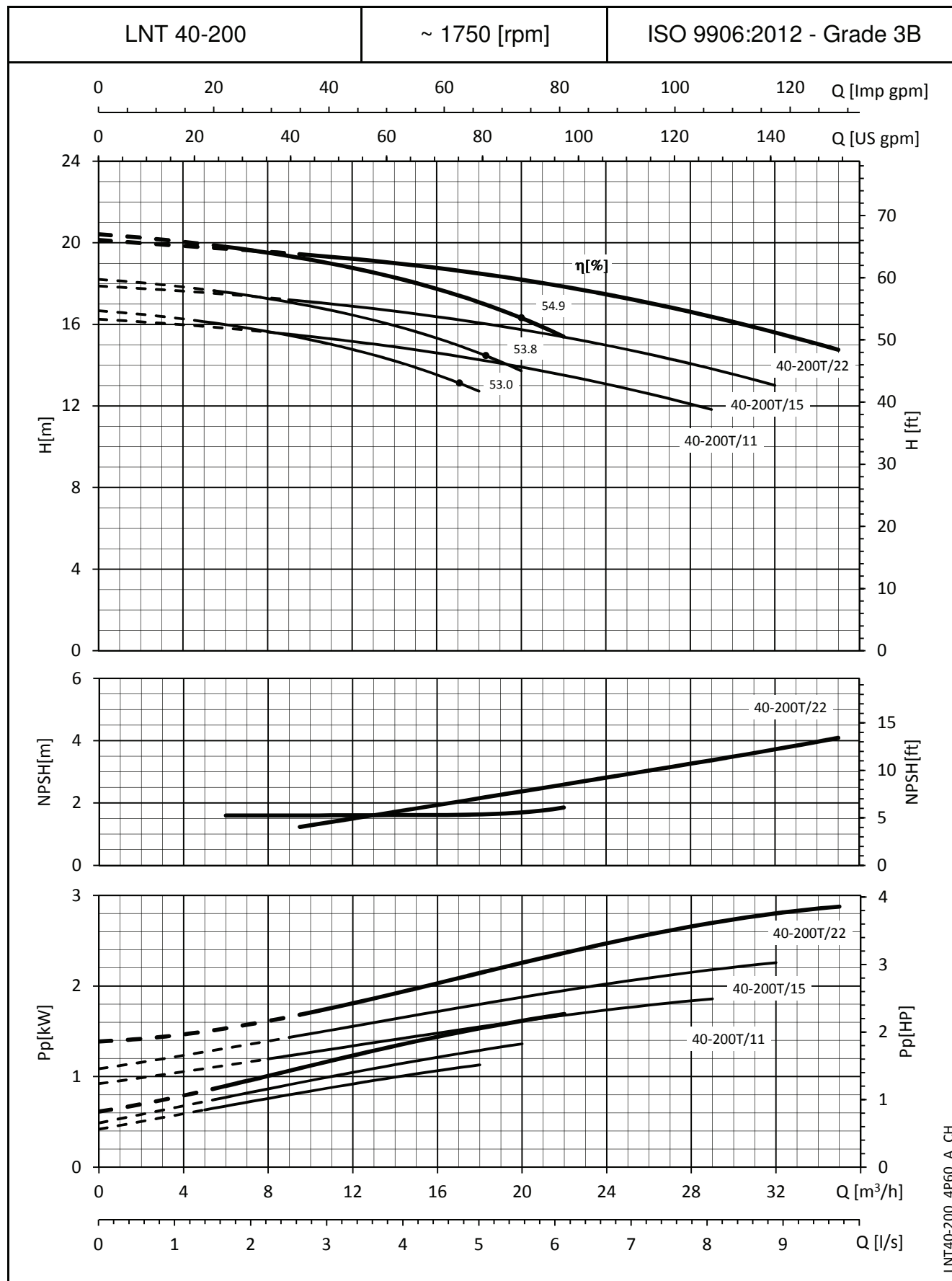
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e-LNT SERIES

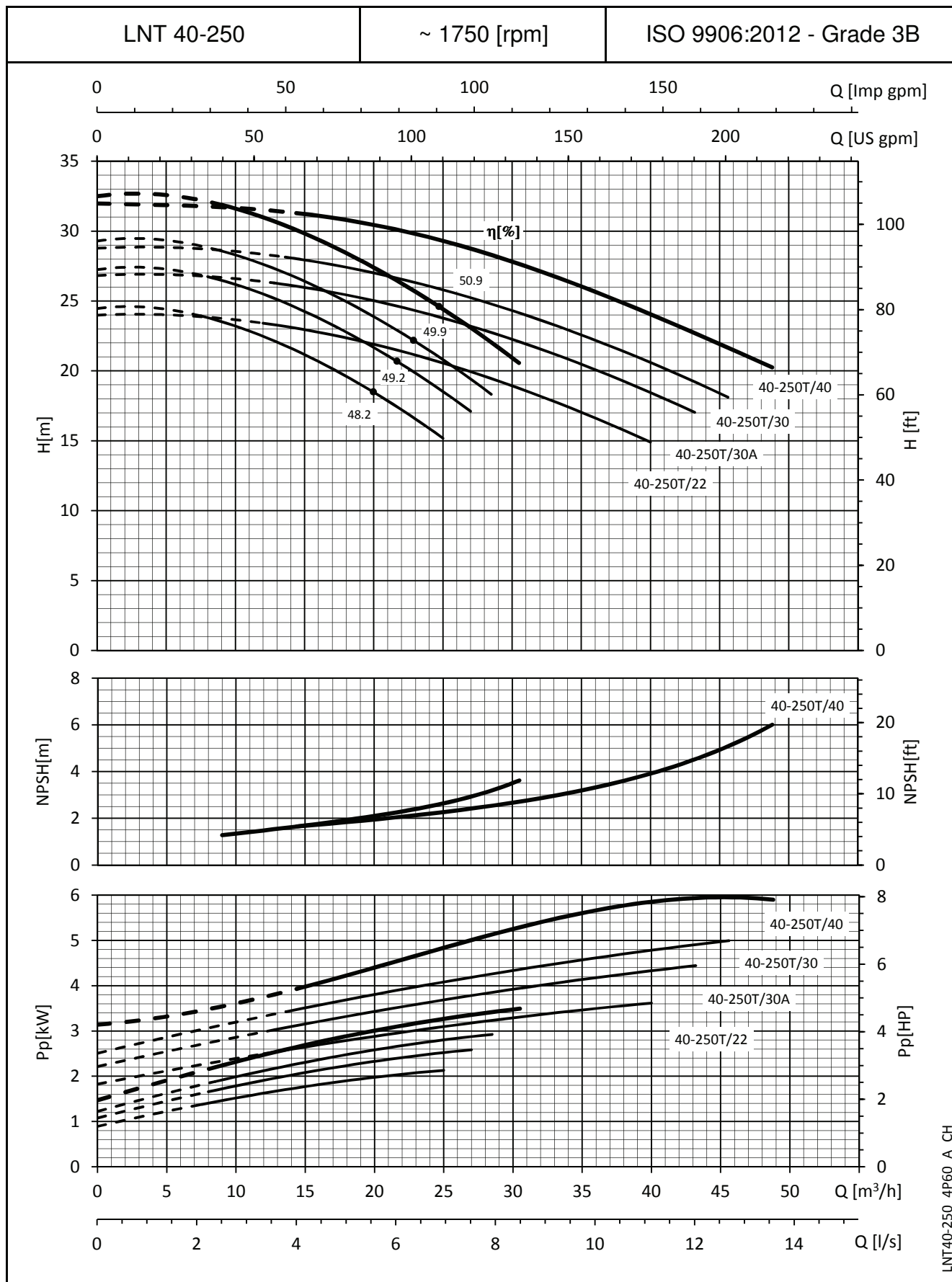
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



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e-LNT SERIES

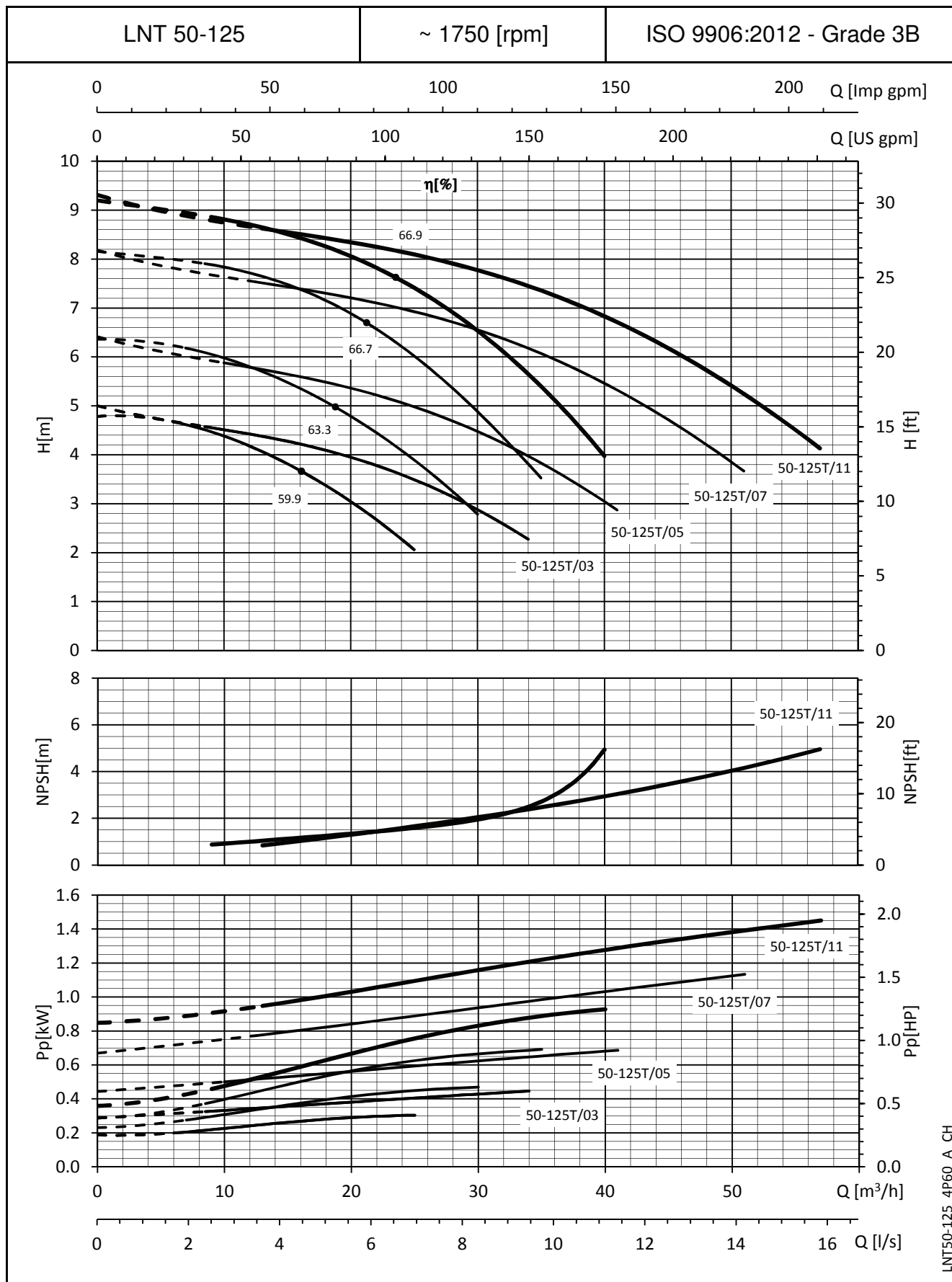
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



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e-LNT SERIES

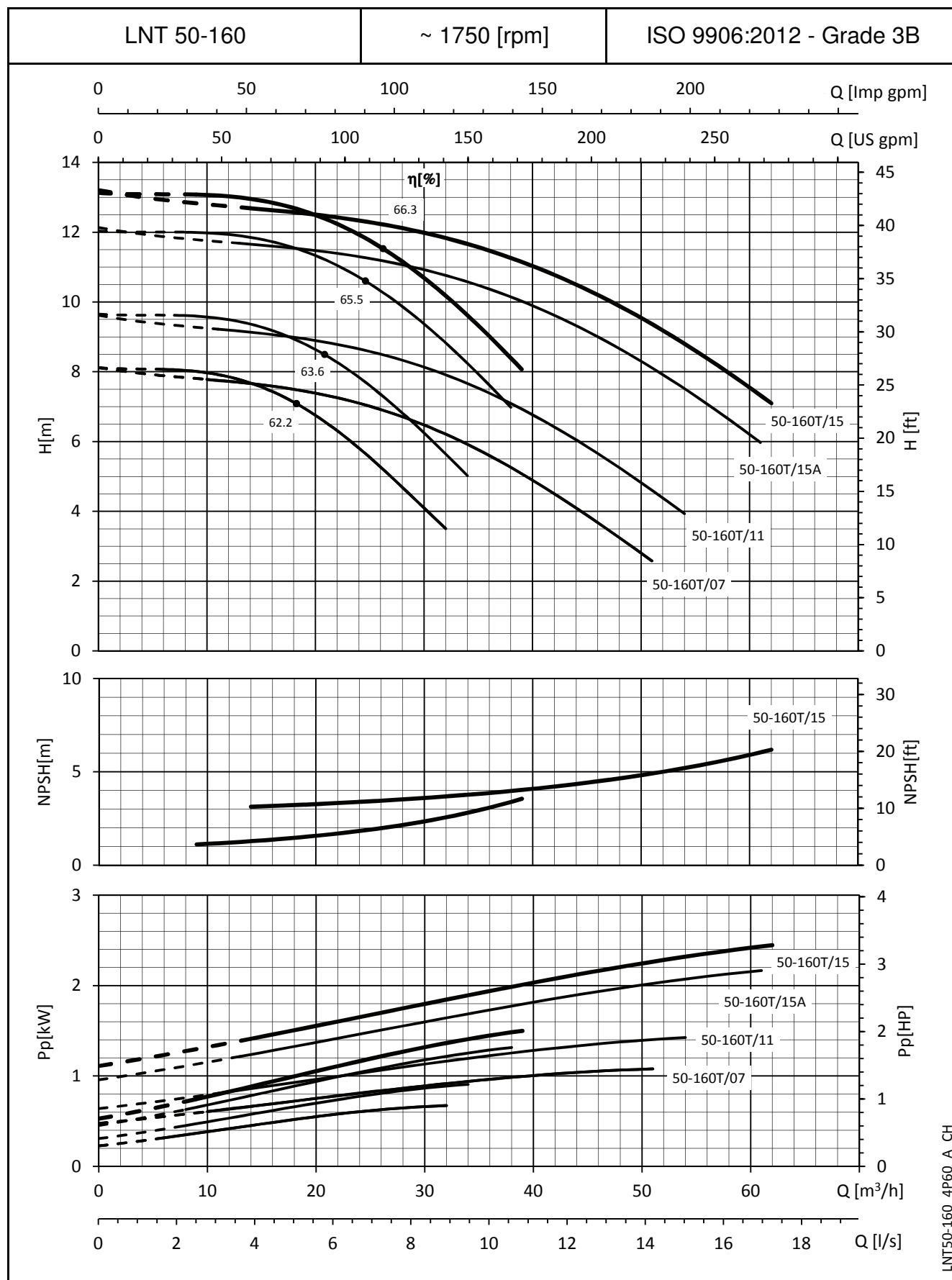
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



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e-LNT SERIES

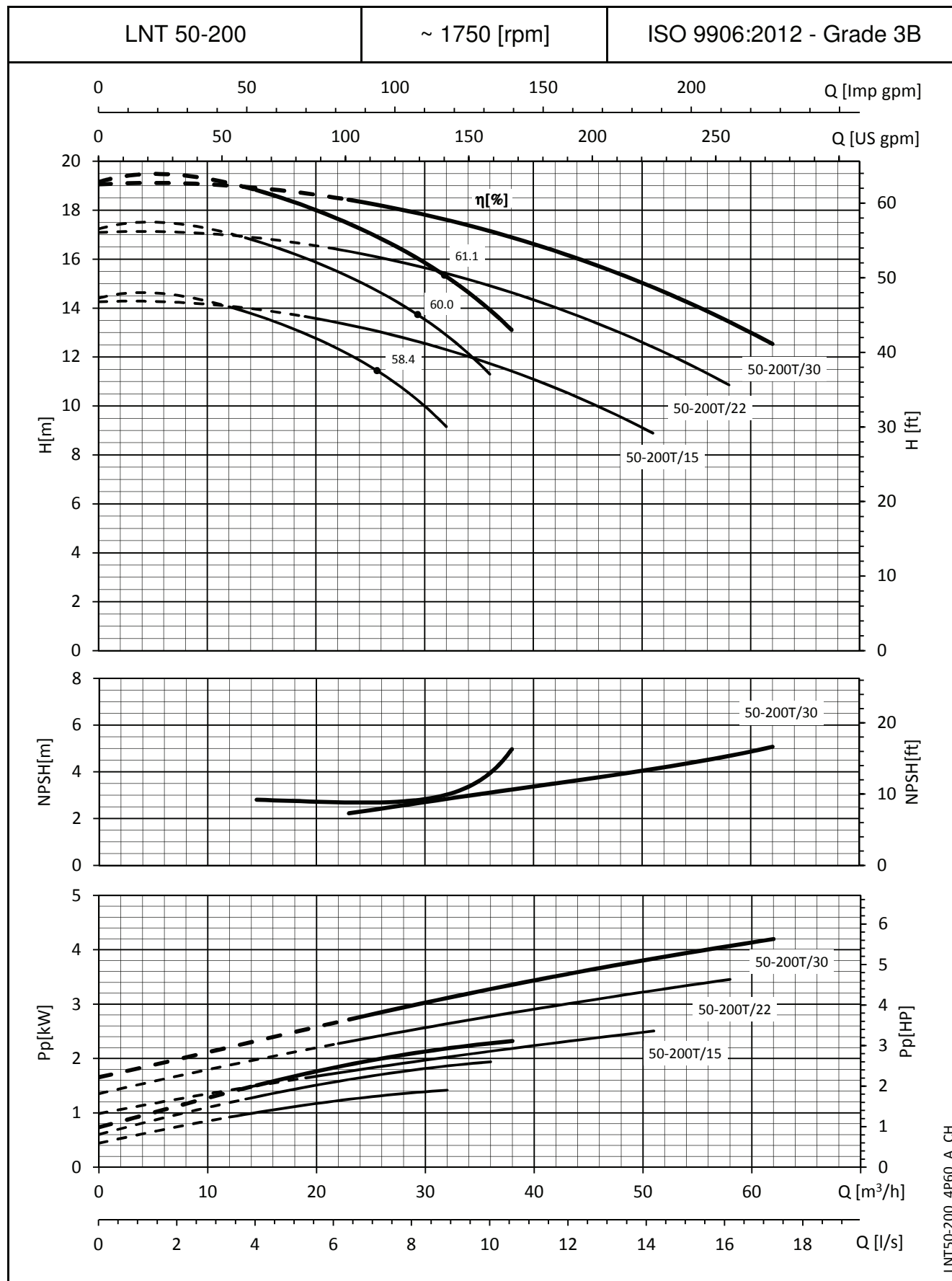
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



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e-LNT SERIES

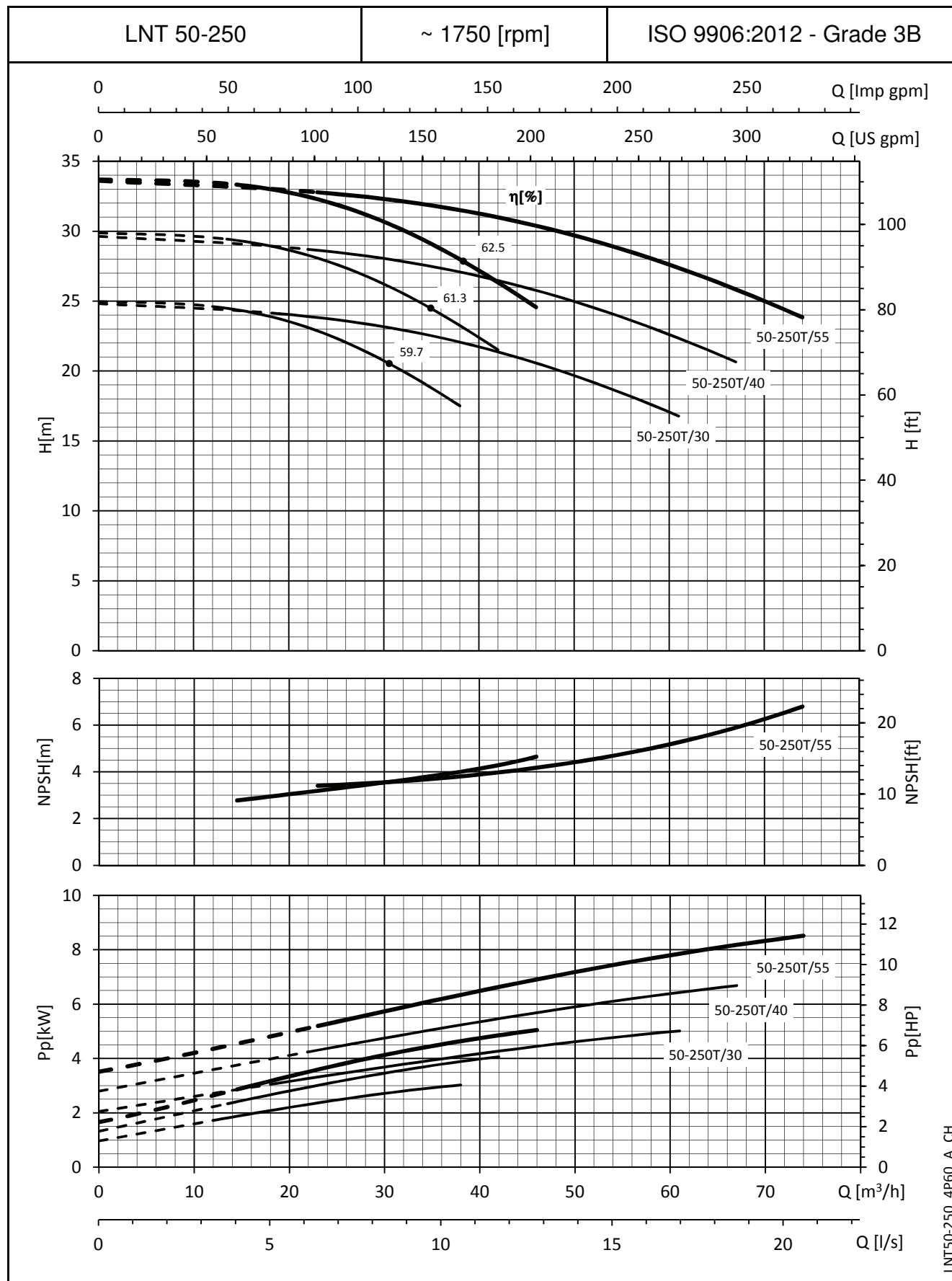
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



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e-LNT SERIES

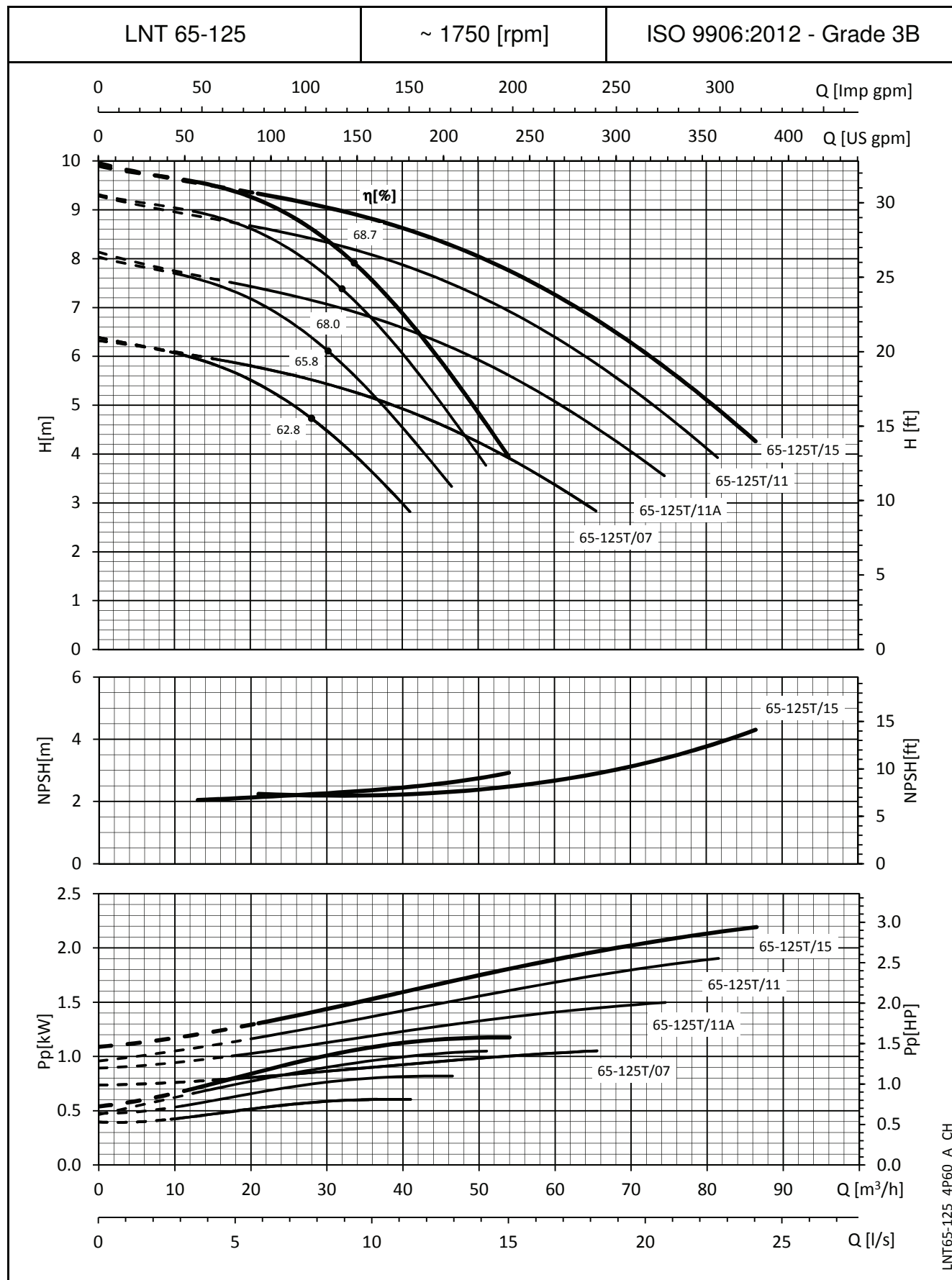
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



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e-LNT SERIES

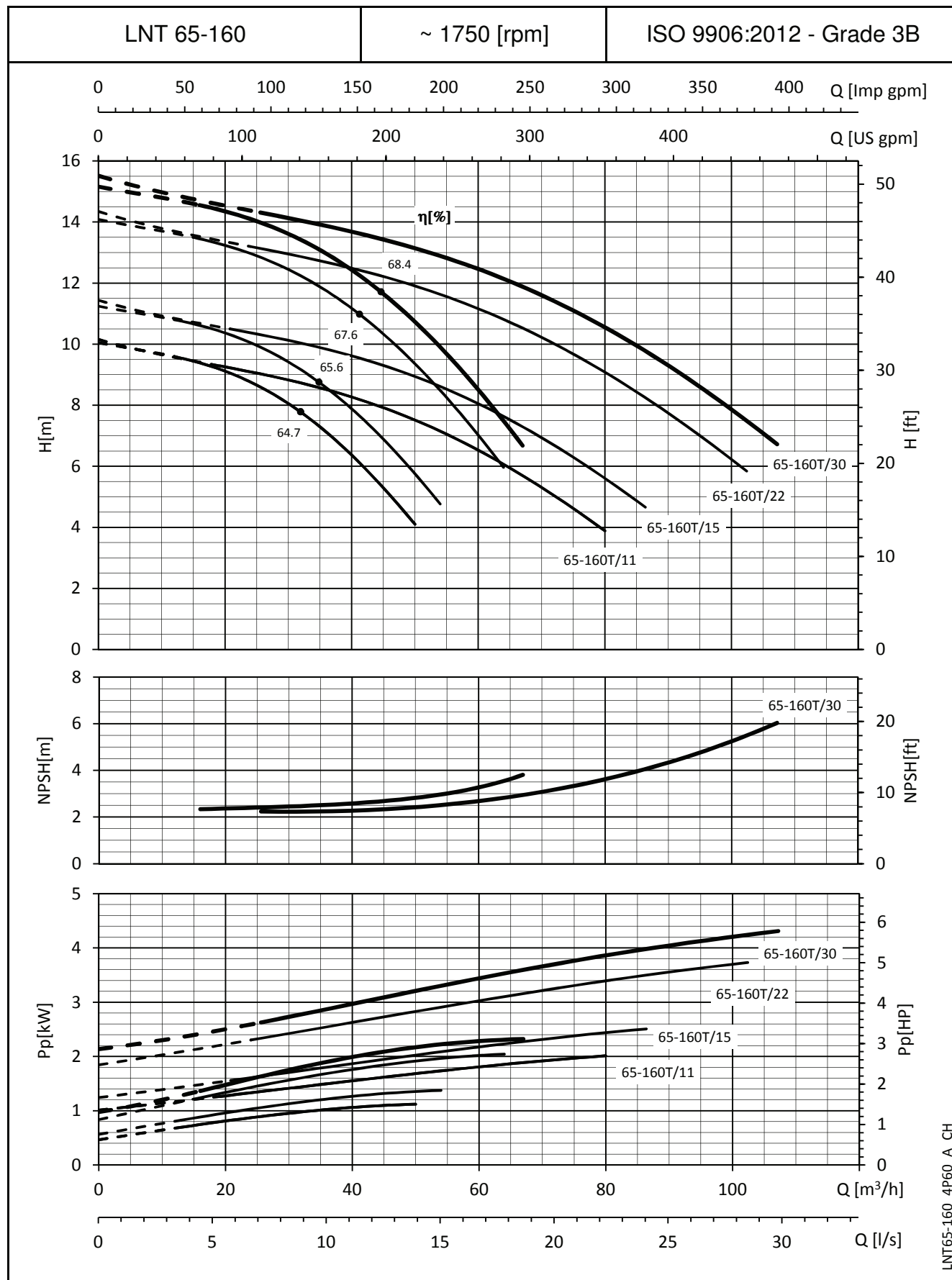
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e-LNT SERIES

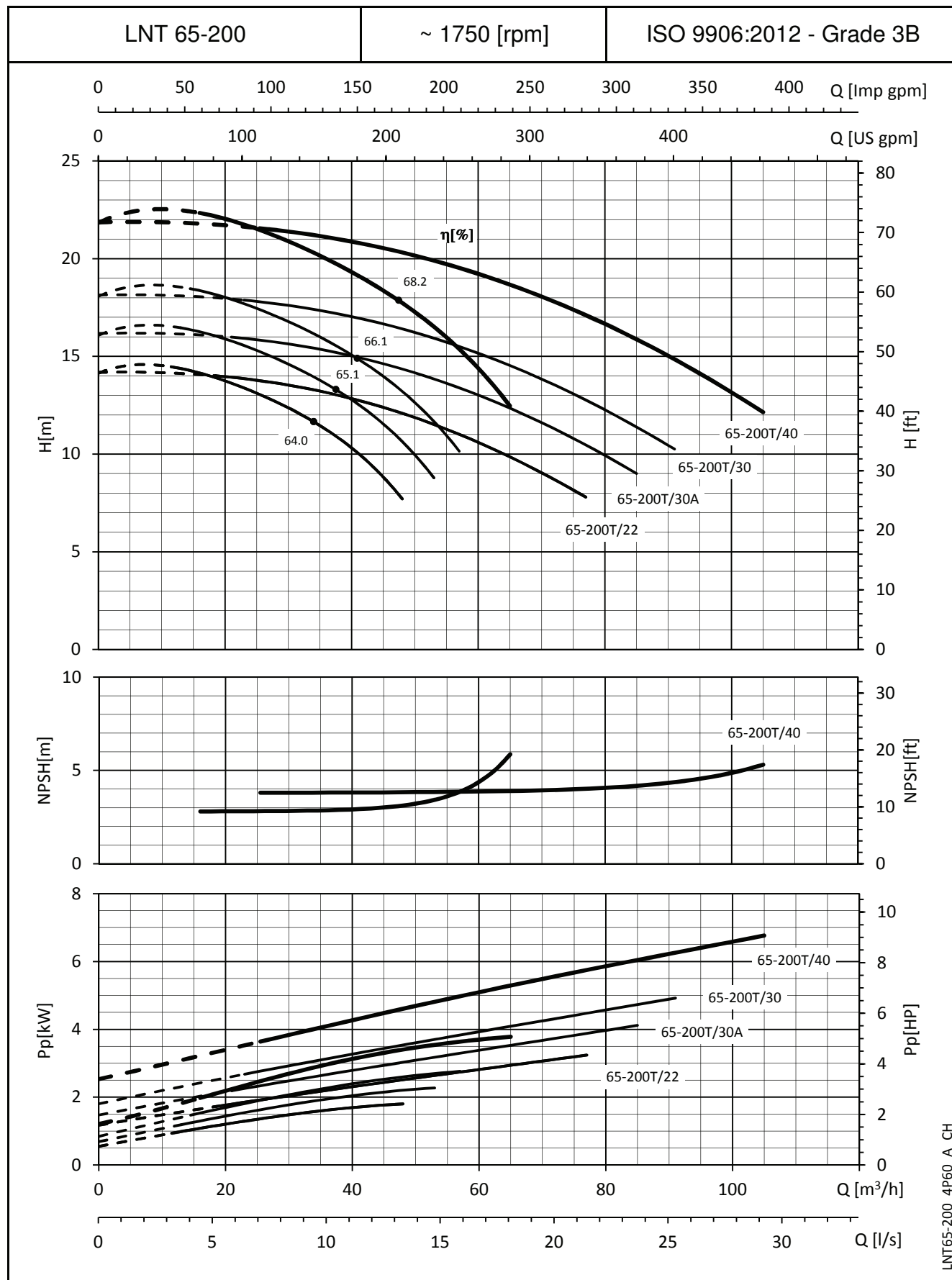
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e-LNT SERIES

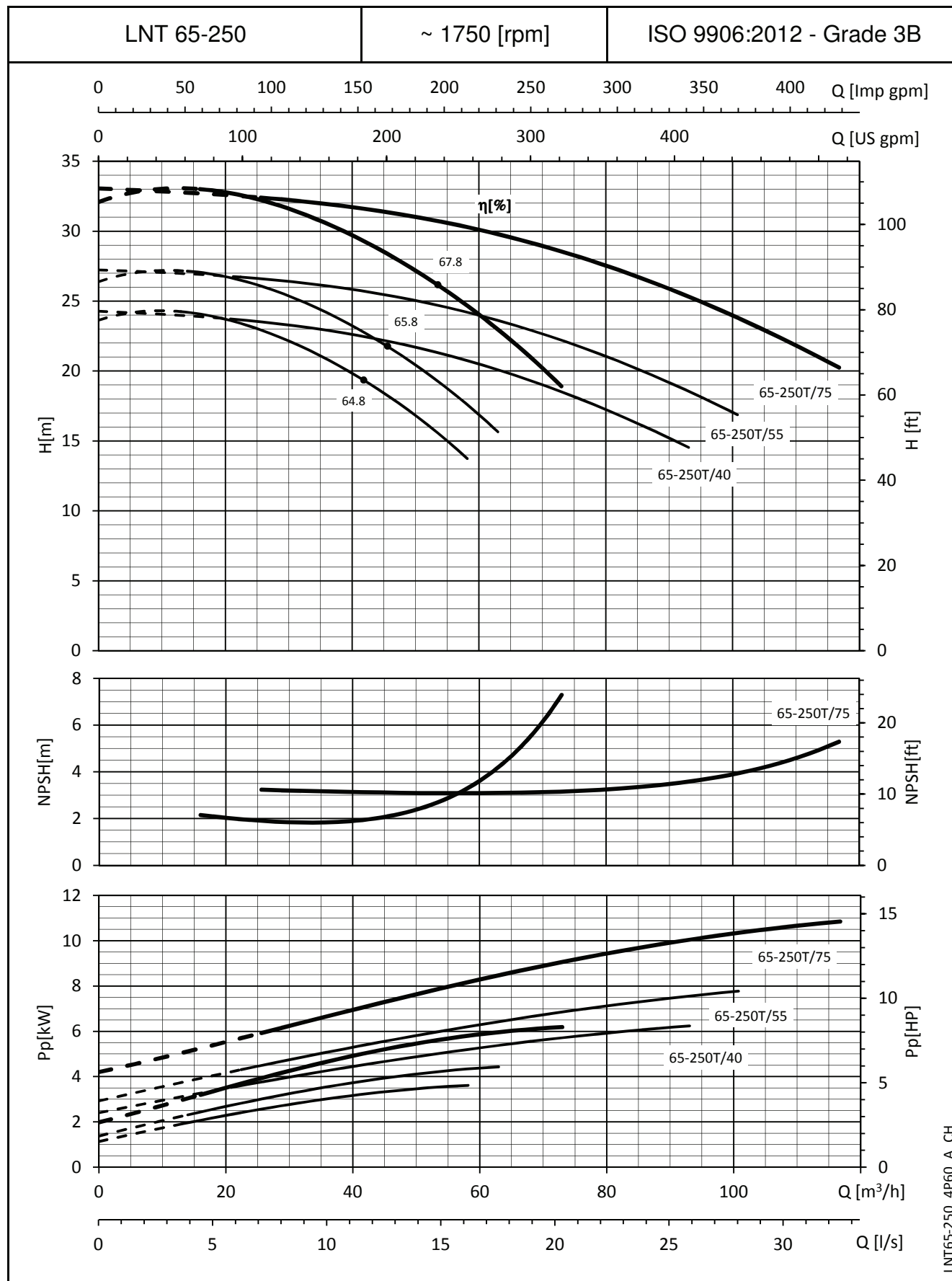
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e-LNT SERIES

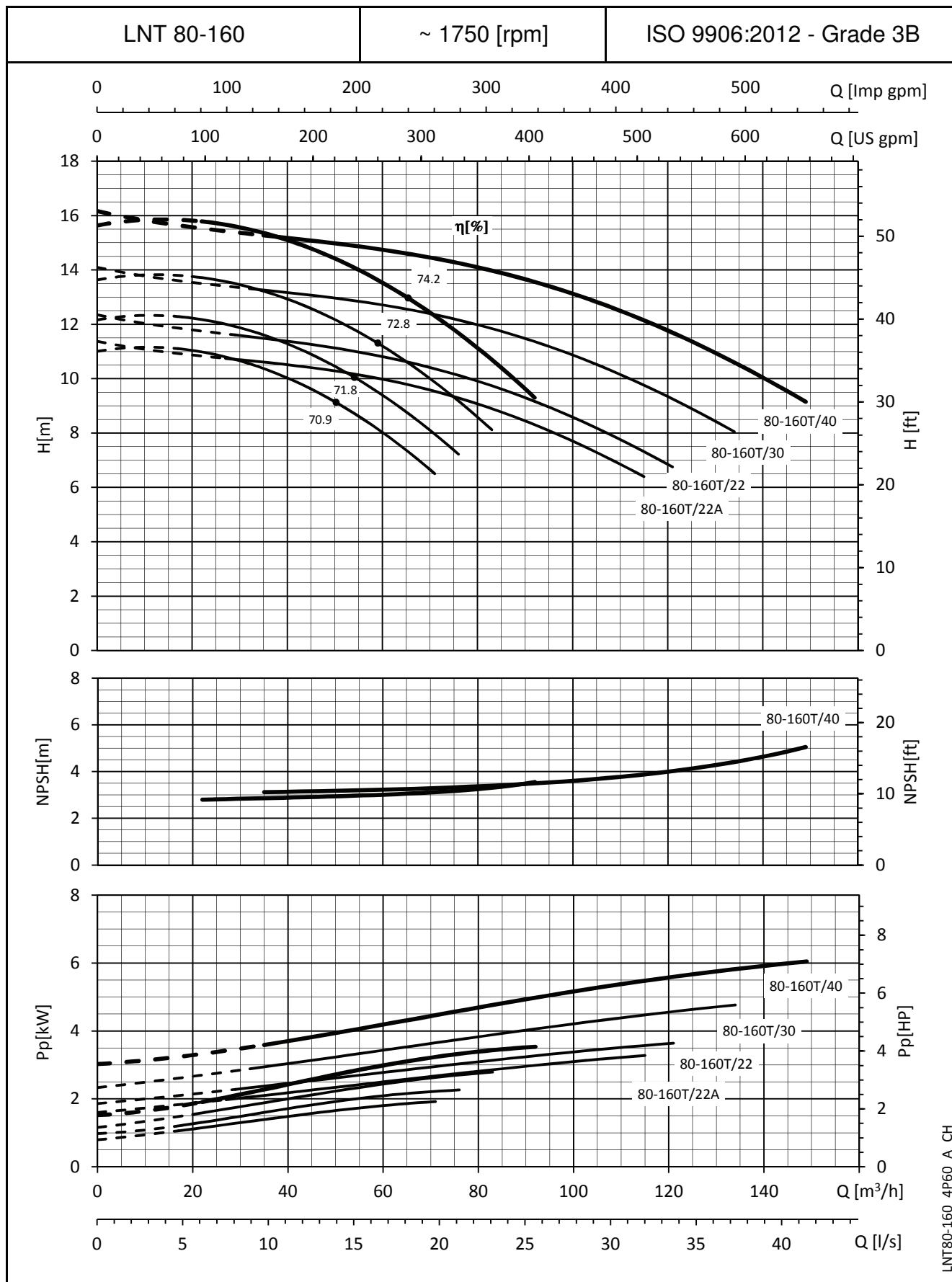
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e-LNT SERIES

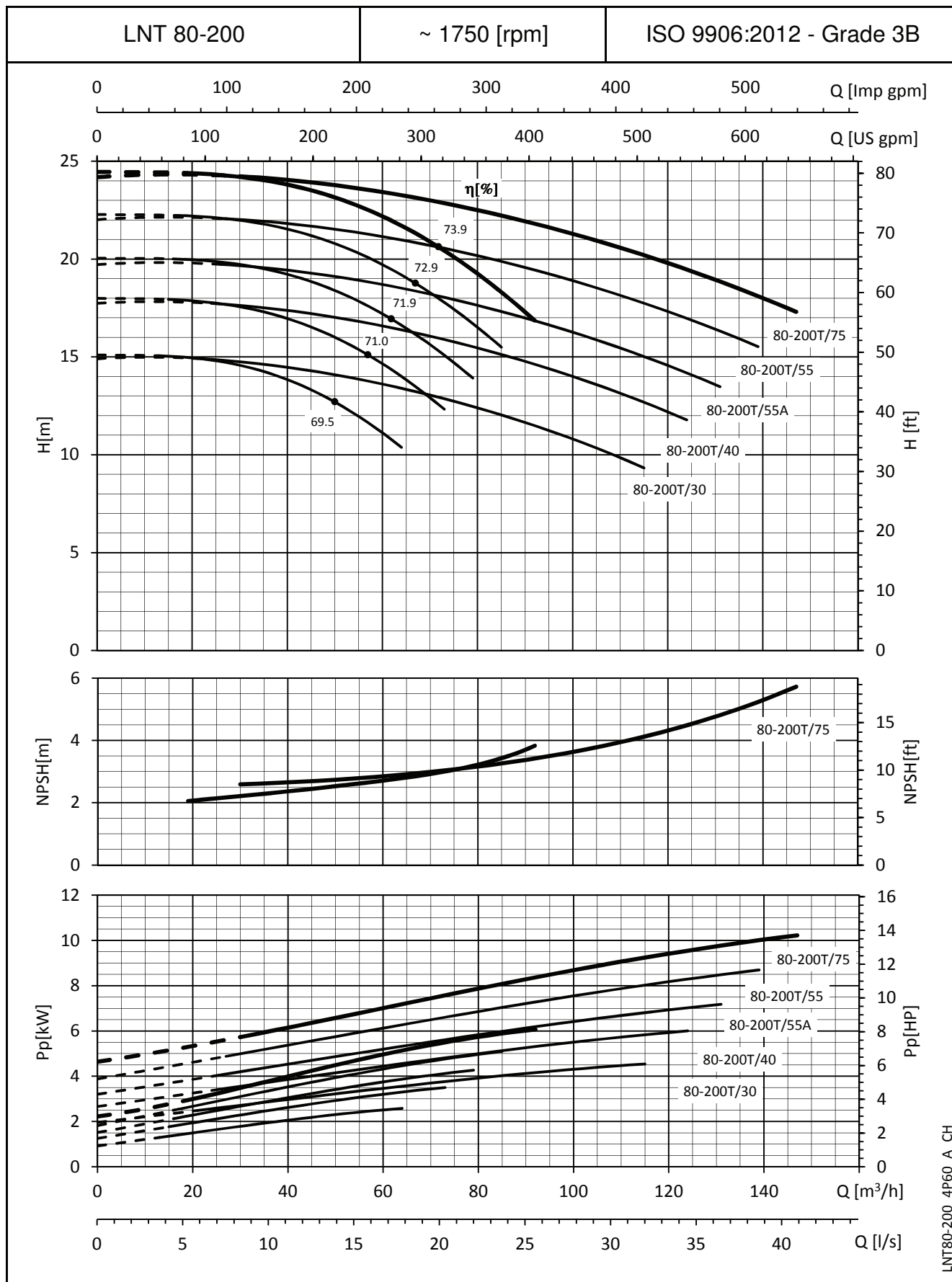
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



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e-LNT SERIES

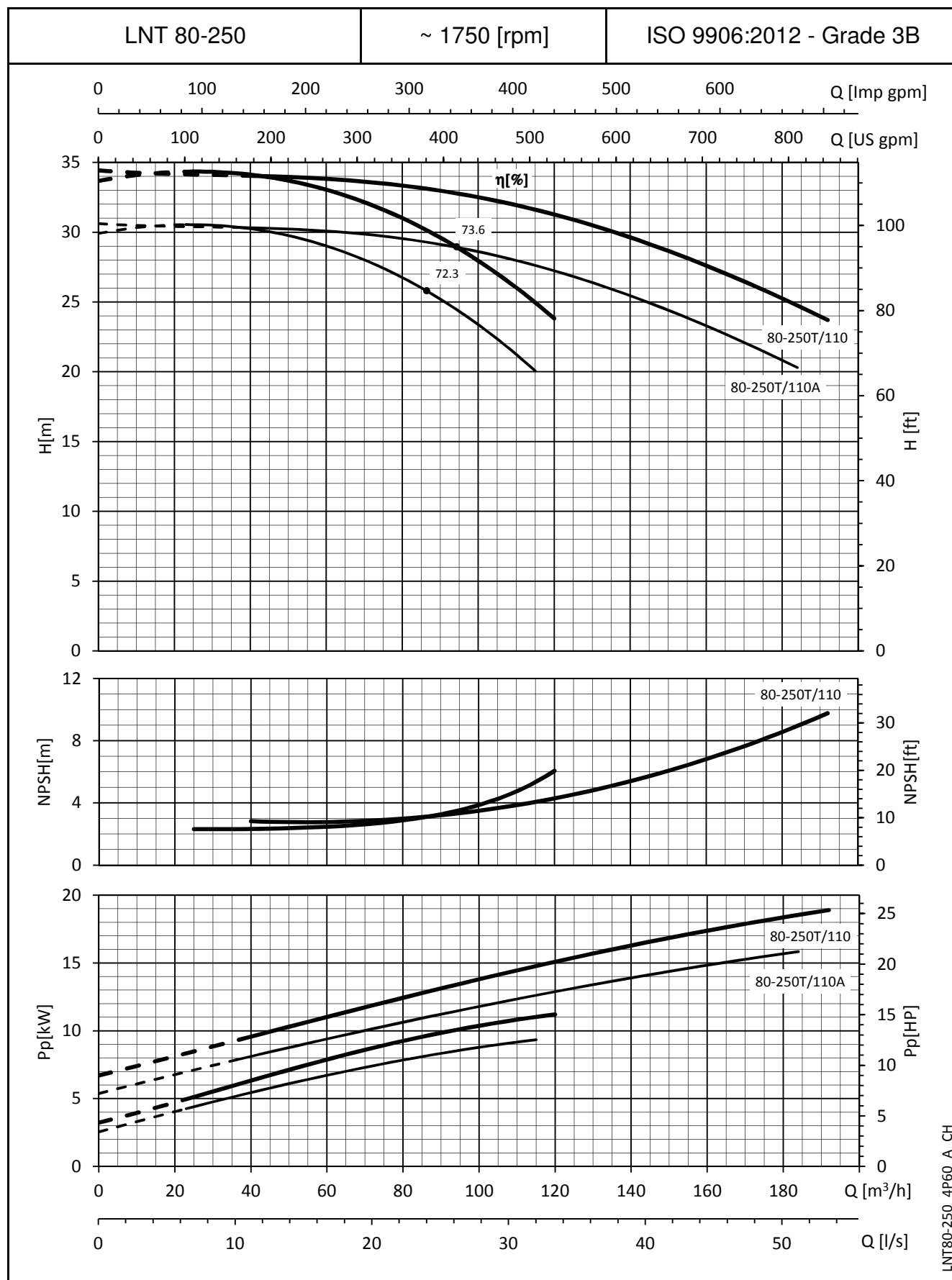
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e-LNT SERIES

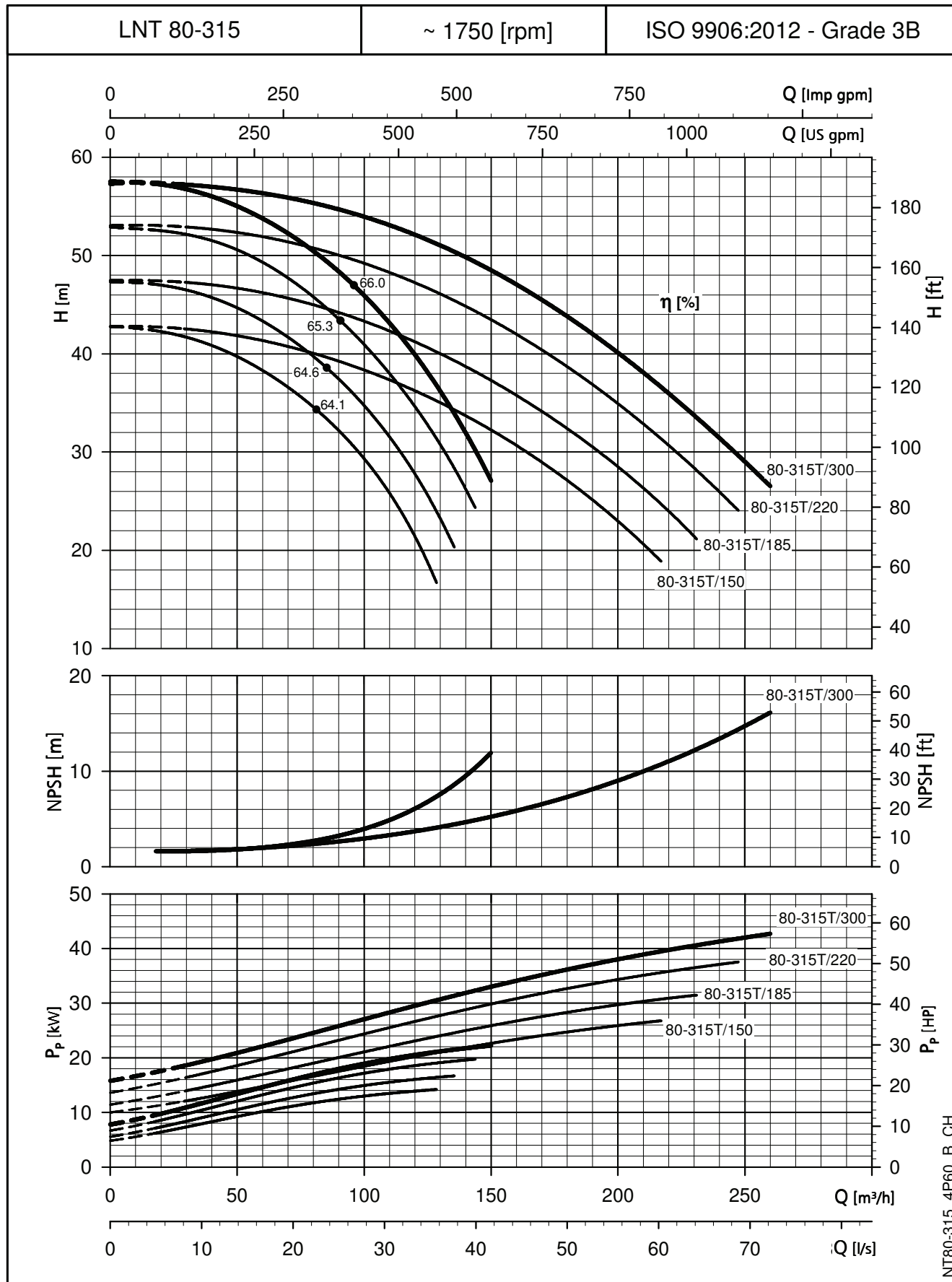
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e-LNT SERIES

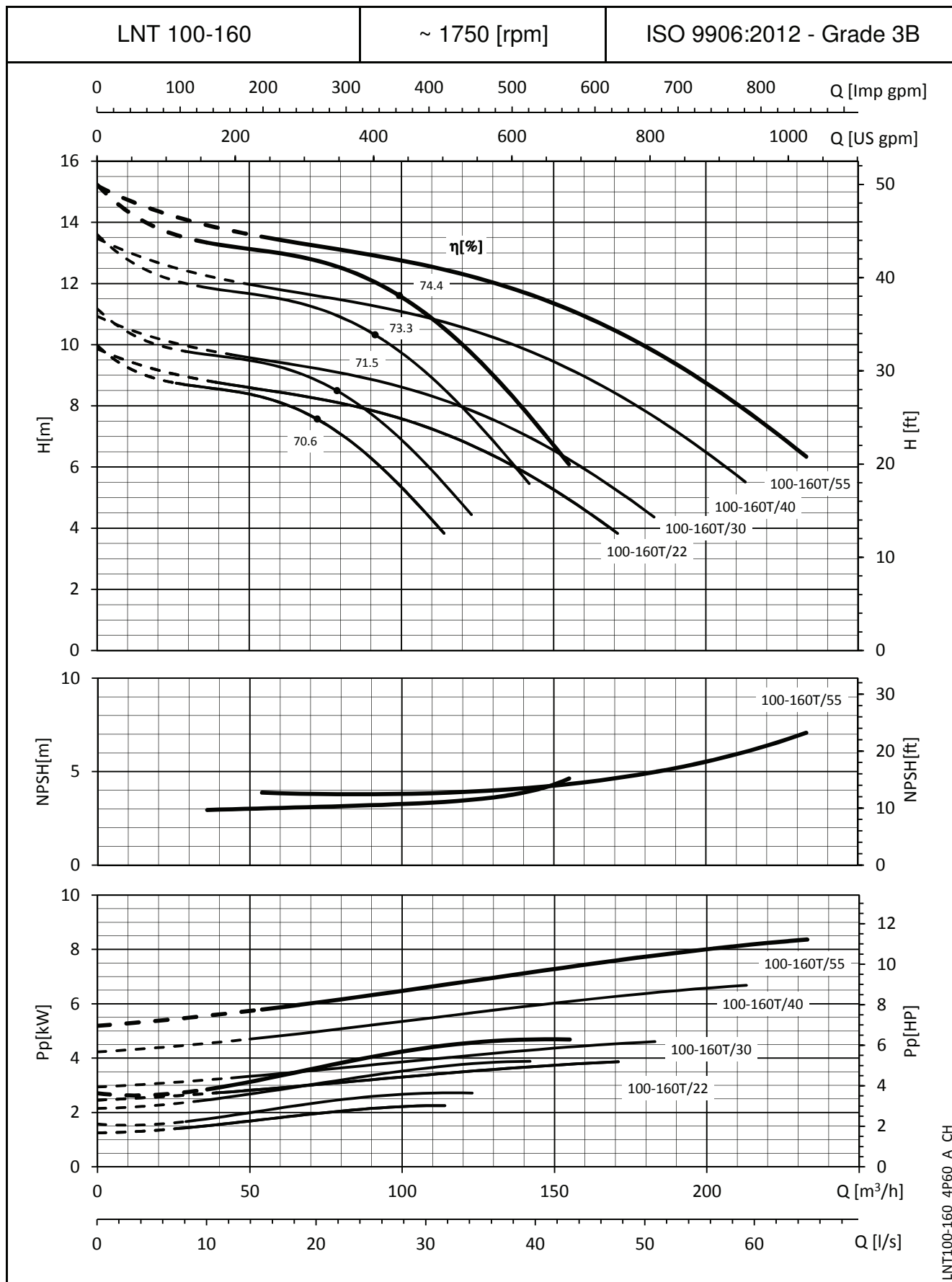
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These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNT SERIES

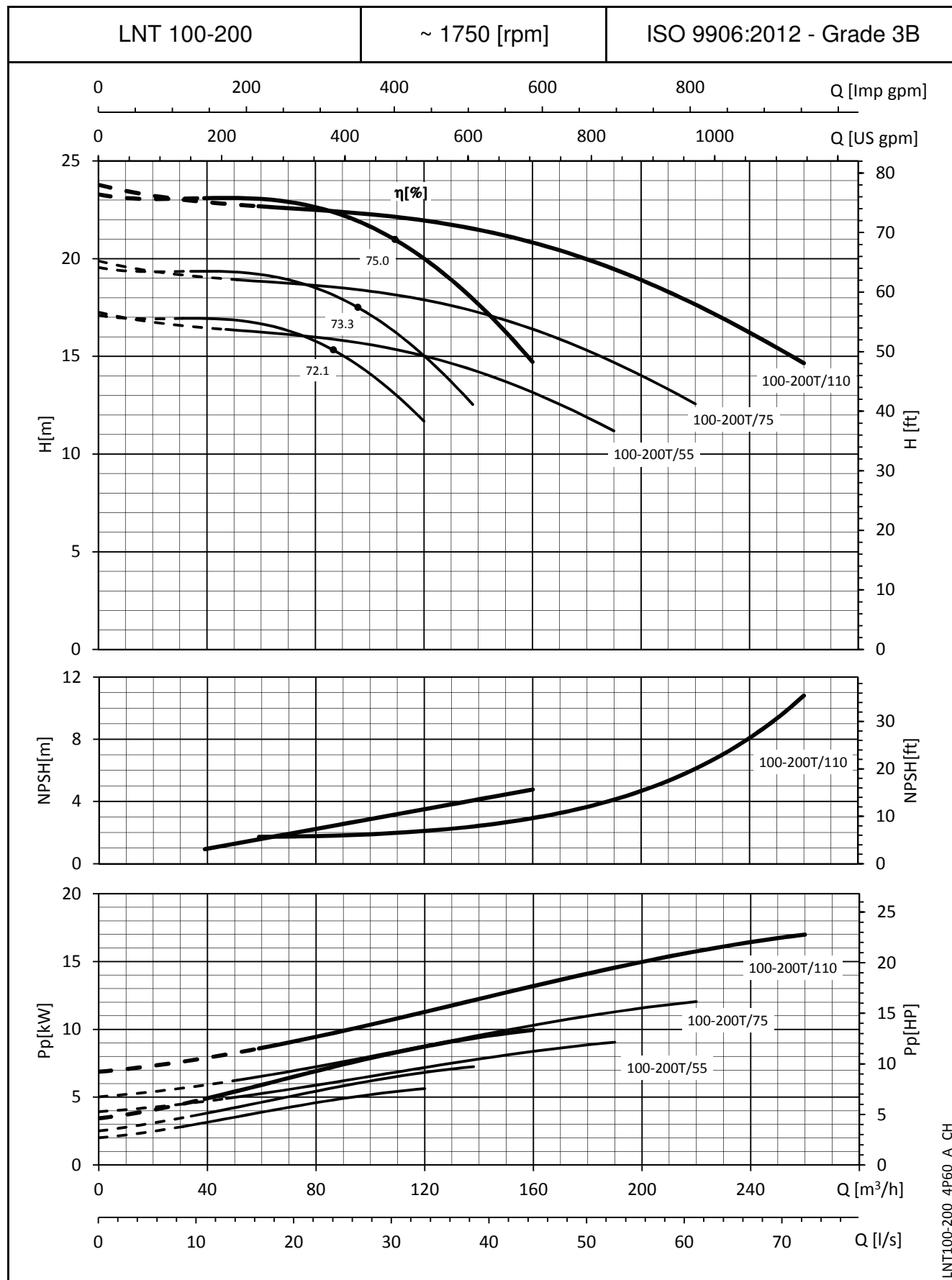
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



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-LNT SERIES

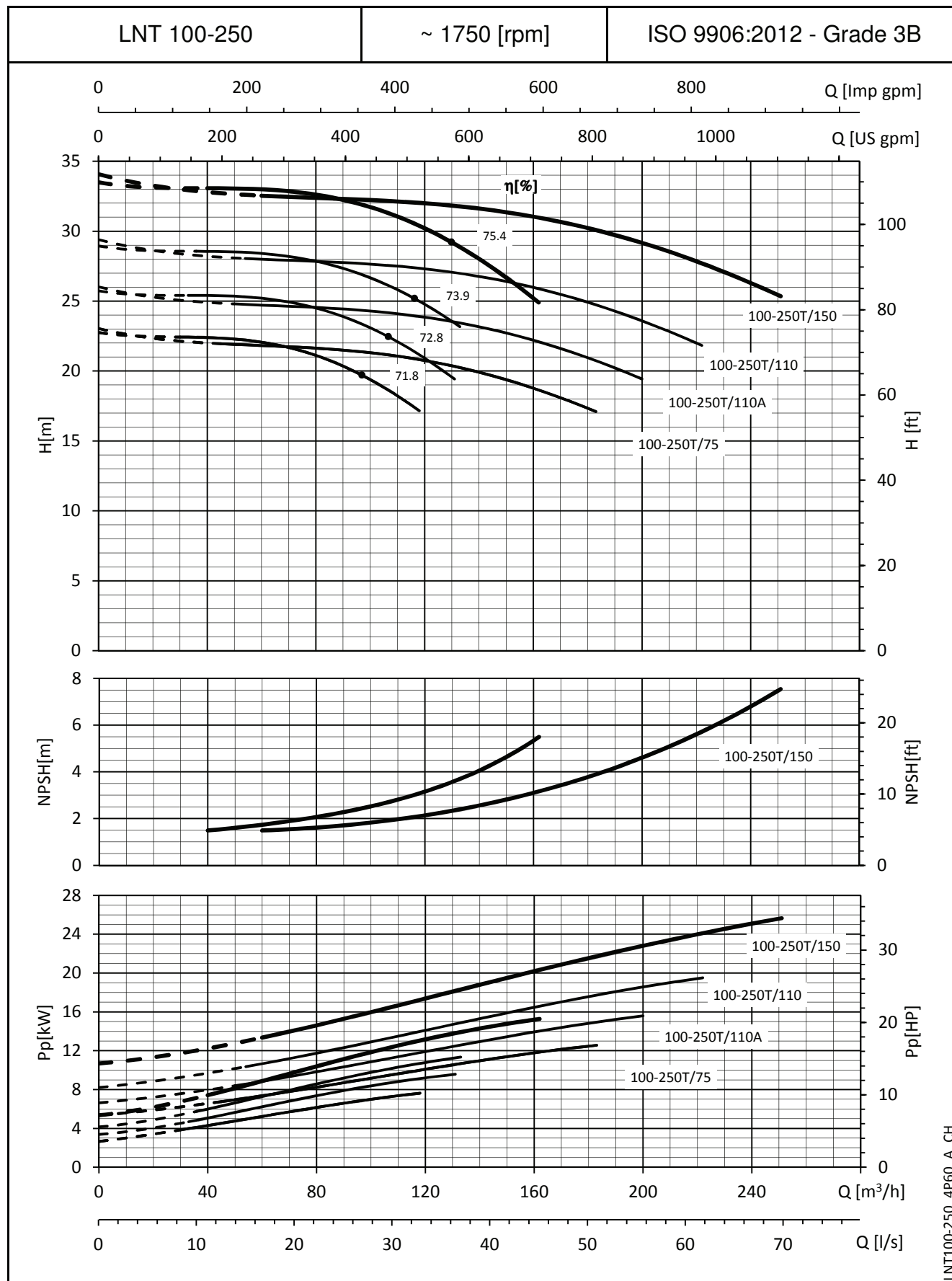
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



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-LNT SERIES

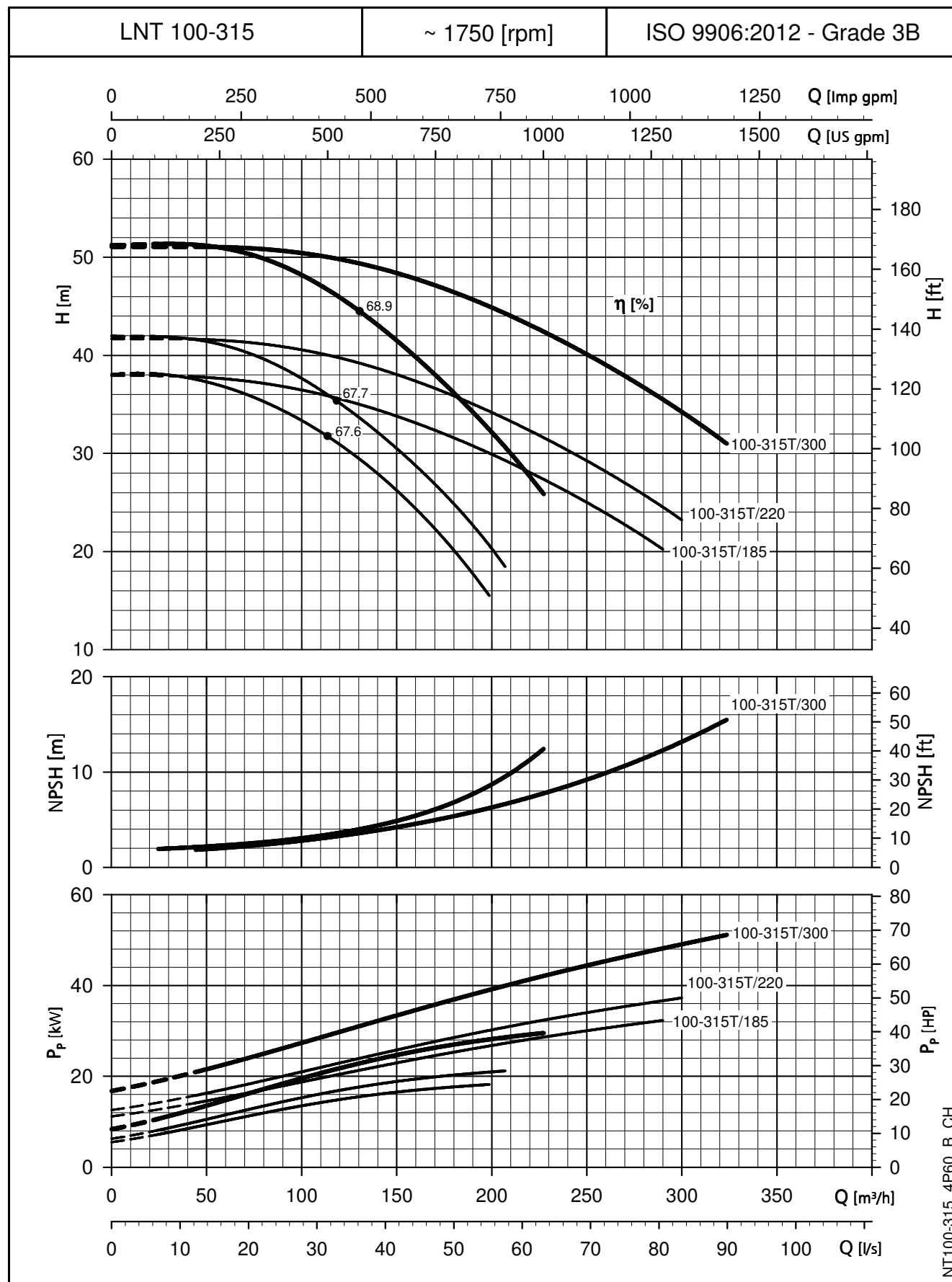
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



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-LNT SERIES

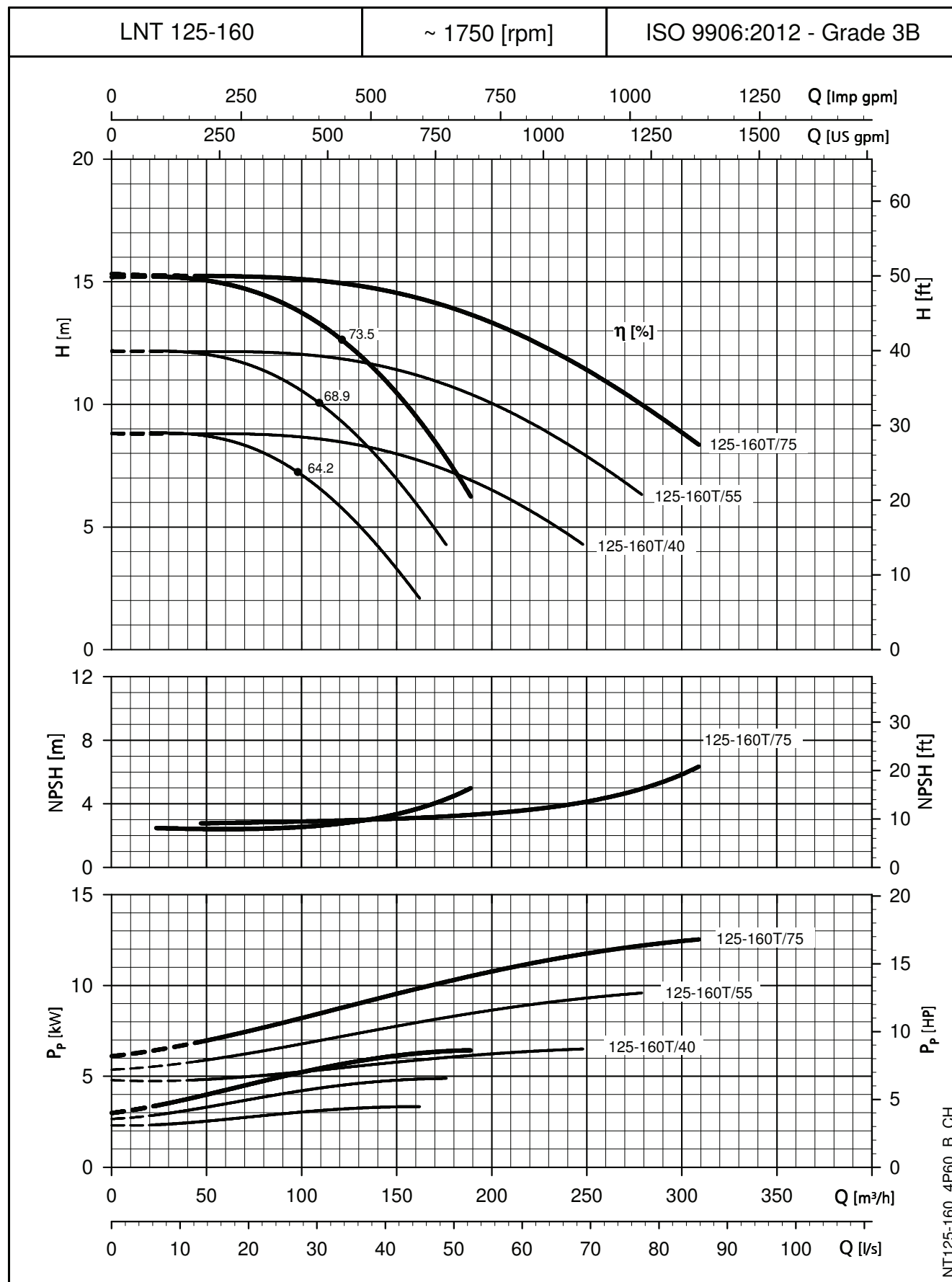
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



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-LNT SERIES

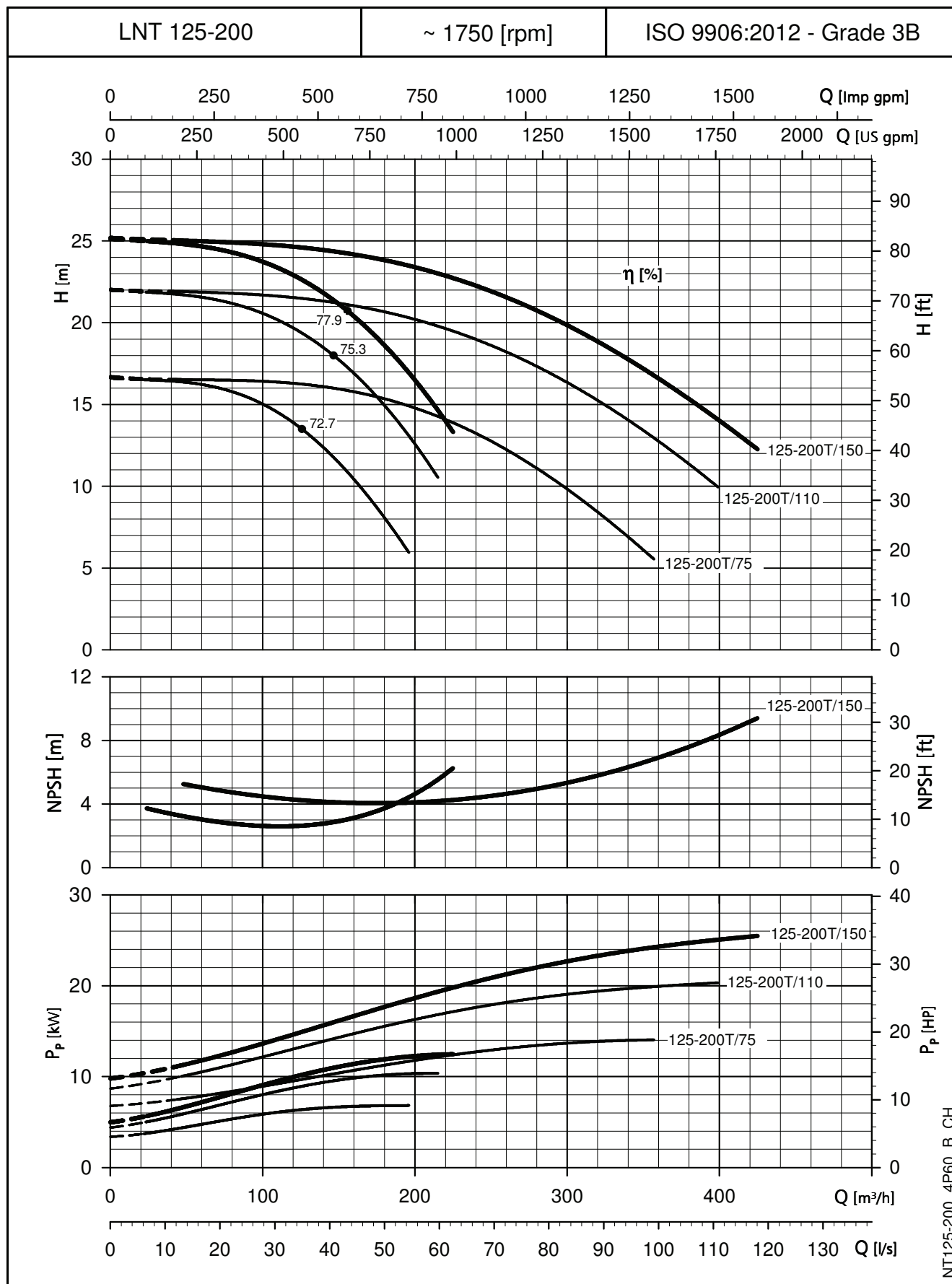
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



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-LNT SERIES

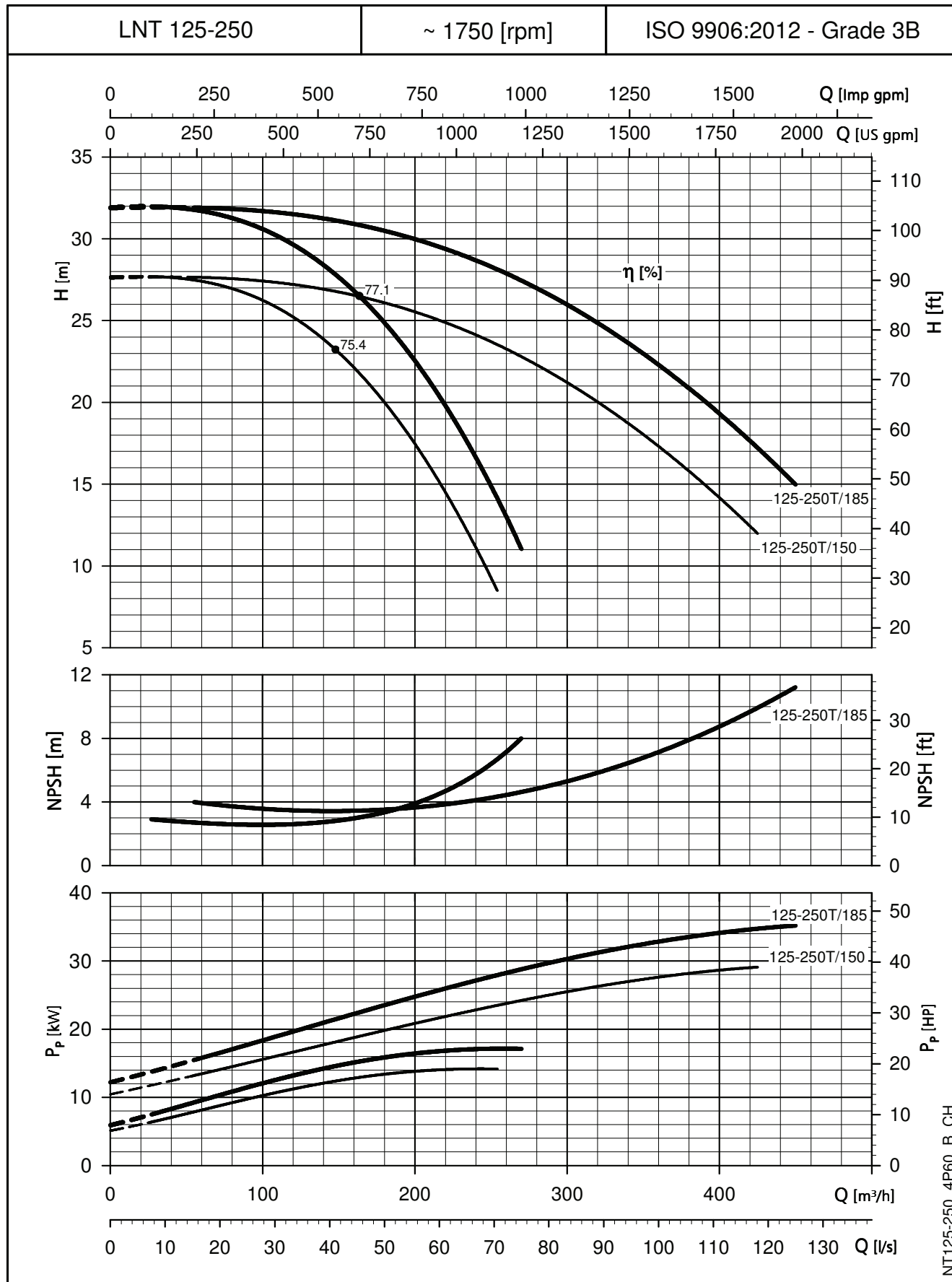
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



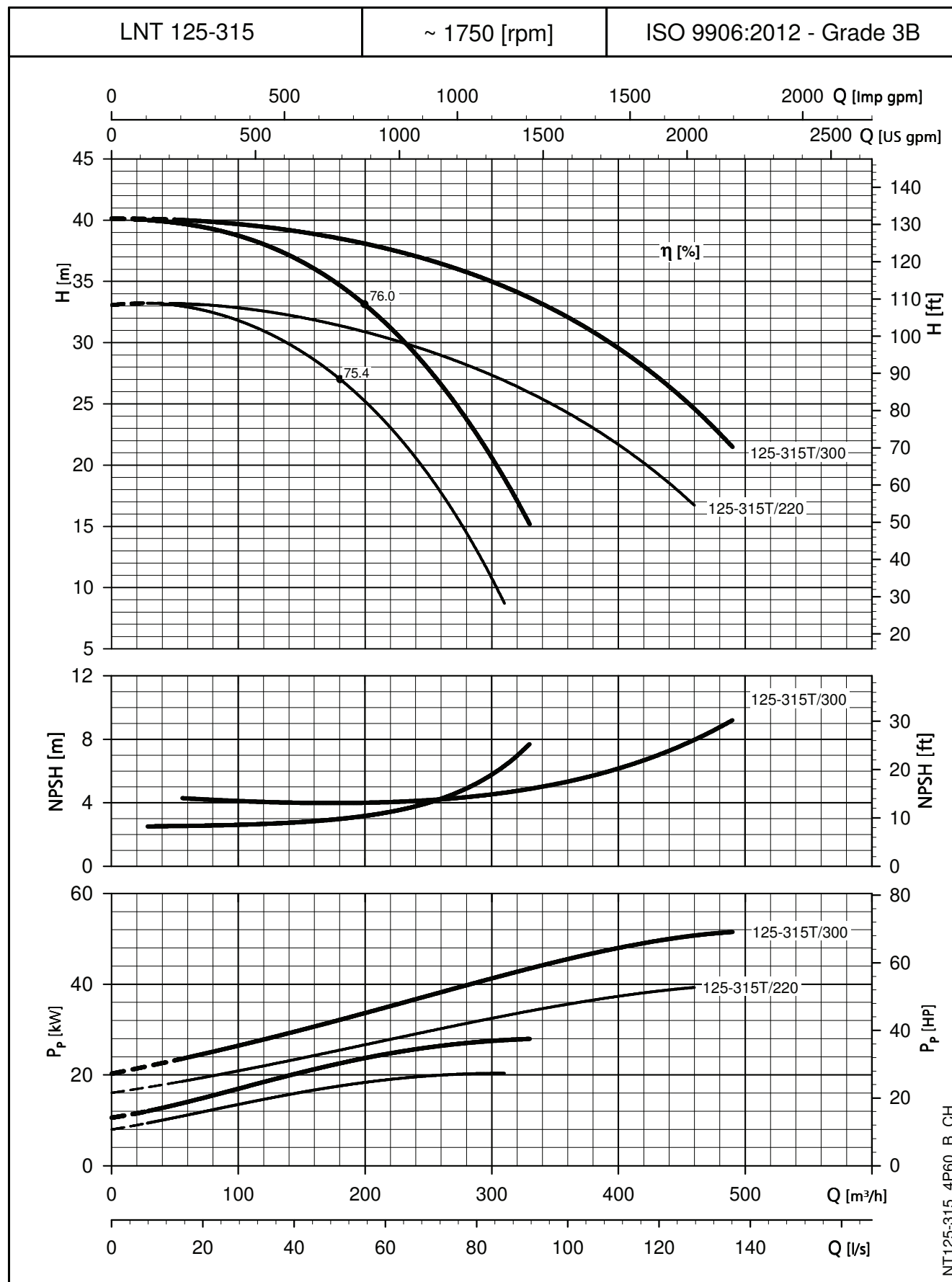
The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNT SERIES

OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



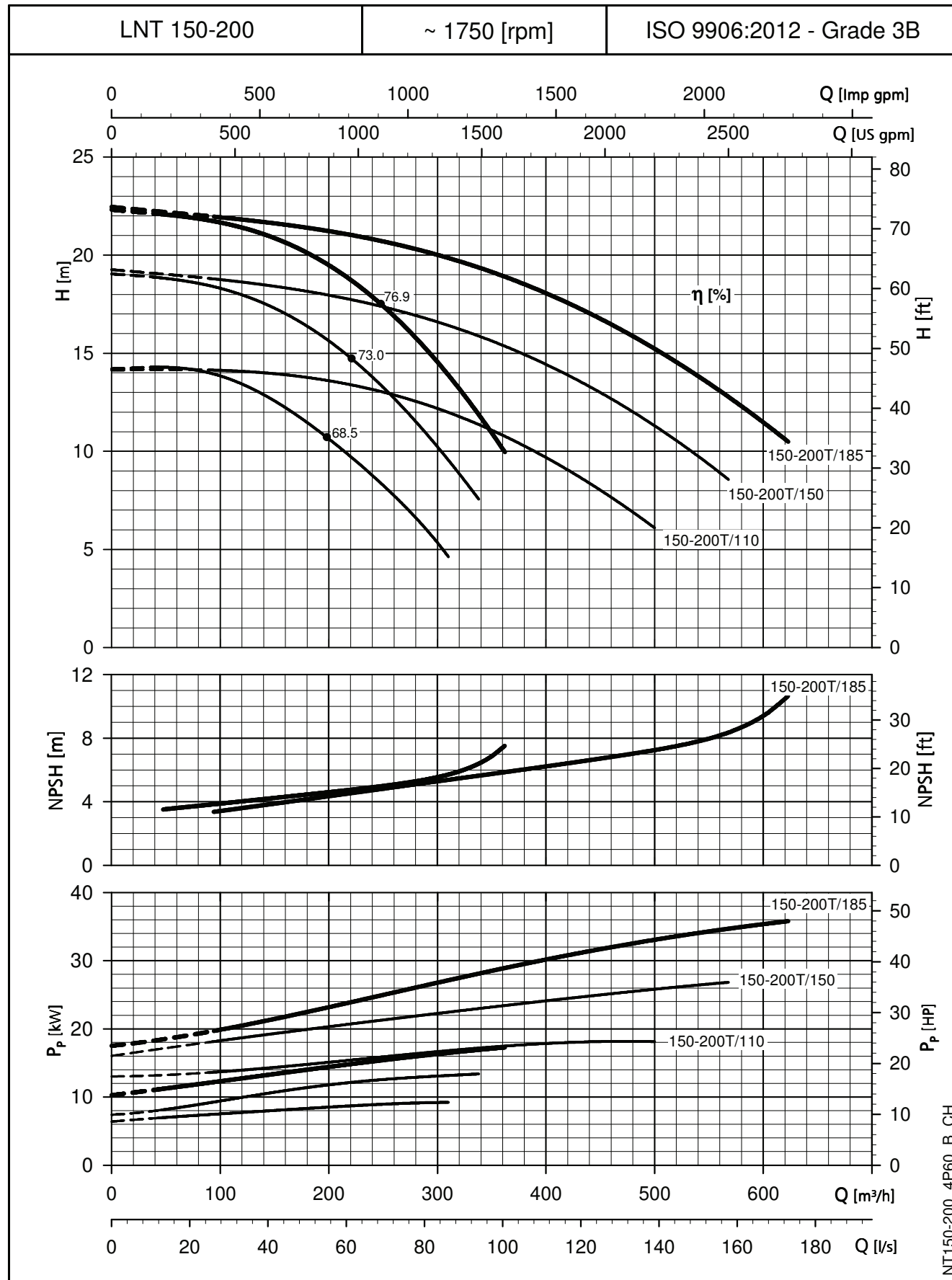
The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-LNT 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-LNT SERIES

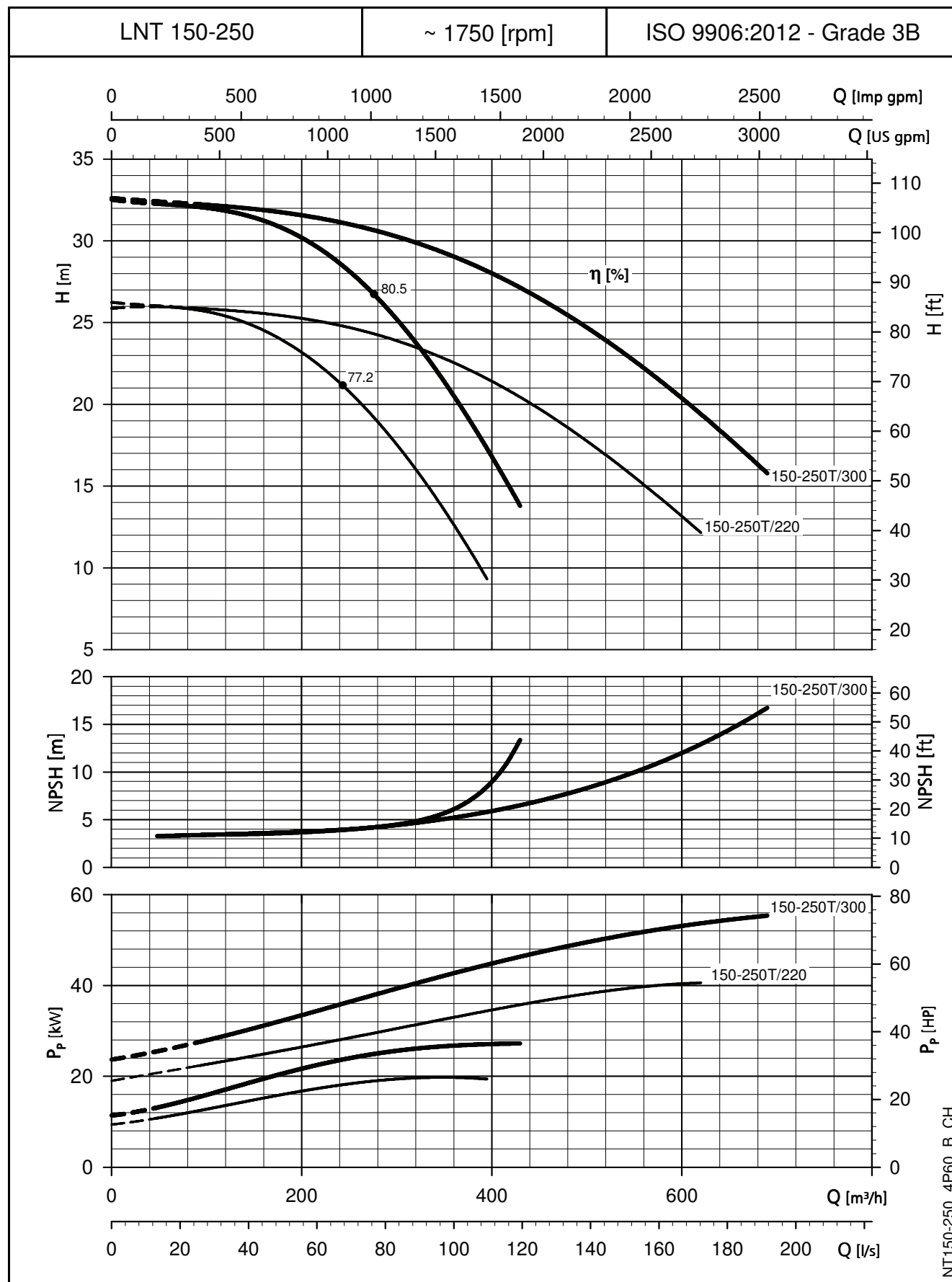
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



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-LNT SERIES

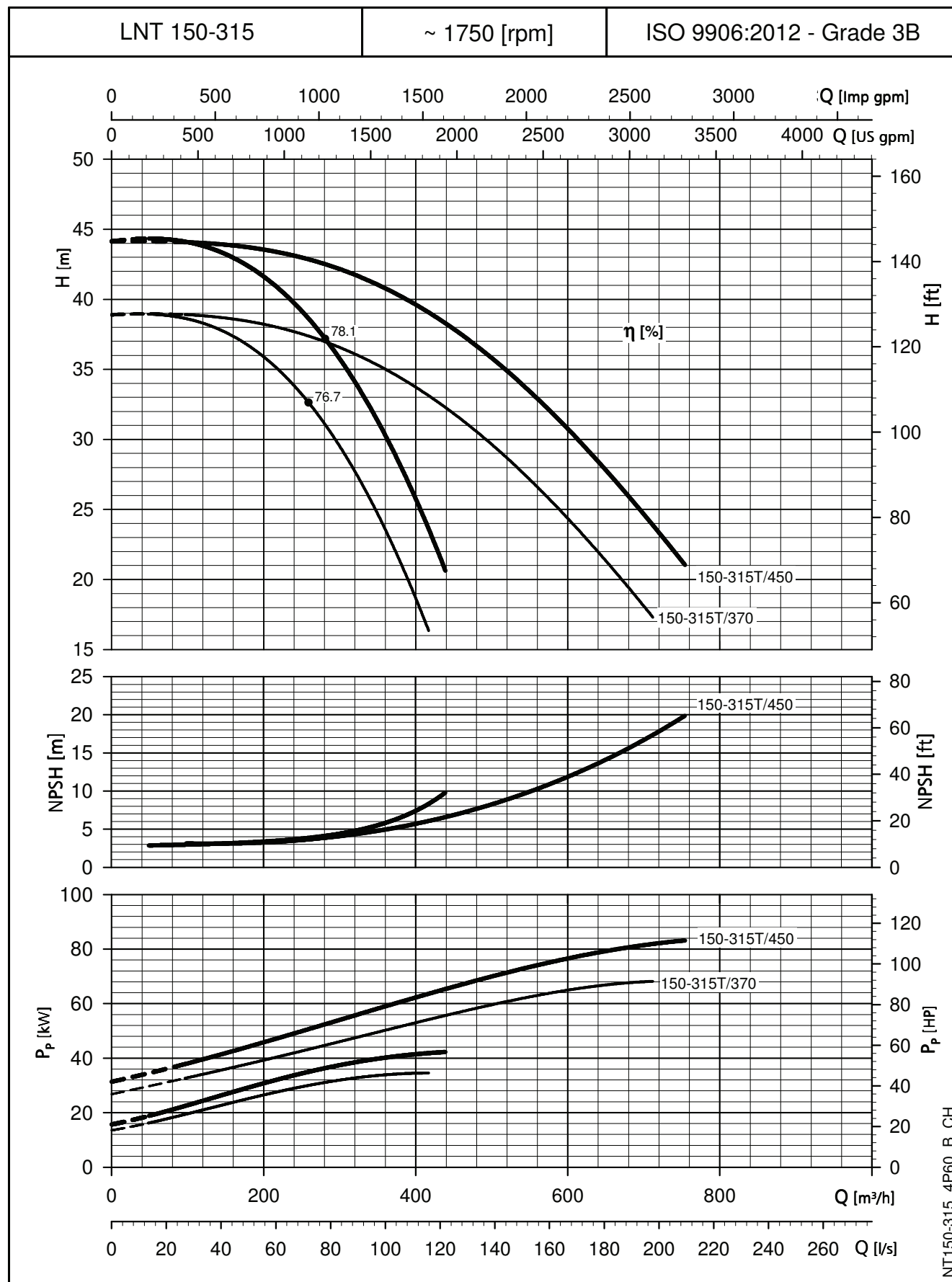
OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



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-LNT SERIES

OPERATING CHARACTERISTICS AT 60 Hz, 4 POLES



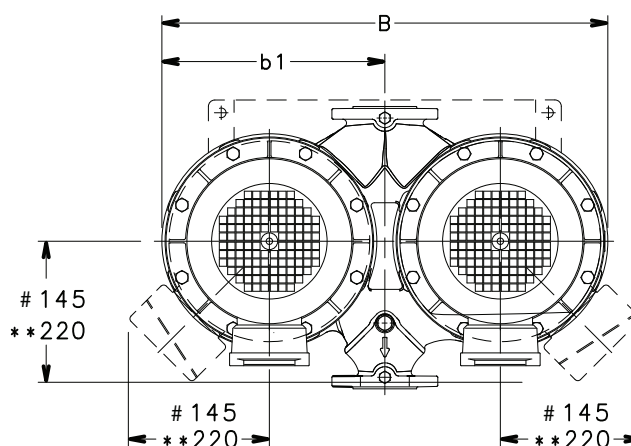
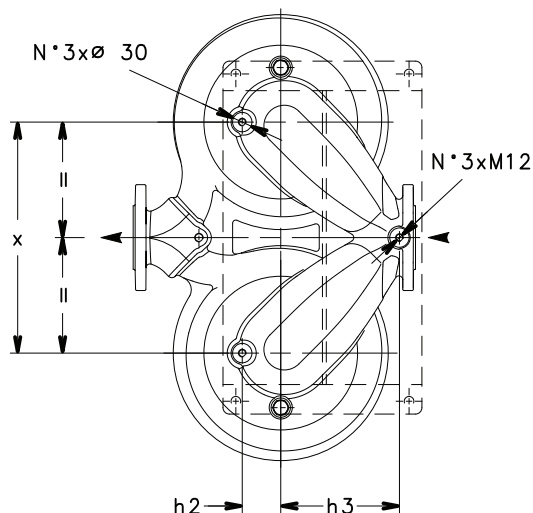
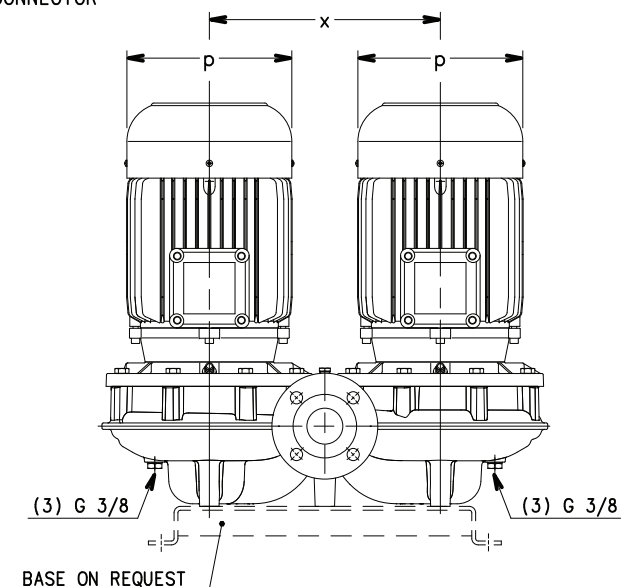
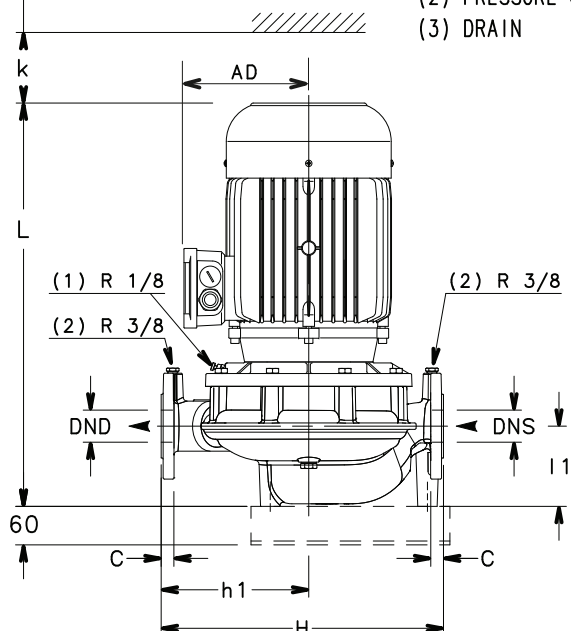
The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

DIMENSIONS AND WEIGHTS

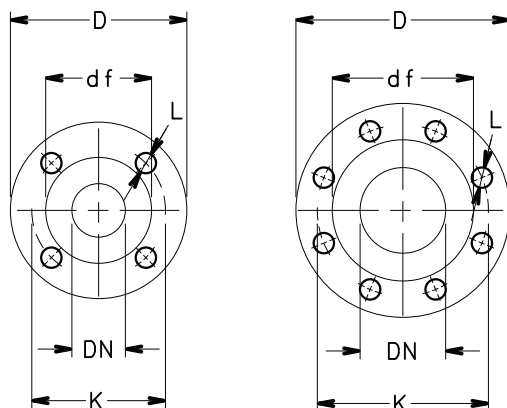
LNTE 32, 40, 50, 65, 80, 100 SERIES
DIMENSIONS AND WEIGHTS AT 60 Hz, 2 POLES

CLEARANCE FOR DISASSEMBLY

- (1) AIR VALVE
(2) PRESSURE GAUGE CONNECTOR
(3) DRAIN



** ONLY FOR MODELS WITH
15-18.5-22 kW MOTORS
ONLY FOR MODEL 32-160/40/P



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.

A0022-60-B-DD

LNTE 32, 40, 50, 65, 80, 100 SERIES

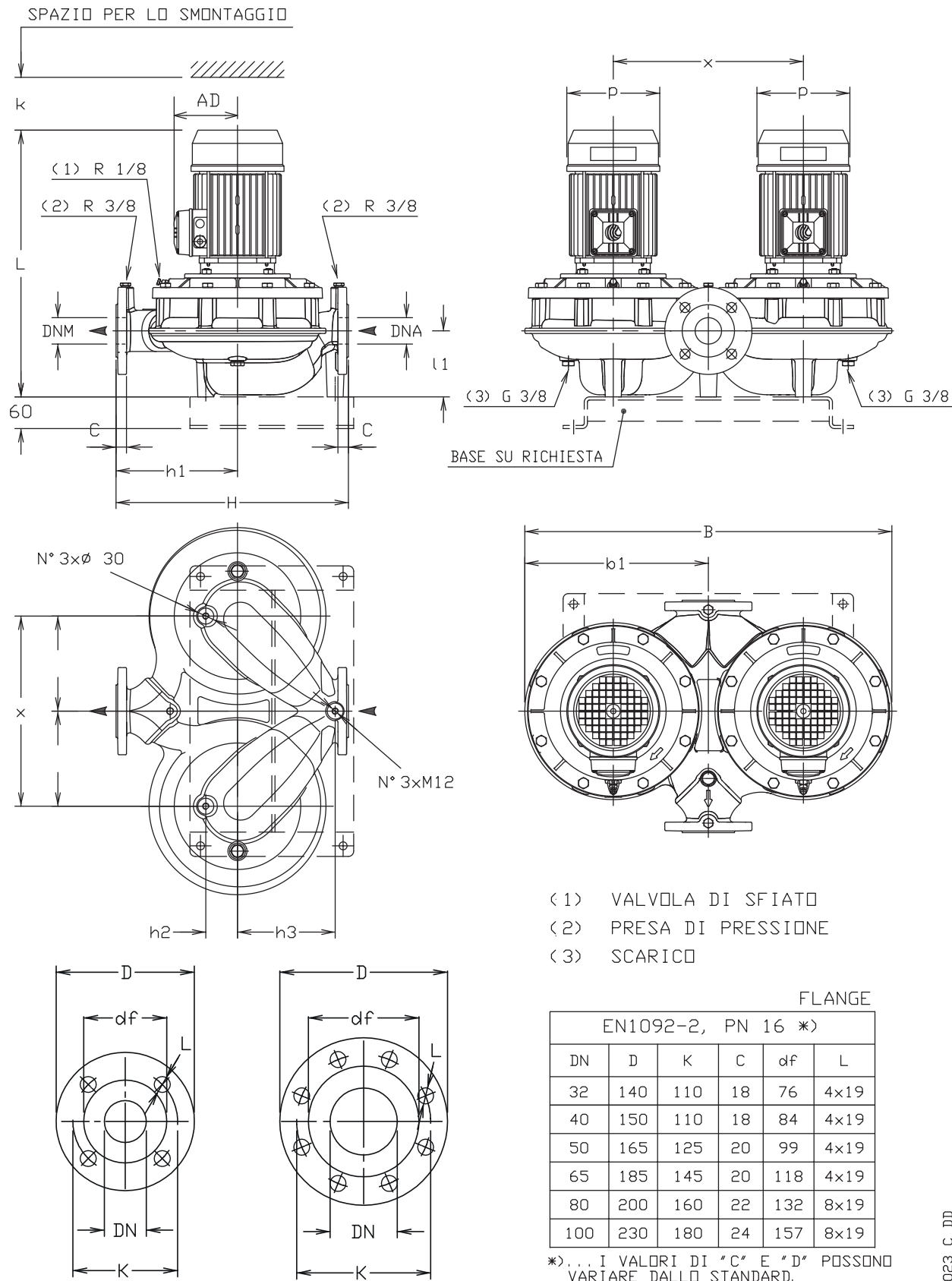
DIMENSIONS AND WEIGHTS AT 60 Hz, 2 POLES

PUMP TYPE LNTE..2	DIMENSIONS (mm)										B	H	L	k	WEIGHT kg
	DND	DNS	b1	h1	h2	h3	l1	AD	p	x					
32-160/11/S	32	32	257	180	40	110	90	129	155	275	514	320	453	75	55
32-160/15/S	32	32	257	180	40	110	90	129	155	275	514	320	453	75	63
32-160/22/P	32	32	257	180	40	110	90	134	174	275	514	320	488	75	77
32-160/30/P	32	32	257	180	40	110	90	134	174	275	514	320	488	75	79
32-160/40/P	32	32	257	180	40	110	90	154	197	275	514	320	509	75	89
40-125/15/S	40	40	274,5	180	52	110	100	129	155	310	549	320	463	94	65
40-125/22/P	40	40	274,5	180	52	110	100	134	174	310	549	320	498	94	79
40-125/30/P	40	40	274,5	180	52	110	100	134	174	310	549	320	498	94	81
40-125/40/P	40	40	274,5	180	52	110	100	154	197	310	549	320	519	94	91
40-125/55/P	40	40	274,5	180	52	110	100	168	214	310	549	320	553	94	109
40-160/40/P	40	40	274,5	180	52	110	100	154	197	310	549	320	519	94	91
40-160/55/P	40	40	274,5	180	52	110	100	168	214	310	549	320	553	94	109
40-160/75/P	40	40	274,5	180	52	110	100	191	256	310	549	331	567	94	147
40-160/92/P	40	40	274,5	180	52	110	100	191	256	310	549	331	605	94	159
40-200/75/P	40	40	372,5	220	65	193	110	191	256	410	745	440	575	104	179
40-200/92/P	40	40	372,5	220	65	193	110	191	256	410	745	440	613	104	191
40-200/110/P	40	40	372,5	220	65	193	110	191	256	410	745	440	613	104	197
40-250/150/P	40	40	372,5	220	65	193	110	240	313	410	745	440	702	104	277
40-250/185/P	40	40	372,5	220	65	193	110	240	313	410	745	440	702	104	299
40-250/220/P	40	40	372,5	220	65	193	110	240	313	410	745	440	702	104	317
50-125/30/P	50	50	275	190	57	120	116	134	174	310	555	340	514	96	90
50-125/40/P	50	50	275	190	57	120	116	154	197	310	555	340	535	96	100
50-125/55/P	50	50	275	190	57	120	116	168	214	310	555	340	569	96	118
50-125/75/P	50	50	275	190	57	120	116	191	256	310	555	340	583	96	156
50-160/55/P	50	50	275	190	57	120	116	168	214	310	555	340	569	96	118
50-160/75/P	50	50	275	190	57	120	116	191	256	310	555	340	583	96	156
50-160/92/P	50	50	275	190	57	120	116	191	256	310	555	340	621	96	168
50-160/110/P	50	50	275	190	57	120	116	191	256	310	555	340	621	96	174
50-200/92/P	50	50	372,5	230	60	185	115	191	256	410	745	440	620	108	203
50-200/110/P	50	50	372,5	230	60	185	115	191	256	410	745	440	620	108	209
50-250/185/P	50	50	372,5	230	60	185	115	240	313	410	745	440	709	108	311
50-250/220/P	50	50	372,5	230	60	185	115	240	313	410	745	440	709	108	329
65-125/55/P	65	65	323	190	75	140	122	168	214	360	646	360	581	100	130
65-125/75/P	65	65	323	190	75	140	122	191	256	360	646	360	595	100	168
65-125/92/P	65	65	323	190	75	140	122	191	256	360	646	360	633	100	180
65-125/110/P	65	65	323	190	75	140	122	191	256	360	646	360	633	100	186
65-160/110/P	65	65	323	190	75	140	122	191	256	360	646	360	633	94	186
65-200/185/P	65	65	377,5	250	76	196	118	240	313	420	762	475	712	105	319
65-200/220/P	65	65	377,5	250	76	196	118	240	313	420	762	475	712	105	337
65-250/220/P	65	65	377,5	250	76	196	118	240	313	420	762	475	712	105	337
80-160/150/P	80	80	374	235	80	110	133	240	313	410	748	420	727	111	305
80-160/185/P	80	80	374	235	80	110	133	240	313	410	748	420	727	111	327
80-160/220/P	80	80	374	235	80	110	133	240	313	410	748	420	727	111	345
100-160/185/P	100	100	374	280	87	125	158	240	313	410	748	500	757	123	339
100-160/220/P	100	100	374	280	87	125	158	240	313	410	748	500	757	123	357

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

LNTE-32-100_2p60-en_b_td

LNTE 32, 40, 50, 65, 80, 100 SERIES
DIMENSIONS AND WEIGHTS AT 60 Hz, 4 POLES



A0023_C_DD

LNTE 32, 40, 50, 65, 80, 100 SERIES

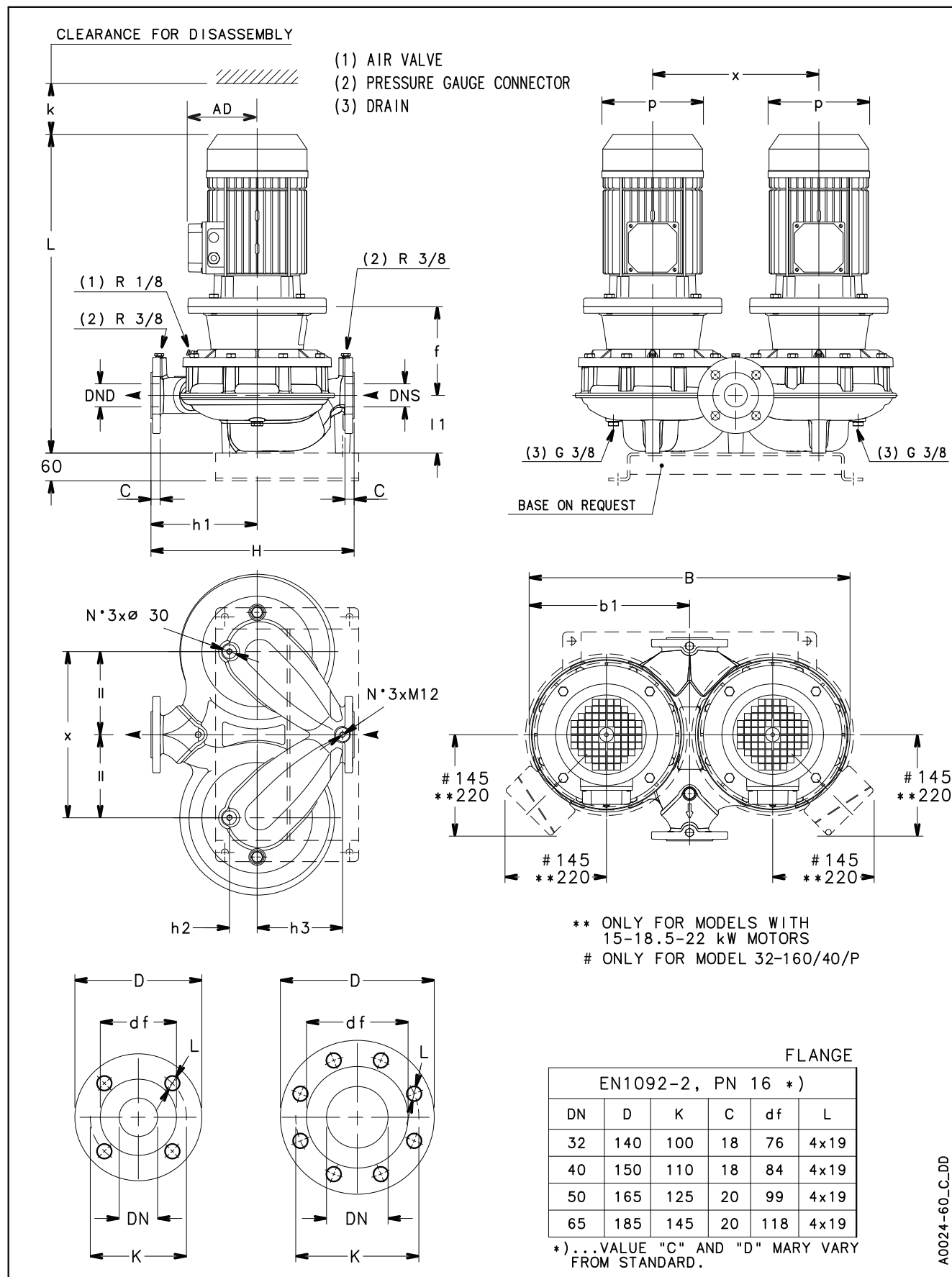
DIMENSIONS AND WEIGHTS AT 60 Hz, 4 POLES

PUMP TYPE LNTE..4	DIMENSIONS (mm)										B	H	L	k	WEIGHT kg
	DND	DNS	b1	h1	h2	h3	l1	AD	p	x					
32-160/02/X	32	32	257	180	40	110	90	110	138	275	514	320	385	75	46
32-160/03/X	32	32	257	180	40	110	90	110	138	275	514	320	385	75	46
32-160/05/X	32	32	257	180	40	110	90	128	159	275	514	320	389	75	52
40-125/02/X	40	40	274,5	180	52	110	100	110	138	310	549	320	395	94	48
40-125/03/X	40	40	274,5	180	52	110	100	110	138	310	549	320	395	94	48
40-125/05/X	40	40	274,5	180	52	110	100	128	159	310	549	320	399	94	54
40-125/07/X	40	40	274,5	180	52	110	100	128	159	310	549	320	431	94	63
40-160/05/X	40	40	274,5	180	52	110	100	128	159	310	549	320	399	94	54
40-160/07/X	40	40	274,5	180	52	110	100	128	159	310	549	320	431	94	63
40-160/11/P	40	40	274,5	180	52	110	100	134	174	310	549	320	498	94	79
40-200/11/P	40	40	372,5	220	65	193	110	134	174	410	745	440	506	104	107
40-200/15/P	40	40	372,5	220	65	193	110	134	174	410	745	440	506	104	115
40-250/22/P	40	40	372,5	220	65	193	110	168	214	410	745	440	530	104	135
40-250/30A/P	40	40	372,5	220	65	193	110	168	214	410	745	440	561	104	143
40-250/30/P	40	40	372,5	220	65	193	110	168	214	410	745	440	561	104	143
40-250/40/P	40	40	372,5	220	65	193	110	168	198	410	745	440	590	104	181
50-125/03/X	50	50	275	190	57	120	116	110	138	310	555	340	411	96	57
50-125/05/X	50	50	275	190	57	120	116	128	159	310	555	340	415	96	63
50-125/07/X	50	50	275	190	57	120	116	128	159	310	555	340	447	96	72
50-125/11/P	50	50	275	190	57	120	116	134	174	310	555	340	514	96	88
50-160/07/X	50	50	275	190	57	120	116	128	159	310	555	340	447	96	72
50-160/11/P	50	50	275	190	57	120	116	134	174	310	555	340	514	96	88
50-160/15A/P	50	50	275	190	57	120	116	134	174	310	555	340	514	96	96
50-160/15/P	50	50	275	190	57	120	116	134	174	310	555	340	514	96	96
50-200/15/P	50	50	372,5	230	60	185	115	134	174	410	745	440	513	108	127
50-250/22/P	50	50	372,5	230	60	185	115	168	214	410	745	440	537	108	147
50-250/30/P	50	50	372,5	230	60	185	115	168	214	410	745	440	568	108	155
50-250/40/P	50	50	372,5	230	60	185	115	168	198	410	745	440	597	108	193
50-250/55/P	50	50	372,5	230	60	185	115	191	256	410	745	440	620	108	204
65-125/07/X	65	65	323	190	75	140	122	128	159	360	646	360	459	100	84
65-125/11A/P	65	65	323	190	75	140	122	134	174	360	646	360	526	100	96
65-125/11/P	65	65	323	190	75	140	122	134	174	360	646	360	526	100	96
65-125/15/P	65	65	323	190	75	140	122	134	174	360	646	360	526	100	104
65-160/11/P	65	65	323	190	75	140	122	134	174	360	646	360	526	94	96
65-160/15/P	65	65	323	190	75	140	122	134	174	360	646	360	526	94	104
65-200/22/P	65	65	377,5	250	76	196	118	168	214	420	762	475	540	105	155
65-200/30A/P	65	65	377,5	250	76	196	118	168	214	420	762	475	571	105	163
65-200/30/P	65	65	377,5	250	76	196	118	168	214	420	762	475	571	105	163
65-200/40/P	65	65	377,5	250	76	196	118	168	198	420	762	475	616	105	201
65-250/40/P	65	65	377,5	250	76	196	118	168	198	420	762	475	616	105	201
65-250/55/P	65	65	377,5	250	76	196	118	191	256	420	762	475	623	105	211
65-250/75/P	65	65	377,5	250	76	196	118	191	256	420	762	475	623	105	221
80-160/22A/P	80	80	374	235	80	110	133	168	214	410	748	420	555	111	163
80-160/22/P	80	80	374	235	80	110	133	168	214	410	748	420	555	111	163
80-160/30/P	80	80	374	235	80	110	133	168	214	410	748	420	586	111	171
80-160/40/P	80	80	374	235	80	110	133	168	198	410	748	420	615	111	209
100-160/22/P	100	100	374	280	87	125	158	168	214	410	748	500	585	123	175
100-160/30/P	100	100	374	280	87	125	158	168	214	410	748	500	616	123	183
100-160/40/P	100	100	374	280	87	125	158	168	198	410	748	500	645	123	221
100-160/55/P	100	100	374	280	87	125	158	191	256	410	748	500	668	123	231

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

LNTE-32-100_4p60-en_c_td

LNTS 32, 40, 50, 65 SERIES
DIMENSIONS AND WEIGHTS AT 60 Hz, 2 POLES



LNTS 32, 40, 50, 65 SERIES

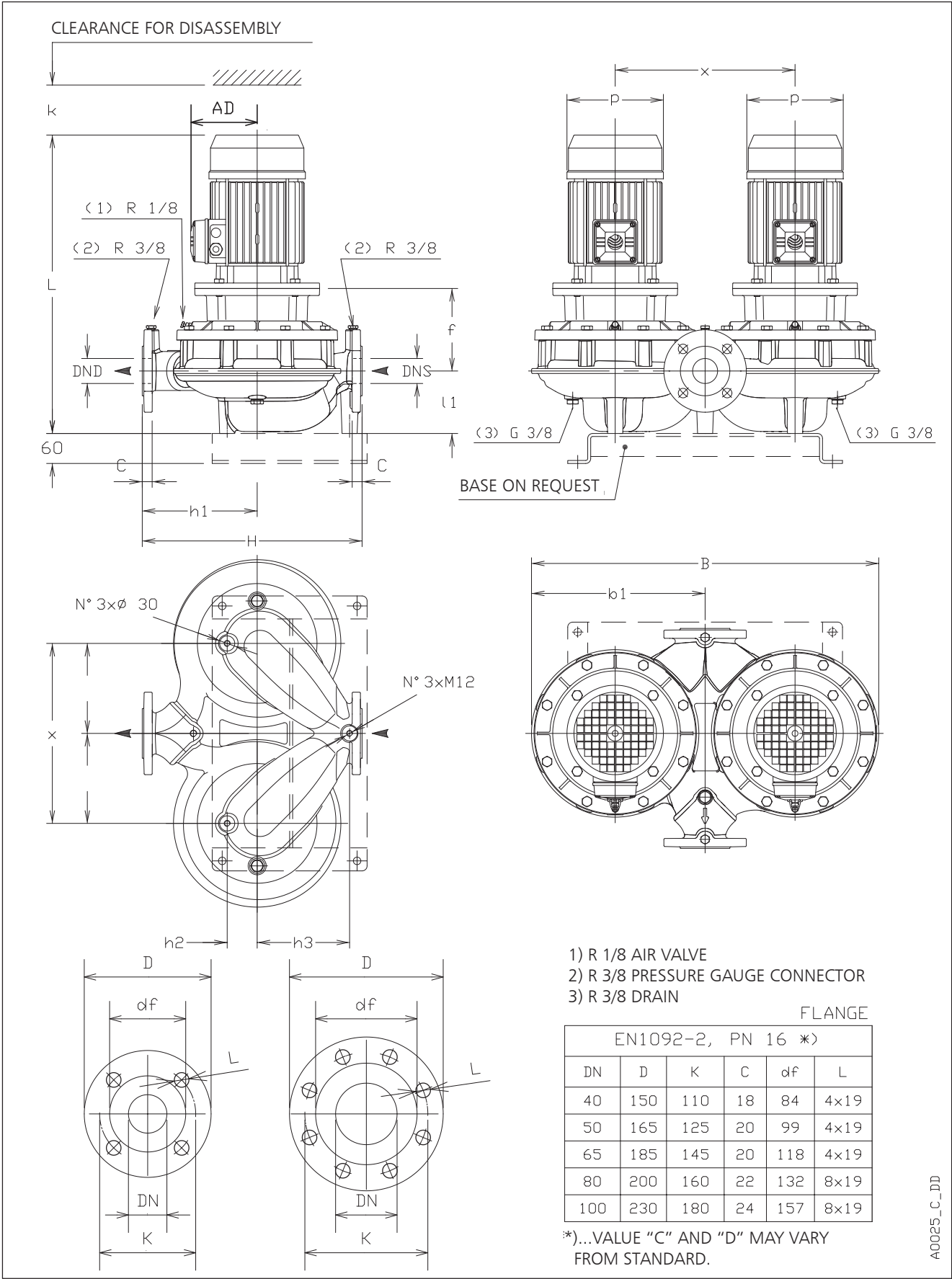
DIMENSIONS AND WEIGHTS AT 60 Hz, 2 POLES

PUMP TYPE LNTS..2	DIMENSIONS (mm)											B	H	L	k	WEIGHT kg
	DND	DNS	b1	f	h1	h2	h3	l1	AD	p	x					
32-160/11/S	32	32	257	155	180	40	110	90	129	155	275	514	320	508	75	61
32-160/15/S	32	32	257	155	180	40	110	90	129	155	275	514	320	508	75	69
32-160/22/P	32	32	257	155	180	40	110	90	134	174	275	514	320	543	75	83
32-160/30/P	32	32	257	165	180	40	110	90	134	174	275	514	320	553	75	93
32-160/40/P	32	32	257	165	180	40	110	90	154	197	275	514	320	574	75	99
40-125/15/S	40	40	274,5	155	180	52	110	100	129	155	310	549	320	518	94	71
40-125/22/P	40	40	274,5	155	180	52	110	100	134	174	310	549	320	553	94	85
40-125/30/P	40	40	274,5	165	180	52	110	100	134	174	310	549	320	563	94	95
40-125/40/P	40	40	274,5	165	180	52	110	100	154	197	310	549	320	584	94	101
40-125/55/P	40	40	274,5	192	180	52	110	100	168	214	310	549	320	667	94	127
40-160/40/P	40	40	274,5	165	180	52	110	100	154	197	310	549	320	584	94	101
40-160/55/P	40	40	274,5	192	180	52	110	100	168	214	310	549	320	667	94	127
40-160/75/P	40	40	274,5	192	180	52	110	100	191	256	310	549	331	659	94	165
40-200/75/P	40	40	372,5	190	220	65	193	110	191	256	410	745	440	667	104	197
40-200/110A/P	40	40	372,5	220	220	65	193	110	191	256	410	745	440	758	104	231
40-200/110/P	40	40	372,5	220	220	65	193	110	191	256	410	745	440	758	104	231
40-250/150/P	40	40	372,5	220	220	65	193	110	240	313	410	745	440	824	104	297
40-250/185/P	40	40	372,5	220	220	65	193	110	240	313	410	745	440	824	104	315
40-250/220/P	40	40	372,5	220	220	65	193	110	240	313	410	745	440	824	104	337
50-125/30/P	50	50	275	165	190	57	120	116	134	174	310	555	340	579	96	104
50-125/40/P	50	50	275	165	190	57	120	116	154	197	310	555	340	600	96	110
50-125/55/P	50	50	275	192	190	57	120	116	168	214	310	555	340	683	96	135
50-125/75/P	50	50	275	192	190	57	120	116	191	256	310	555	340	675	96	174
50-160/55/P	50	50	275	192	190	57	120	116	168	214	310	555	340	683	96	135
50-160/75/P	50	50	275	192	190	57	120	116	191	256	310	555	340	675	96	174
50-200/110A/P	50	50	372,5	222	230	60	185	115	191	256	410	745	440	765	108	243
50-200/110/P	50	50	372,5	222	230	60	185	115	191	256	410	745	440	765	108	243
50-200/150/P	50	50	372,5	222	230	60	185	115	240	313	410	745	440	831	108	309
50-200/185/P	50	50	372,5	222	230	60	185	115	240	313	410	745	440	831	108	327
50-250/185/P	50	50	372,5	222	230	60	185	115	240	313	410	745	440	831	108	327
50-250/220/P	50	50	372,5	222	230	60	185	115	240	313	410	745	440	831	108	349
65-125/55/P	65	65	323	198	190	75	140	122	168	214	360	646	360	695	100	149
65-125/75/P	65	65	323	198	190	75	140	122	191	256	360	646	360	687	100	187
65-125/110A/P	65	65	323	228	190	75	140	122	191	256	360	646	360	778	100	230
65-125/110/P	65	65	323	228	190	75	140	122	191	256	360	646	360	778	100	230
65-160/110/P	65	65	323	228	190	75	140	122	191	256	360	646	360	778	94	230
65-160/150/P	65	65	323	228	190	75	140	122	240	313	360	646	360	844	94	296
65-160/185/P	65	65	323	228	190	75	140	122	240	313	360	646	360	844	94	314
65-200/185/P	65	65	377,5	222	250	76	196	118	240	313	420	762	475	834	105	335
65-200/220/P	65	65	377,5	222	250	76	196	118	240	313	420	762	475	834	105	357
65-200/300/L	65	65	377,5	228	250	76	196	118	285	408	420	762	475	1017	105	480
65-250/220/P	65	65	377,5	222	250	76	196	118	240	313	420	762	475	834	105	357
65-250/300/L	65	65	377,5	228	250	76	196	118	285	408	420	762	475	1017	105	480
65-250/370/L	65	65	377,5	228	250	76	196	118	285	408	420	762	475	1017	105	498

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

LNTS-32-65_2p60-en_b_td

LNTS 32, 40, 50, 65 SERIES
DIMENSIONS AND WEIGHTS AT 60 Hz, 4 POLES



A0025_C_DD

LNTS 32, 40, 50, 65 SERIES

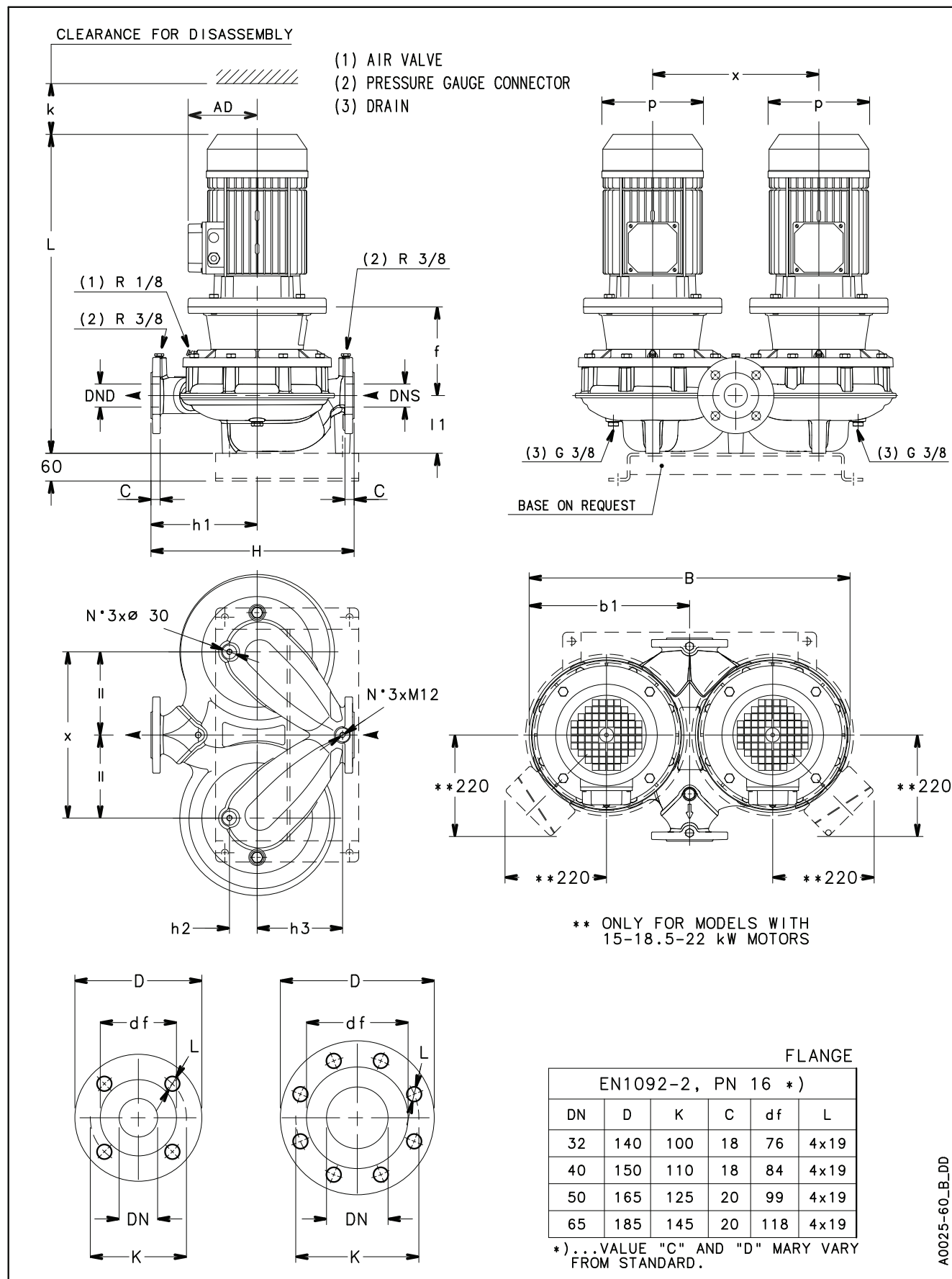
DIMENSIONS AND WEIGHTS AT 60 Hz, 4 POLES

PUMP TYPE LNTS..4	DIMENSIONS (mm)											B	H	L	k	WEIGHT kg
	DND	DNS	b1	f	h1	h2	h3	l1	AD	p	x					
32-160/05/X	32	32	257	155	180	40	110	90	128	159	275	514	320	476	75	60
40-125/05/X	40	40	274,5	155	180	52	110	100	128	159	310	549	320	486	94	62
40-125/07/X	40	40	274,5	155	180	52	110	100	128	159	310	549	320	486	94	69
40-160/05/X	40	40	274,5	155	180	52	110	100	128	159	310	549	320	486	94	62
40-160/07/X	40	40	274,5	155	180	52	110	100	128	159	310	549	320	486	94	69
40-160/11/P	40	40	274,5	155	180	52	110	100	134	174	310	549	320	553	94	81
40-200/11/P	40	40	372,5	152	220	65	193	110	134	174	410	745	440	561	104	113
40-200/15/P	40	40	372,5	152	220	65	193	110	134	174	410	745	440	561	104	121
40-200/22/P	40	40	372,5	162	220	65	193	110	168	214	410	745	440	595	104	143
40-250/22/P	40	40	372,5	162	220	65	193	110	168	214	410	745	440	595	104	143
40-250/30A/P	40	40	372,5	162	220	65	193	110	168	214	410	745	440	626	104	151
40-250/30/P	40	40	372,5	162	220	65	193	110	168	214	410	745	440	626	104	151
40-250/40/P	40	40	372,5	162	220	65	193	110	168	198	410	745	440	655	104	189
50-125/05/X	50	50	275	155	190	57	120	116	128	159	310	555	340	502	96	71
50-125/07/X	50	50	275	155	190	57	120	116	128	159	310	555	340	502	96	78
50-125/11/P	50	50	275	155	190	57	120	116	134	174	310	555	340	569	96	90
50-160/07/X	50	50	275	155	190	57	120	116	128	159	310	555	340	502	96	78
50-160/11/P	50	50	275	155	190	57	120	116	134	174	310	555	340	569	96	90
50-160/15A/P	50	50	275	155	190	57	120	116	134	174	310	555	340	569	96	98
50-160/15/P	50	50	275	155	190	57	120	116	134	174	310	555	340	569	96	98
50-200/15/P	50	50	372,5	155	230	60	185	115	134	174	410	745	440	568	108	133
50-200/22/P	50	50	372,5	165	230	60	185	115	168	214	410	745	440	602	108	154
50-200/30/P	50	50	372,5	165	230	60	185	115	168	214	410	745	440	633	108	163
50-250/30/P	50	50	372,5	165	230	60	185	115	168	214	410	745	440	633	108	163
50-250/40/P	50	50	372,5	165	230	60	185	115	168	198	410	745	440	662	108	201
50-250/55/P	50	50	372,5	192	230	60	185	115	191	256	410	745	440	712	108	223
65-125/07/X	65	65	323	161	190	75	140	122	128	159	360	646	360	514	100	91
65-125/11A/P	65	65	323	161	190	75	140	122	134	174	360	646	360	581	100	103
65-125/11/P	65	65	323	161	190	75	140	122	134	174	360	646	360	581	100	103
65-125/15/P	65	65	323	161	190	75	140	122	134	174	360	646	360	581	100	111
65-160/11/P	65	65	323	161	190	75	140	122	134	174	360	646	360	581	94	103
65-160/15/P	65	65	323	161	190	75	140	122	134	174	360	646	360	581	94	111
65-160/22/P	65	65	323	171	190	75	140	122	168	174	360	646	360	615	94	132
65-160/30/P	65	65	323	171	190	75	140	122	168	174	360	646	360	646	94	140
65-200/22/P	65	65	377,5	165	250	76	196	118	168	214	420	762	475	605	105	163
65-200/30A/P	65	65	377,5	165	250	76	196	118	168	214	420	762	475	636	105	171
65-200/30/P	65	65	377,5	165	250	76	196	118	168	214	420	762	475	636	105	171
65-200/40/P	65	65	377,5	165	250	76	196	118	168	198	420	762	475	665	105	209
65-250/40/P	65	65	377,5	165	250	76	196	118	168	198	420	762	475	665	105	209
65-250/55/P	65	65	377,5	192	250	76	196	118	191	256	420	762	475	715	105	231
65-250/75/P	65	65	377,5	192	250	76	196	118	191	256	420	762	475	715	105	239

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

LNTS-32-65_4p60-en_c_td

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



LNTS 80, 100 SERIES

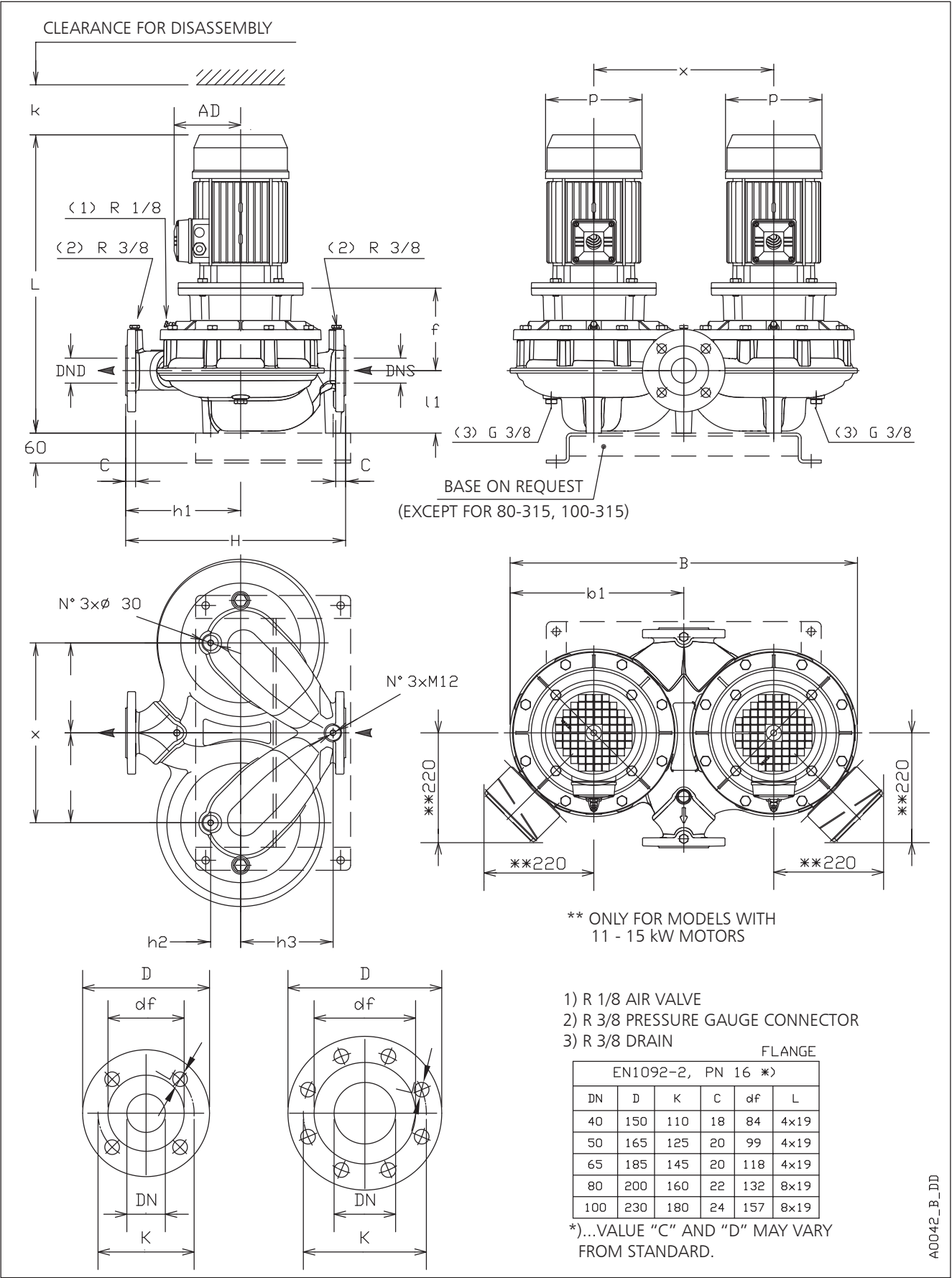
DIMENSIONS AND WEIGHTS AT 60 Hz, 2 POLES

PUMP TYPE LNTS..2	DIMENSIONS (mm)											B	H	L	k	WEIGHT kg
	DND	DNS	b1	f	h1	h2	h3	l1	AD	p	x					
80-160/150/P	80	80	374	222	235	80	110	133	240	313	410	748	420	849	111	325
80-160/185/P	80	80	374	222	235	80	110	133	240	313	410	748	420	849	111	343
80-160/220/P	80	80	374	222	235	80	110	133	240	313	410	748	420	849	111	365
80-200/220/P	80	80	377,5	240	275	85	140	132	240	313	420	766	500	866	130	365
80-200/300/L	80	80	377,5	246	275	85	140	132	285	408	420	766	500	1049	130	489
80-200/370/L	80	80	377,5	246	275	85	140	132	285	408	420	766	500	1049	130	491
100-160/185/P	100	100	374	227	280	87	125	158	240	313	410	748	500	879	123	355
100-160/220/P	100	100	374	227	280	87	125	158	240	313	410	748	500	879	123	377

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

LNTS-80-100_2p60-en_b_td

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



A0042_B_DD

LNTS 80, 100 SERIES

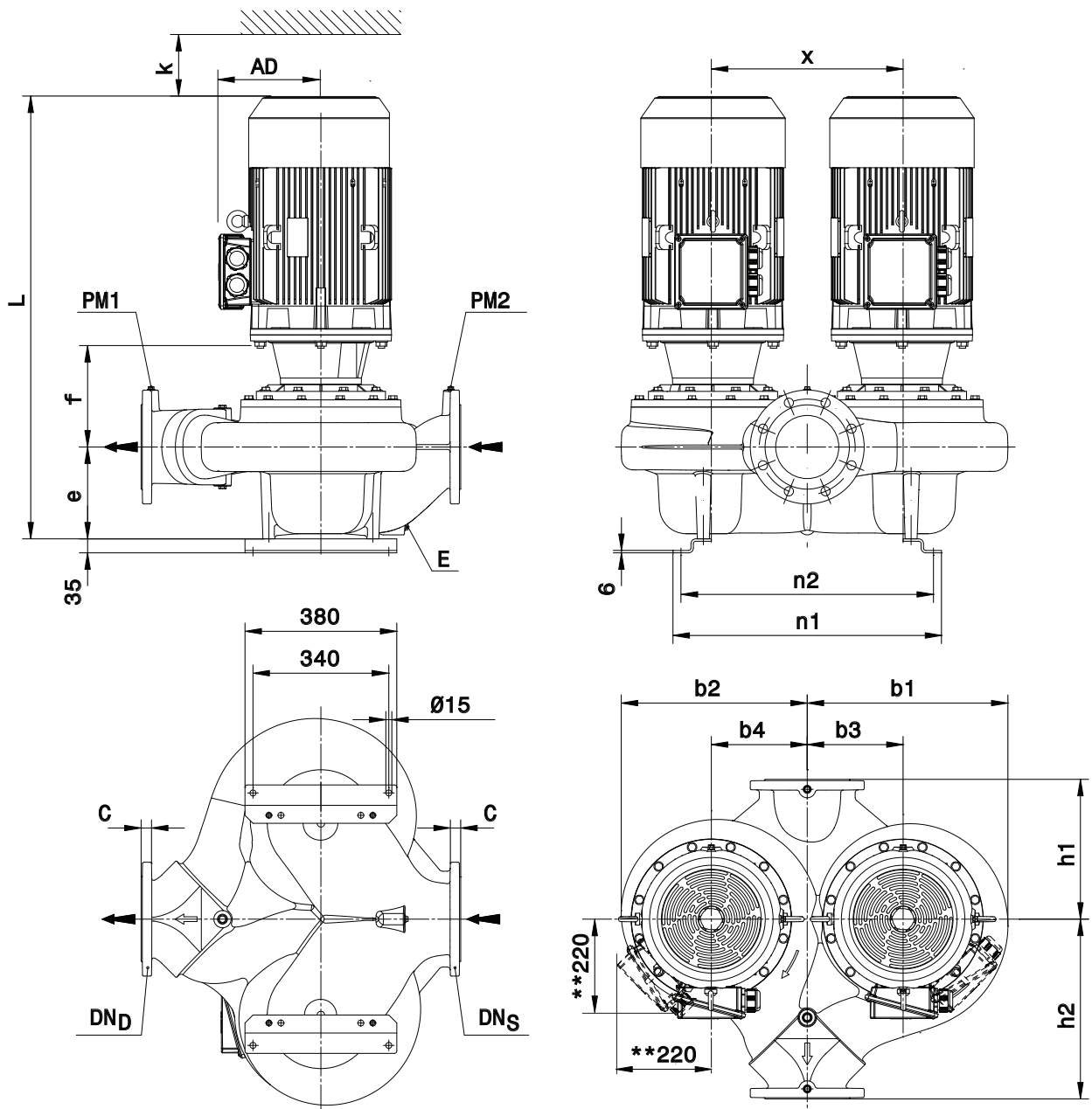
DIMENSIONS AND WEIGHTS AT 60 Hz, 4 POLES

PUMP TYPE LNTS..4	DIMENSIONS (mm)											B	H	L	k
	DND	DNS	b1	f	h1	h2	h3	l1	AD	p	x				
80-160/22A/P	80	80	374	165	235	80	110	133	168	214	410	748	420	620	111
80-160/22/P	80	80	374	165	235	80	110	133	168	214	410	748	420	620	111
80-160/30/P	80	80	374	165	235	80	110	133	168	214	410	748	420	651	111
80-160/40/P	80	80	374	165	235	80	110	133	168	198	410	748	420	680	111
80-200/30/P	80	80	377,5	183	275	85	140	132	168	214	420	766	500	668	130
80-200/40/P	80	80	377,5	183	275	85	140	132	168	214	420	766	500	713	130
80-200/55A/P	80	80	377,5	210	275	85	140	132	191	256	420	766	500	747	130
80-200/55/P	80	80	377,5	210	275	85	140	132	191	256	420	766	500	747	130
80-200/75/P	80	80	377,5	210	275	85	140	132	191	256	420	766	500	747	130
80-250/110A/P	80	80	377,5	240	275	85	140	132	240	313	420	766	500	866	130
80-250/110/P	80	80	377,5	240	275	85	140	132	240	313	420	766	500	866	130
80-315/150/P	80	80	433	240	330	90	140	145	240	256	420	851	620	879	140
80-315/185/L	80	80	433	240	330	90	140	145	253	358	420	851	620	976	140
80-315/220/L	80	80	433	240	330	90	140	145	253	358	420	851	620	976	140
80-315/300/L	80	80	433	246	330	90	140	145	285	408	420	851	620	1062	140
100-160/22/P	100	100	374	170	280	87	125	158	168	214	410	748	500	650	123
100-160/30/P	100	100	374	170	280	87	125	158	168	214	410	748	500	681	123
100-160/40/P	100	100	374	170	280	87	125	158	168	214	410	748	500	710	123
100-160/55/P	100	100	374	197	280	87	125	158	191	256	410	748	500	760	123
100-200/55/P	100	100	381	210	300	90	160	179	191	256	420	783	550	794	152
100-200/75/P	100	100	381	210	300	90	160	179	191	256	420	783	550	794	152
100-200/110/P	100	100	381	240	300	90	160	179	240	313	420	783	550	913	152
100-250/75/P	100	100	381	210	300	90	160	179	191	256	420	783	550	794	152
100-250/110A/P	100	100	381	240	300	90	160	179	240	313	420	783	550	913	152
100-250/110/P	100	100	381	240	300	90	160	179	240	313	420	783	550	913	152
100-250/150/P	100	100	381	240	300	90	160	179	240	313	420	783	550	913	152
100-315/185/L	100	100	453	240	360	110	155	175	253	358	420	883	670	1006	140
100-315/220/L	100	100	453	240	360	110	155	175	253	358	420	883	670	1006	140
100-315/300/L	100	100	453	246	360	110	155	175	285	408	420	883	670	1092	140

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

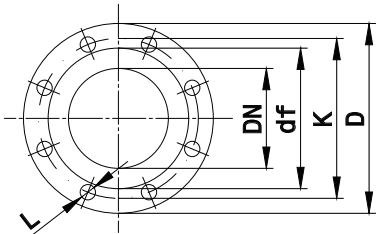
LNTS-80-100_4p6

LNTS 125, 150 SERIES
DIMENSIONS AND WEIGHTS AT 60 Hz, 4 POLES



** ONLY FOR MODELS WITH
11 - 15 kW MOTORS

Flange EN1092-2, PN 16 *)					
DN	D	K	C	df	L
125	255	210	26	184	8x19
150	285	240	26	211	8x23



Connections	
PM1 / PM2	1/4"
E	1/4"

PM1..Pressure gauge connector
PM2..Pressure gauge connector
E....Drain
*)...Value C and D may vary from standard

LNTS_D_DD

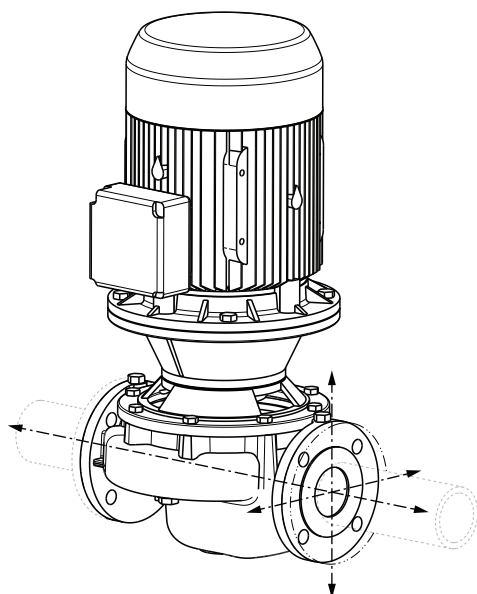
LNTS 125, 150 SERIES

DIMENSIONS AND WEIGHTS AT 60 Hz, 4 POLES

PUMP TYPE LNTS..4	DIMENSIONS (mm)																WEIGHT (kg)
	DND	DNS	e	f	h1	h2	n1	n2	b1	b2	b3	b4	k	AD	x	L	G
125-160/40/P	125	125	200	183	280	340	572	532	412	365	235	160	160	168	395	781	289
125-160/55/P	125	125	200	210	280	340	572	532	412	365	235	160	160	191	395	815	297
125-160/75/P	125	125	200	210	280	340	572	532	412	365	235	160	160	191	395	815	307
125-200/75/P	125	125	200	210	280	340	572	532	412	365	235	160	160	191	395	815	310
125-200/110/P	125	125	200	240	280	340	572	532	412	365	235	160	160	240	395	934	438
125-200/150/P	125	125	200	240	280	340	572	532	412	365	235	160	160	240	395	934	446
125-250/150/P	125	125	230	245	350	450	652	612	480	516	250	250	250	240	500	969	531
125-250/185/L	125	125	230	245	350	450	652	612	480	516	250	250	250	253	500	1066	609
125-315/220/L	125	125	230	245	350	450	652	612	480	516	250	250	250	253	500	1066	676
125-315/300/L	125	125	230	251	350	450	652	612	480	516	250	250	250	285	500	1152	771
150-200/110/P	150	150	230	255	375	425	672	632	430	478	235	235	235	240	470	979	526
150-200/150/P	150	150	230	255	375	425	672	632	430	478	235	235	235	240	470	979	534
150-200/185/L	150	150	230	255	375	425	672	632	430	478	235	235	235	253	470	1076	612
150-250/220/L	150	150	230	240	350	450	632	592	416	465	218	218	218	253	435	1061	620
150-250/300/L	150	150	230	246	350	450	632	592	416	465	218	218	218	285	435	1147	715
150-315/370/L	150	150	230	284	350	450	672	632	466	503	240	240	240	309	480	1215	1059
150-315/450/L	150	150	230	284	350	450	672	632	466	503	240	240	240	309	480	1215	1129

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

LNTS-125-150_4p60-en_b_td

e-LNT SERIES
FORCES AND MOMENTS AT PUMP FLANGES
Valid for pump hanging in the piping


Forces at the pump flanges calculated according to EN ISO 5199:2002.

When the applied loads do not all attain the maximum values allowed, one of these loads may exceed the normal limit, provided that the following supplementary conditions are satisfied:

- any component of a force or of a moment shall be limited to 1,4 times the maximum allowable value;
- the actual forces and moments acting on each flange are governed by the following formula:

$$\left(\frac{\sum |F_{x,y,z}|}{\sum |F_{max}|}\right)^2 + \left(\frac{\sum |M_{x,y,z}|}{\sum |M_{max}|}\right)^2 \leq 2$$

Cast Iron Casing: EN-GJL-250

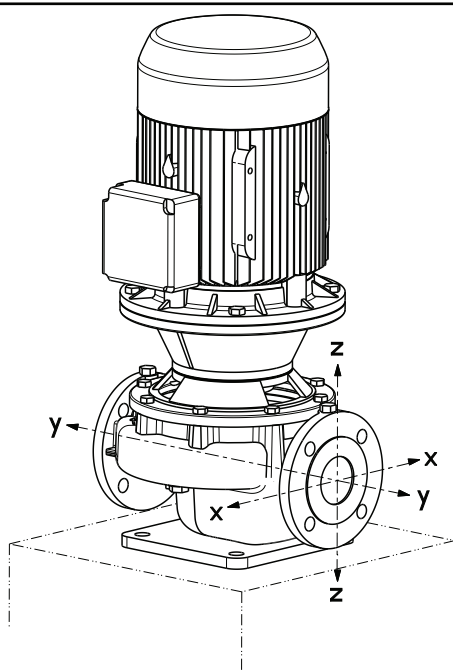
Size	DNS-DND	Suction - Discharge							
		Fx max [N]	Fy max [N]	Fz max [N]	ΣF max [N]	Mx max [Nm]	My max [Nm]	Mz max [Nm]	ΣM max [Nm]
32-160	32	450	530	430	820	550	380	430	800
40-125	40	550	630	500	980	650	450	530	960
40-160	40	550	630	500	980	650	450	530	960
40-200	40	550	630	500	980	650	450	530	960
40-250	40	550	630	500	980	650	450	530	960
50-125	50	750	830	680	1310	700	500	580	1040
50-160	50	750	830	680	1310	700	500	580	1040
50-200	50	750	830	680	1310	700	500	580	1040
50-250	50	750	830	680	1310	700	500	580	1040
65-125	65	930	1050	850	1650	750	550	600	1110
65-160	65	930	1050	850	1650	750	550	600	1110
65-200	65	930	1050	850	1650	750	550	600	1110
65-250	65	930	1050	850	1650	750	550	600	1110
80-160	80	1130	1250	1030	1980	800	580	650	1190
80-200	80	1130	1250	1030	1980	800	580	650	1190
80-250	80	1130	1250	1030	1980	800	580	650	1190
80-315	80	1130	1250	1030	1980	800	580	650	1190
100-160	100	1500	1680	1350	2630	880	630	730	1310
100-200	100	1500	1680	1350	2630	880	630	730	1310
100-250	100	1500	1680	1350	2630	880	630	730	1310
100-315	100	1500	1680	1350	2630	880	630	730	1310
125-160	125	1780	1980	1600	3110	1050	750	950	1610
125-200	125	1780	1980	1600	3110	1050	750	950	1610
125-250	125	1780	1980	1600	3110	1050	750	950	1610
125-315	125	1780	1980	1600	3110	1050	750	950	1610
150-200	150	2250	2500	2030	3930	1250	880	1030	1850
150-250	150	2250	2500	2030	3930	1250	880	1030	1850
150-315	150	2250	2500	2030	3930	1250	880	1030	1850
200-250	200	3000	3350	2700	5250	1630	1150	1330	2400
200-315	200	3000	3350	2700	5250	1630	1150	1330	2400
200-400	200	3000	3350	2700	5250	1630	1150	1330	2400
250-315	250	3000	3350	2700	5250	1630	1150	1330	2400

LNE-LNT_load_pipe-en_a_td

e-LNT SERIES

FORCES AND MOMENTS AT PUMP FLANGES

Valid for pump standing on the support foot



Forces at the pump flanges calculated according to EN ISO 5199:2002.

When the applied loads do not all attain the maximum values allowed, one of these loads may exceed the normal limit, provided that the following supplementary conditions are satisfied:

- any component of a force or of a moment shall be limited to 1,4 times the maximum allowable value;
- the actual forces and moments acting on each flange are governed by the following formula:

$$\left(\frac{\sum |F_{x,y,z}|}{\sum |F_{max}|}\right)^2 + \left(\frac{\sum |M_{x,y,z}|}{\sum |M_{max}|}\right)^2 \leq 2$$

Cast Iron Casing: EN-GJL-250

Size	DNS-DND	Suction - Discharge							
		Fx max [N]	Fy max [N]	Fz max [N]	ΣF max [N]	Mx max [Nm]	My max [Nm]	Mz max [Nm]	ΣM max [Nm]
32-160	32	340	400	320	620	300	130	180	380
40-125	40	420	470	380	740	400	200	280	530
40-160	40	420	470	380	740	400	200	280	530
40-200	40	420	470	380	740	400	200	280	530
40-250	40	420	470	380	740	400	200	280	530
50-125	50	570	620	510	990	450	250	330	620
50-160	50	570	620	510	990	450	250	330	620
50-200	50	570	620	510	990	450	250	330	620
50-250	50	570	620	510	990	450	250	330	620
65-125	65	700	790	640	1240	500	300	350	680
65-160	65	700	790	640	1240	500	300	350	680
65-200	65	700	790	640	1240	500	300	350	680
65-250	65	700	790	640	1240	500	300	350	680
80-160	80	850	940	770	1490	550	330	400	760
80-200	80	850	940	770	1490	550	330	400	760
80-250	80	850	940	770	1490	550	330	400	760
80-315	80	850	940	770	1490	550	330	400	760
100-160	100	1130	1260	1020	1980	630	380	480	880
100-200	100	1130	1260	1020	1980	630	380	480	880
100-250	100	1130	1260	1020	1980	630	380	480	880
100-315	100	1130	1260	1020	1980	630	380	480	880
125-160	125	1330	1480	1200	2330	800	500	700	1180
125-200	125	1330	1480	1200	2330	800	500	700	1180
125-250	125	1330	1480	1200	2330	800	500	700	1180
125-315	125	1330	1480	1200	2330	800	500	700	1180
150-200	150	1690	1880	1520	2950	1000	630	780	1420
150-250	150	1690	1880	1520	2950	1000	630	780	1420
150-315	150	1690	1880	1520	2950	1000	630	780	1420
200-250	200	2250	2520	2030	3950	1380	900	1080	1970
200-315	200	2250	2520	2030	3950	1380	900	1080	1970
200-400	200	2250	2520	2030	3950	1380	900	1080	1970
250-315	250	2250	2520	2030	3950	1380	900	1080	1970

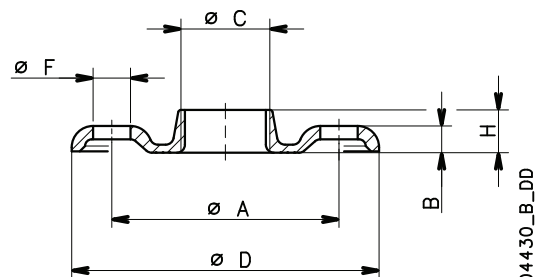
ACCESSORIES

e-LNT SERIES

ROUND THREADED COUNTERFLANGES KIT ACCORDING TO EN 1092-1

DN	CODE KIT	Ø C	DIMENSIONS (mm)					HOLES		PN
			Ø A	B	Ø D	H	Ø F	N°		
32	109398010	Rp 1¼	100	13	140	16	18	4		16
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_b_td



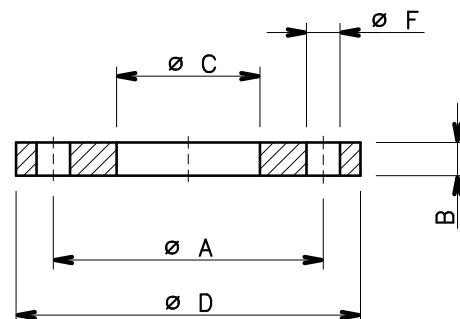
04430_B_DD

e- LNT SERIES

ROUND WELD COUNTERFLANGES KIT ACCORDING TO EN 1092-1

DN	CODE KIT	Ø C	DIMENSIONS (mm)				HOLES		PN
			Ø A	B	Ø D	Ø F	N°		
32	109395832	43	100	18	140	18	4		16
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

Lne-Lnt-ctf-tonde-s-en_b_td



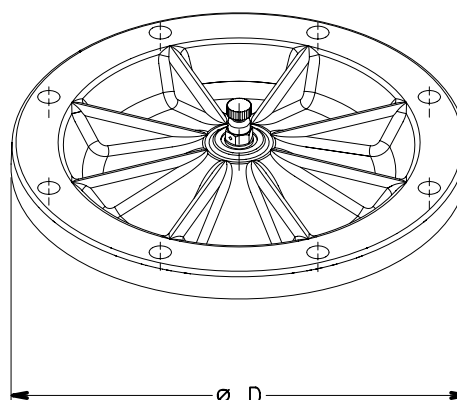
04431_A_DD

LNT (32 ÷ 100) SERIES

BLIND FLANGE KIT

FLANGE KIT		
PUMP TYPE	CODE	Ø D
LNT32-160	109393750	225
LNT40-125 / LNT40-160		
LNT50-125 / LNT50-160		
LNT65-125 / LNT65-160	109393760	274
LNT40-200 / LNT40-250		
LNT50-200 / LNT50-250		
LNT65-200 / LNT65-250	109393770	322
LNT80-125 / LNT80-160		
LNT80-200 / LNT80-250		
LNT100-160		
LNT100-200 / LNT100-250		

LNT-flangia-cieca-en_b_td

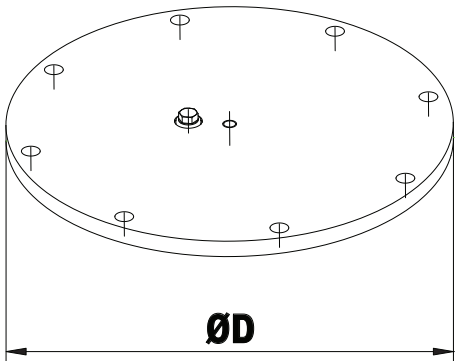


05262_A_DD

**LNT 125, 150 SERIES
BLIND FLANGE KIT**

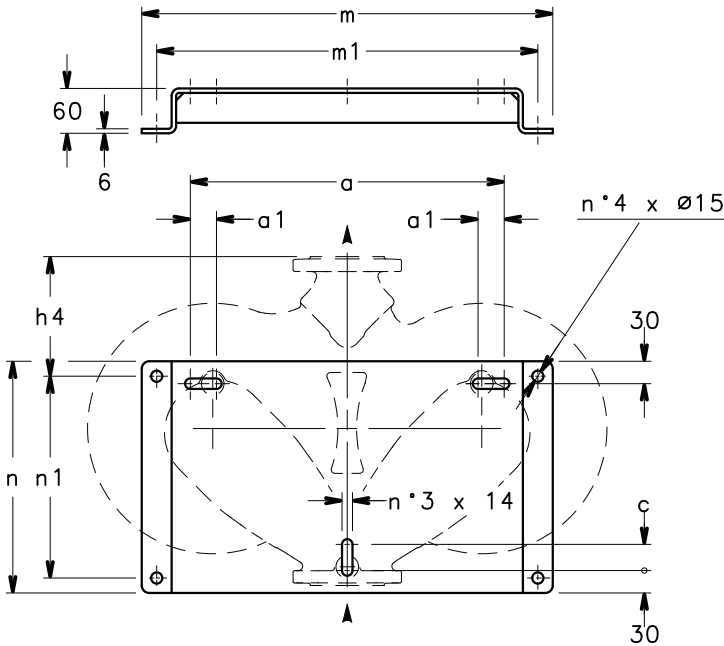
FLANGE KIT		
POMPA TIPO	CODE	ø D
LNTS 125-160	713740900	322
LNTS 125-200		
LNTS 125-250		
LNTS 150-200		
LNTS 150-250	713740910	401
LNTS 80-315		
LNTS 100-315		
LNTS 125-315		
LNTS 150-315		

LNTS-BLFL-en_b_td



LNTS-BLFL-EN_A_DD

**LNT (32 ÷ 100) SERIES
MOUNTING BASE KIT**

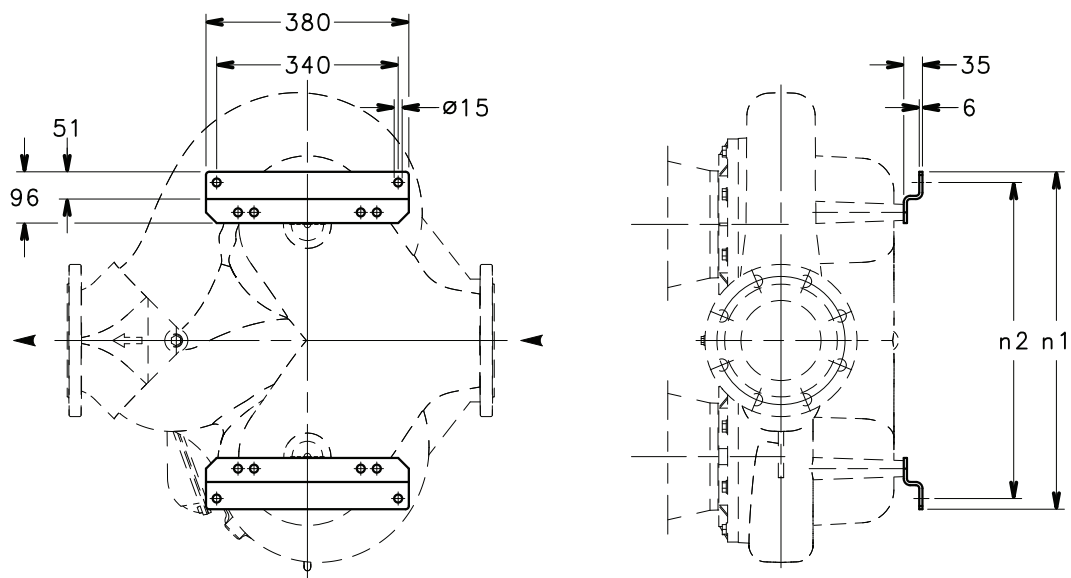


PUMP (LNT) SIZE	CODE KIT	DIMENSIONS (mm)							
		a	a1	c	h4	m	m1	n	n1
32-160	109398610	370	55	72	130	500	460	280	240
40-125 / 40-160		370	55	72	118	500	460	280	240
50-125 / 50-160		370	55	72	123	500	460	280	240
65-125 / 65-160		370	55	72	105	500	460	280	240
80-125 / 80-160	109398620	420	10	95	145	550	510	340	300
100-160		420	10	95	183	550	510	340	300
40-200 / 40-250		420	10	95	145	550	510	340	300
50-200 / 50-250		420	10	95	160	550	510	340	300
65-200 / 65-250		420	10	95	164	550	510	340	300
80-200 / 80-250		420	10	95	180	550	510	340	300
80-315		420	10	95	230	550	510	340	300
100-200 / 100-250		420	10	95	200	550	510	340	300
100-315		420	10	95	240	550	510	340	300
		420	10	95	240	550	510	340	300

LNT-piede-en_d_td

05260_B_DD

**LNT 125, 150 SERIES
MOUNTING BASE KIT**



PUMP TYPE	CODE KIT	DIMENSIONS (mm)	
		n1	n2
LNTS 125-160	743660210	572	532
LNTS 125-200		572	532
LNTS 125-250		652	612
LNTS 125-315		652	612
LNTS 150-200		672	632
LNTS 150-250		632	592
LNTS 150-315		672	632

LNTS125-150-base-en_b_td

LNTS125-150-BASE_A_DD

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 hydrostatic pressure test.

b) Audit Test Report

- Test report for electric pumps compiled in the test room, comprising flow-head-pump input-pump efficiency performance test (according to ISO 9906:2012).

c) NPSH Test Report

- Test report for electric pumps compiled in the test room, comprising flow-NPSH performance test (according to ISO 9906:2012).

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 2014/30/EU, 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:

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

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				

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

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

V = water speed (m/s)

G-at-pct-en_b_th

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	1×10^{-5}	$1,45 \times 10^{-4}$	$1,02 \times 10^{-4}$	0,0075
1 000,0000	1,0000	0,0100	0,1450	0,1020	7,5006
1×10^5	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

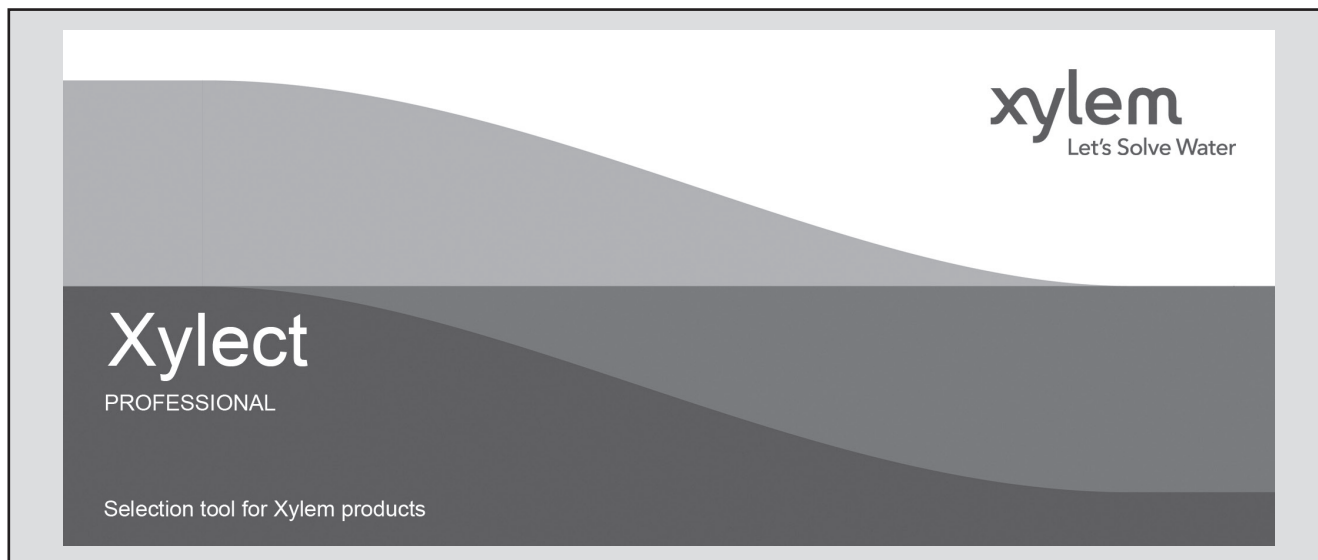
Cubic metre m ³	Litre L	Millilitre ml	Imperial gallon imp. gal.	U.S. gallon US gal.	Cubic foot ft ³
1,0000	1 000,0000	1×10^6	219,9694	264,1720	35,3147
0,0010	1,0000	1 000,0000	0,2200	0,2642	0,0353
1×10^{-6}	0,0010	1,0000	$2,2 \times 10^{-4}$	$2,642 \times 10^{-4}$	$3,53 \times 10^{-5}$
0,0045	4,5461	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.

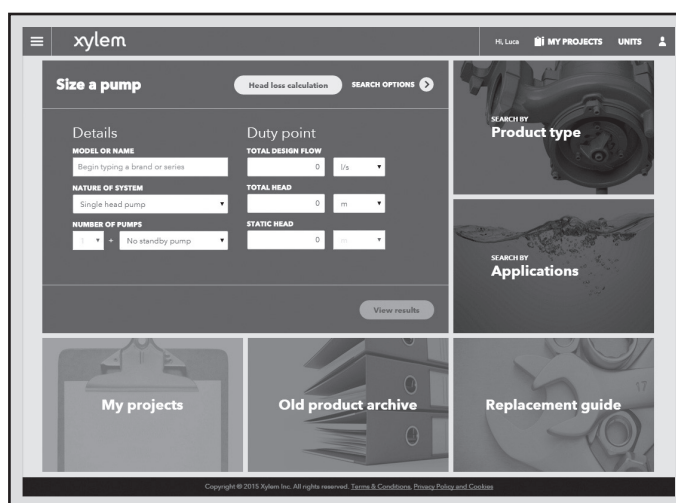
The possibility to search by applications and the detailed information output given makes it easy to make the optimal selection without having detailed knowledge about the Lowara products.

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



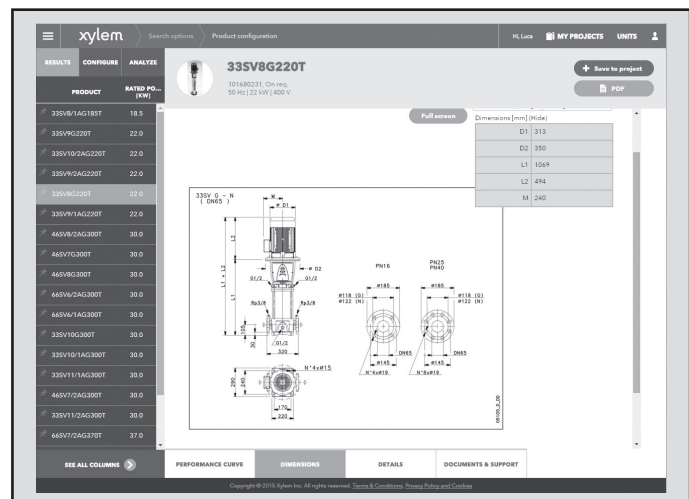
The detailed output makes it easy to select the optimal pump from the given alternatives.

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 registered user has a proper 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 advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. 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 with a strong focus on developing comprehensive, sustainable solutions.

For more information on how Xylem can help you, go to www.xylem.com.



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