

# e-LNT Series

TWIN IN-LINE ELECTRIC PUMPS

**ErP 2009/125/EC**

## Xylect

Xylect is a pump selection 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](http://www.xylect.com)



For more information, please, see page 179-180.

## Ecodesign Directive (ErP)

Over last decade the European Commission with the 'Energy Efficiency Plan' pushed the European Parliament and the Council to adopt specific measures to the purpose of reducing energy consumption and further negative environmental impacts.

Through the Directives 2005/32/EC, energy-using products (EuP), and 2009/125/EC, energy-related products (ErP) a framework for **ecodesign** requirements was established.

The Commission Regulations (EC) No 640/2009 and (EU) No 4/2014 have implemented two directives with regard to ecodesign requirements for **three-phase 50 Hz electric motors** placed on the market and put into service inside EU zone as self-alone units or integrated in other products.

This regulation states that motors must have **efficiency level IE3** (or IE2 + Variable Speed Drive) from **1<sup>st</sup> January 2015 for 7,5 to 375 kW** rated powers and from **1<sup>st</sup> January 2017 for 0,75 to 375 kW** ones.

The Commission Regulation (EU) No 547/2012 has implemented two directives with regard to ecodesign requirements for some types of **clean water pumps** placed on the market and put into service inside EU zone as self-alone units or integrated in other products.

This regulation states that water pumps shall have **index MEI 0.4** as minimum from **1<sup>st</sup> January 2015**. That index comes from a dedicated formula which considers hydraulic efficiency values at 'best efficiency point' (BEP), 75 % of the flow at BEP (Part load – PL) and 110 % of the flow at BEP (Over load – OL).

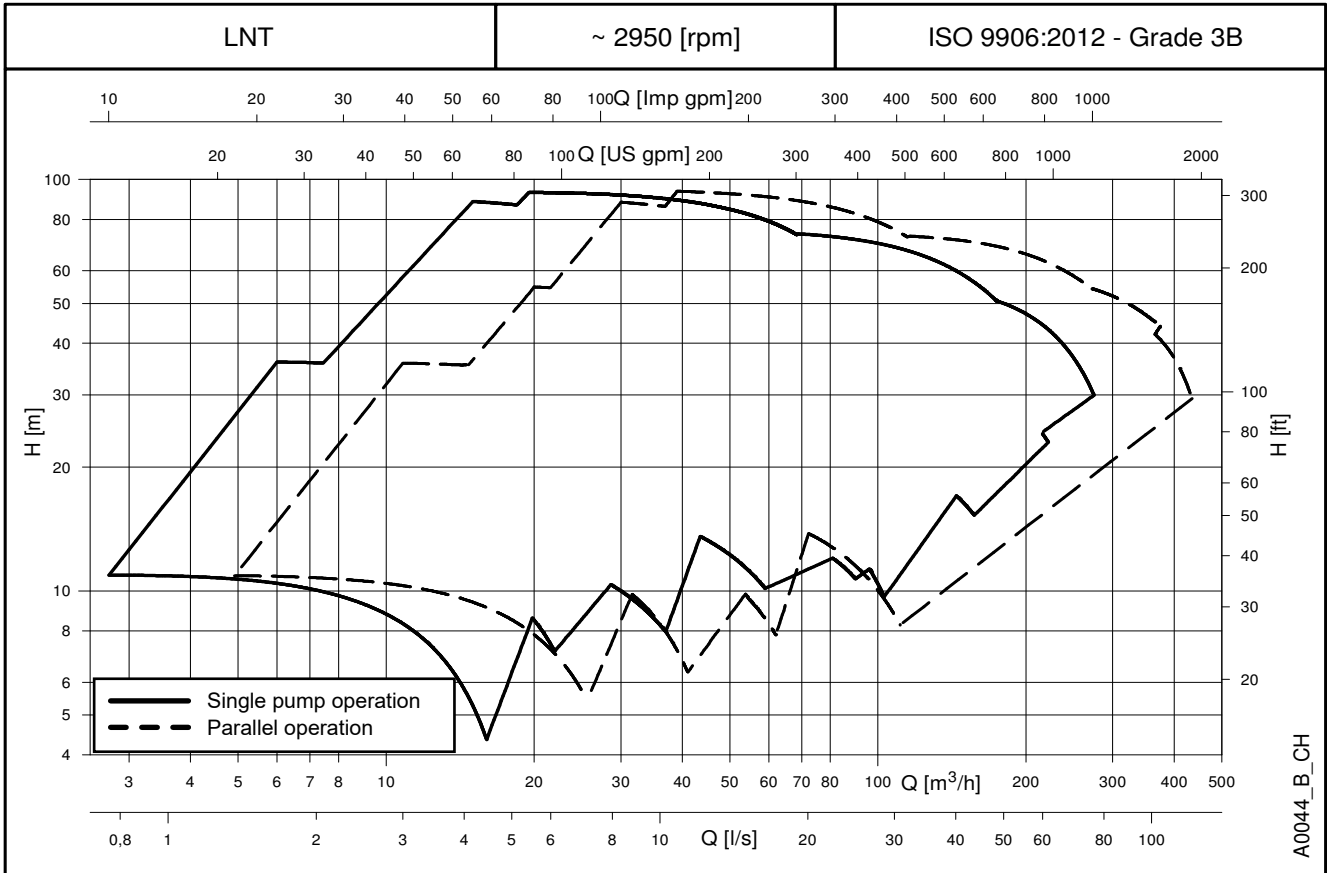
**The Lowara e-LNT series, for the models in the scope of the regulations above, is ErP compliant, having an index MEI equal or higher than 0,4 and IE3 motor efficiency.**

## CONTENTS

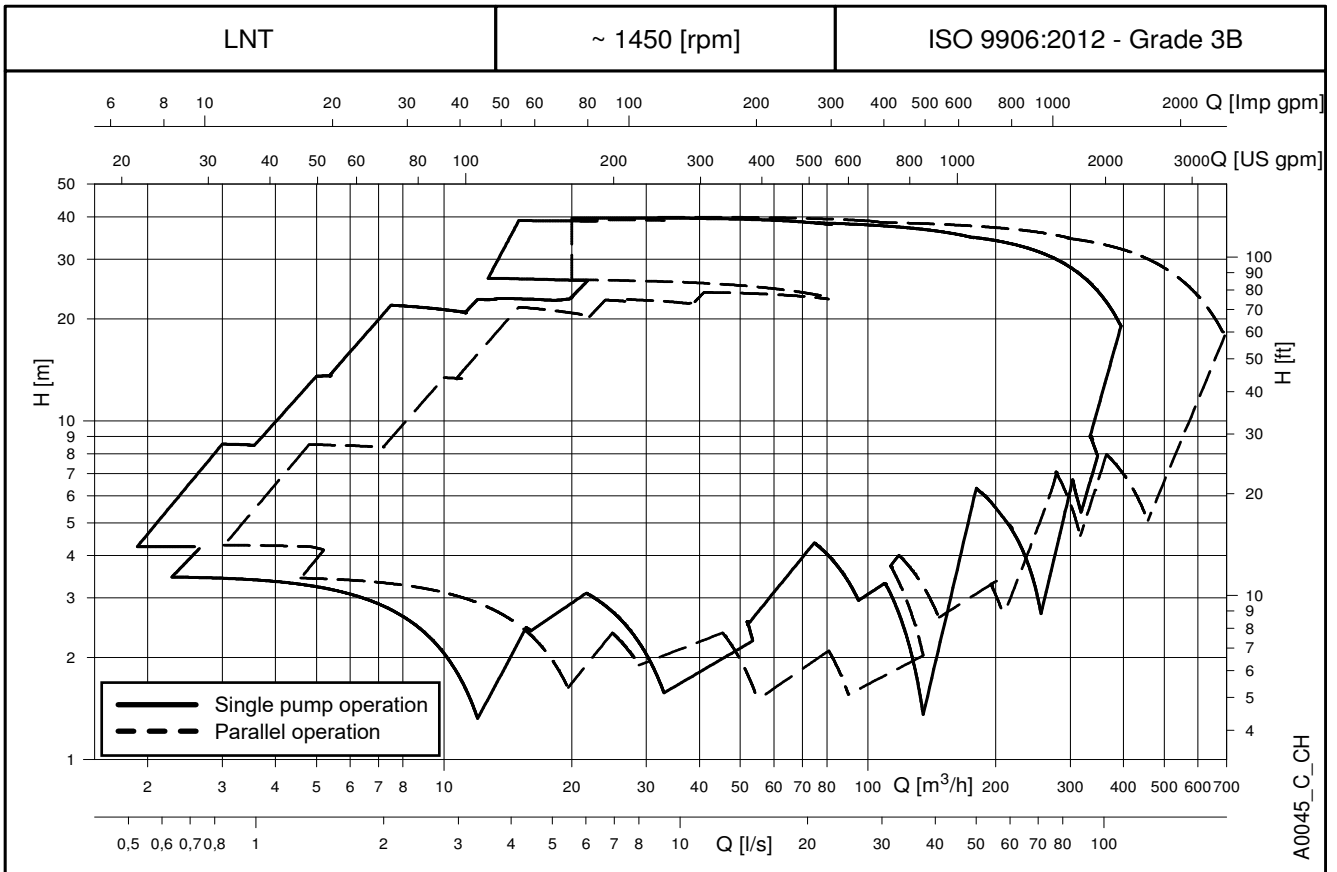
GENERAL INTRODUCTION .....	<b>5</b>
APPLICATIONS & BENEFITS .....	<b>6</b>
IDENTIFICATION CODE .....	<b>8</b>
RATING PLATE .....	<b>9</b>
LIST OF MODELS AT 50 Hz, 2 POLES .....	<b>10</b>
LIST OF MODELS AT 50 Hz, 4 POLES .....	<b>11</b>
ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS .....	<b>12</b>
MECHANICAL SEALS .....	<b>16</b>
MOTORS .....	<b>17</b>
PUMPS .....	<b>26</b>
MINIMUM EFFICIENCY INDEX (MEI) .....	<b>27</b>
HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 2 POLES .....	<b>28</b>
HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES .....	<b>29</b>
HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES .....	<b>34</b>
HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES .....	<b>35</b>
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES .....	<b>43</b>
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES .....	<b>63</b>
DIMENSIONS AND WEIGHTS .....	<b>93</b>
FORCES AND MOMENTS AT PUMP FLANGES .....	<b>108</b>
e-LNT..H: e-LNT WITH HYDROVAR .....	<b>113</b>
e-LNT..E: VERSION WITH DRIVE AND PERMANENT MAGNET MOTOR (e-SM Drive) .....	<b>139</b>
ACCESSORIES .....	<b>167</b>
REPORTS AND DECLARATIONS .....	<b>171</b>
TECHNICAL APPENDIX .....	<b>173</b>

**e-LNT SERIES**

**HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 2 POLES**



**HYDRAULIC PERFORMANCE RANGE AT 50 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 IE3 efficiency motors; and are available in the following constructions:

#### Extended shaft

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



#### Stub shaft

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



#### Hydraulic specifications

- Maximum delivery
  - (one pump running):
    - 275** m<sup>3</sup>/h (2-pole range)
    - 395** m<sup>3</sup>/h (4-pole range)
  - (two pump running):
    - 450** m<sup>3</sup>/h (2-pole range)
    - 694** m<sup>3</sup>/h (4-pole range)
- Maximum head: **95** m (2-pole range).  
**40** 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.
- **IE3** efficiency level (three-phase 0,75 to 375 kW).
- **155 (F)** insulation class.
- Standard voltage:
  - 1 x 220-240 V 50 Hz for power up to 2,2 kW
  - 3 x 220-240/380-415 V 50 Hz for power up to 3 kW.
  - 3 x 380-415/660-690 V 50 Hz for power above 3 kW.
- Maximum ambient temperature:
  - single-phase version: 40 °C
  - three-phase version: 50 °C
  - (40°C for 4 poles models up to 0,75 kW)

#### Note

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

#### List of the Directives

- Machinery Directive MD 2006/42/EC
- Electromagnetic Compatibility Directive EMCD 2004/108/EC
- Ecodesign requirements for energy-related products ErP 2009/125/EC Regulation (EC) No 640/2009, Regulation (EU) No 4/2014, Regulation (EU) No 547/2012

#### and the main technical norms

- EN 809, EN 60204-1 (safety)
- EN 1092-2 (cast iron flanges)
- EN 61000-6-1, EN 61000-6-3
- EN 60034-30:2009, IEC 60034-30-1:2014 (electric motors)

## **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.



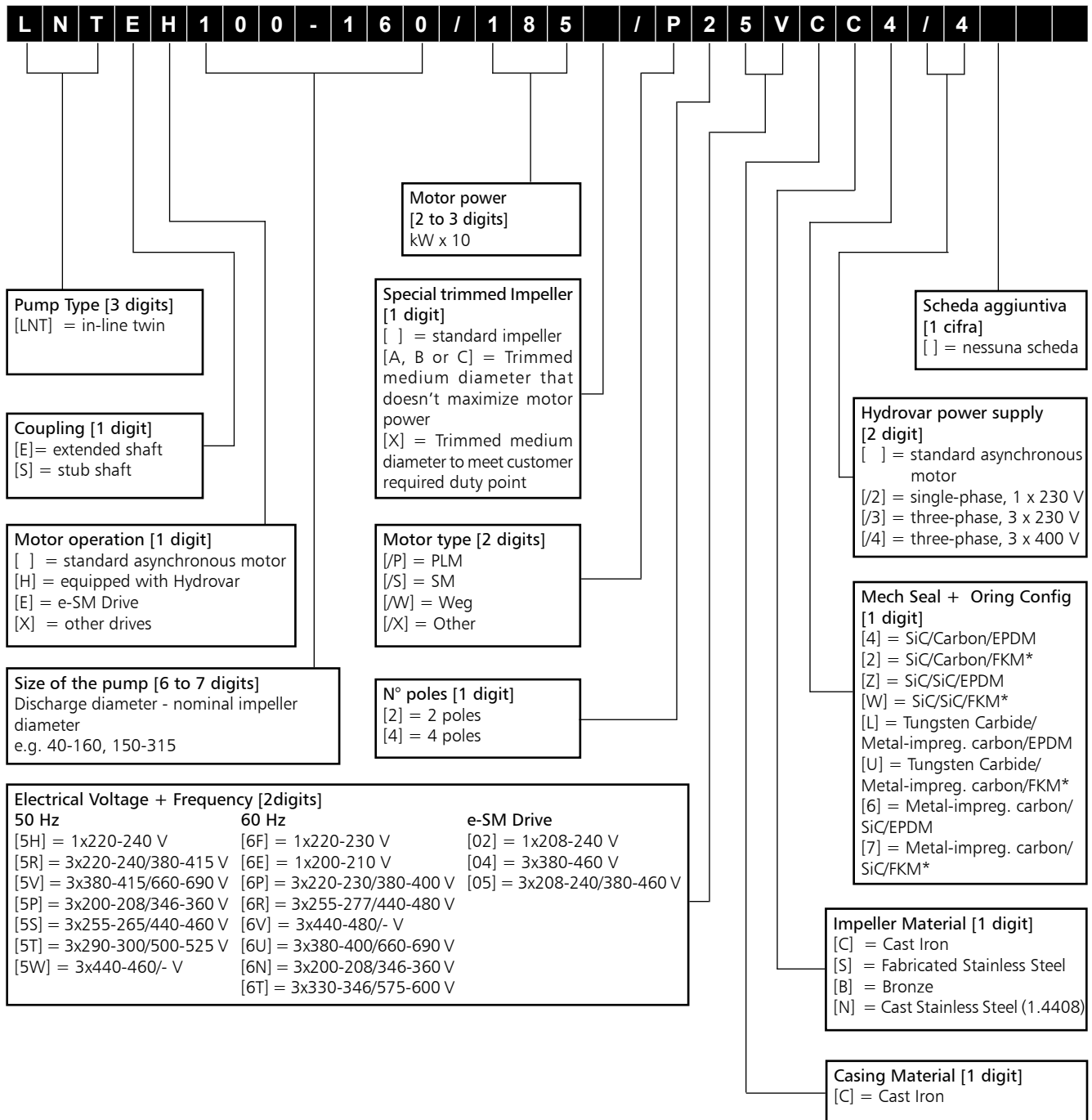
### **Benefits**

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

- **Performances:** the e-LNT pumps are ErP 2015 compliant, equipped with IE3 motors, and with hydraulic target points and coverage that satisfy the needs of CBS applications. The standard full cast iron version with PN16, 120 °C maximum fluid temperature, and EPDM elastomer is exactly what the CBS Market needs.
- **Reliability:** robust construction and high-quality standards in production, interchangeable mechanical seals and wear rings, guarantee a continuous operation without faults and a shorter down time for maintenance. 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, on DVD, or on Apps for mobile phones. 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 125-160/22/W45RCC4

In-line twin, electric pump stub shaft coupling, DN125 nominal discharge port, 160 mm nominal impeller diameter, 2,2 kW rated motor power, WEG IE3 model, 4 pole, 50 Hz 220-240/380-415 V, cast iron casing, cast iron impeller, Silicon Carbide/Carbon/EPDM mechanical seal.

#### LNTS 150-200/55/W45VCB4

In-line twin, electric pump stub shaft coupling, DN150 nominal discharge port, 200 mm nominal impeller diameter, 5,5kW rated motor power, WEG IE3 model, 4 pole, 50 Hz 380-415/660-690 V, cast iron casing, bronze impeller, Silicon Carbide/Carbon/EPDM mechanical seal.

## e-LNT SERIES RATING PLATE

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

### LEGEND

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

**e-LNT SERIES**  
**LIST OF MODELS AT 50 Hz, 2 POLES**

SIZE LNT..2	kW	VERSION	
		LNTE	LNTS
32-160/07A(*)	0,75	•	•
32-160/07(*)	0,75	•	•
32-160/11(*)	1,1	•	•
32-160/15(*)	1,5	•	•
32-160/22(*)	2,2	•	•
32-160/30	3	•	•
40-125/11(*)	1,1	•	•
40-125/15(*)	1,5	•	•
40-125/22(*)	2,2	•	•
40-125/30	3	•	•
40-160/22(*)	2,2	•	•
40-160/30	3	•	•
40-160/40	4	•	•
40-160/55	5,5	•	•
40-200/30	3	•	•
40-200/40	4	•	•
40-200/55	5,5	•	•
40-200/75	7,5	•	•
40-250/75	7,5	•	•
40-250/92	9,2	•	-
40-250/110A	11	-	•
40-250/110	11	•	•
40-250/150	15	•	•
50-125/15(*)	1,5	•	•
50-125/22(*)	2,2	•	•
50-125/30	3	•	•
50-125/40	4	•	•
50-160/30	3	•	•
50-160/40	4	•	•
50-160/55	5,5	•	•
50-160/75	7,5	•	•
50-200/55	5,5	•	•
50-200/75	7,5	•	•
50-200/92	9,2	•	-
50-200/110A	11	-	•
50-200/110	11	•	•
50-250/92	9,2	•	-
50-250/110A	11	-	•
50-250/110	11	•	•
50-250/150	15	•	•
50-250/185	18,5	•	•
50-250/220	22	•	•
65-125/30	3	•	•
65-125/40	4	•	•
65-125/55	5,5	•	•
65-125/75	7,5	•	•
65-160/55	5,5	•	•
65-160/75	7,5	•	•
65-160/92	9,2	•	-
65-160/110A	11	-	•
65-160/110	11	•	•

• = Available

LNT\_models-2p50-en\_c\_sc

SIZE LNT..2	kW	VERSION	
		LNTE	LNTS
65-200/92	9,2	•	-
65-200/110A	11	-	•
65-200/110	11	•	•
65-200/150	15	•	•
65-200/185	18,5	•	•
65-250/150	15	•	•
65-250/185	18,5	•	•
65-250/220	22	•	•
65-250/300	30	-	•
80-125/40	4	•	•
80-125/110	11	•	•
80-160/55	5,5	•	-
80-160/75	7,5	•	•
80-160/92	9,2	•	-
80-160/110A	11	-	•
80-160/110	11	•	•
80-160/150	15	•	•
80-160/185	18,5	•	•
80-200/110	11	-	•
80-200/150	15	-	•
80-200/185	18,5	-	•
80-200/220	22	-	•
80-200/300	30	-	•
80-250/220	22	-	•
80-250/300	30	-	•
80-250/370	37	-	•
100-160/110	11	•	•
100-160/150	15	•	•
100-160/185	18,5	•	•
100-160/220	22	•	•
100-200/220	22	-	•
100-200/300	30	-	•
100-200/370	37	-	•
100-250/370	37	-	•

(\*) 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 50 Hz, 4 POLES**

SIZE LNT..4	kW	VERSION	
		LNTE	LNTS
32-160/02A	0,25	•	-
32-160/02	0,25	•	-
32-160/03	0,37	•	-
40-125/02B	0,25	•	-
40-125/02A	0,25	•	-
40-125/02	0,25	•	-
40-125/03	0,37	•	-
40-160/02	0,25	•	-
40-160/03	0,37	•	-
40-160/05	0,55	•	•
40-160/07	0,75	•	•
40-200/05A	0,55	•	•
40-200/05	0,55	•	•
40-200/07	0,75	•	•
40-200/11	1,1	•	•
40-250/11	1,1	-	•
40-250/15B	1,5	•	-
40-250/15A	1,5	•	•
40-250/15	1,5	•	•
40-250/22	2,2	•	•
50-125/02A	0,25	•	-
50-125/02	0,25	•	-
50-125/03	0,37	•	-
50-125/05	0,55	•	•
50-160/03	0,37	•	-
50-160/05	0,55	•	•
50-160/07	0,75	•	•
50-160/11	1,1	•	•
50-200/07	0,75	•	•
50-200/11A	1,1	•	•
50-200/11	1,1	•	•
50-200/15	1,5	•	•
50-250/11	1,1	-	•
50-250/15A	1,5	•	-
50-250/15	1,5	•	•
50-250/22A	2,2	•	•
50-250/22	2,2	•	•
50-250/30	3	•	•
65-125/03	0,37	•	-
65-125/05	0,55	•	•
65-125/07	0,75	•	•
65-125/11	1,1	•	•
65-160/07	0,75	•	•
65-160/11A	1,1	•	•
65-160/11	1,1	•	•
65-160/15	1,5	•	•
65-200/11	1,1	-	•
65-200/15A	1,5	•	-
65-200/15	1,5	•	•
65-200/22A	2,2	•	•
65-200/22	2,2	•	•
65-250/22A	2,2	•	•
65-250/22	2,2	•	•
65-250/30	3	•	•
65-250/40	4	•	•
80-125/05	0,55	•	•
80-125/15	1,5	•	•

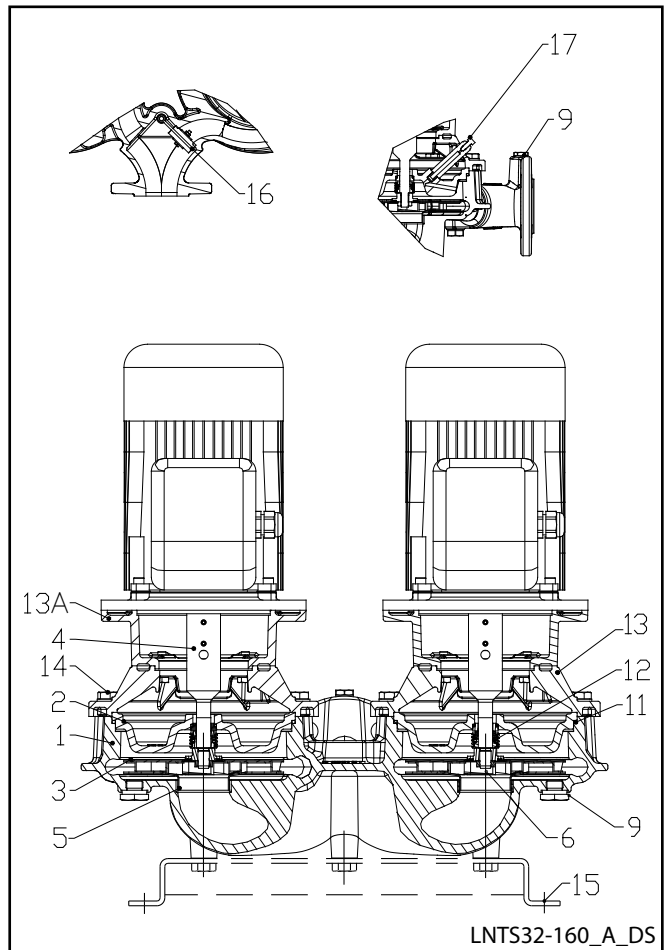
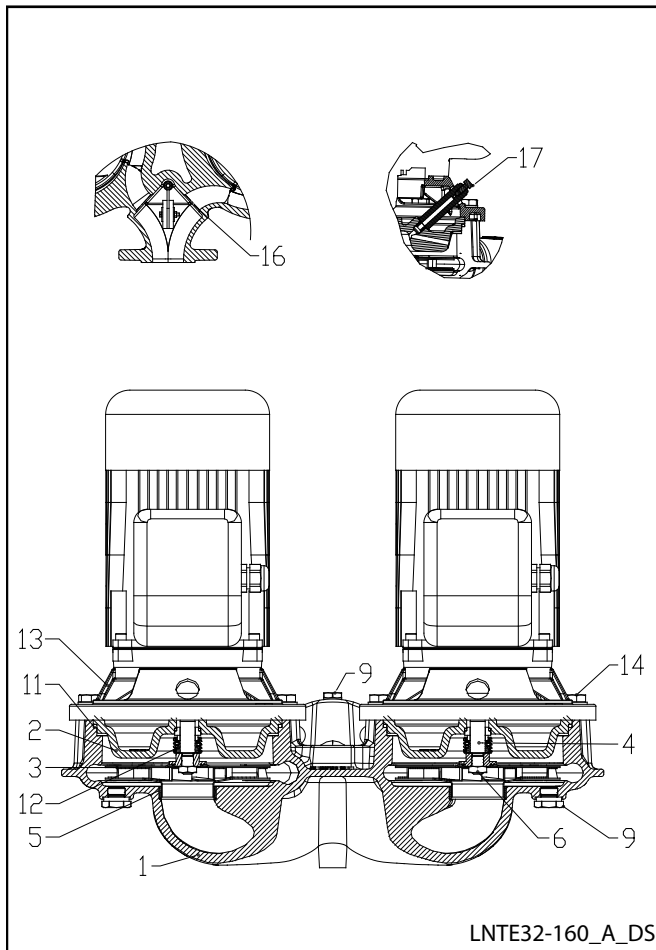
SIZE LNT..4	kW	VERSION	
		LNTE	LNTS
80-160/11B	1,1	-	•
80-160/15C	1,5	•	-
80-160/11A	1,1	-	•
80-160/15B	1,5	•	-
80-160/11	1,1	-	•
80-160/15A	1,5	•	-
80-160/15	1,5	•	•
80-160/22A	2,2	•	•
80-160/22	2,2	•	•
80-200/15	1,5	-	•
80-200/22A	2,2	-	•
80-200/22	2,2	-	•
80-200/30	3	-	•
80-200/40	4	-	•
80-250/30	3	-	•
80-250/40	4	-	•
80-250/55A	5,5	-	•
80-250/55	5,5	-	•
80-250/75	7,5	-	•
80-315/75	7,5	-	•
80-315/110	11	-	•
80-315/150	15	-	•
100-160/15	1,5	•	•
100-160/22A	2,2	•	•
100-160/22	2,2	•	•
100-160/30	3	•	•
100-200/30	3	-	•
100-200/40	4	-	•
100-200/55A	5,5	-	•
100-200/55	5,5	-	•
100-250/55A	5,5	-	•
100-250/55	5,5	-	•
100-250/75	7,5	-	•
100-250/110	11	-	•
100-315/110	11	-	•
100-315/150	15	-	•
100-315/185	18,5	-	•
100-315/220	22	-	•
125-160/22	2,2	-	•
125-160/30	3	-	•
125-160/40	4	-	•
125-200/55	5,5	-	•
125-200/75	7,5	-	•
125-250/75	7,5	-	•
125-250/110	11	-	•
125-315/150	15	-	•
125-315/185	18,5	-	•
125-315/220	22	-	•
125-315/300	30	-	•
150-200/55	5,5	-	•
150-200/75	7,5	-	•
150-200/110	11	-	•
150-250/110	11	-	•
150-250/150	15	-	•
150-315/185	18,5	-	•
150-315/220	22	-	•
150-315/300	30	-	•
150-315/370	37	-	•

• = Available

LNT\_models-4p50-en\_c\_sc

## LNT 32-160

### ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS



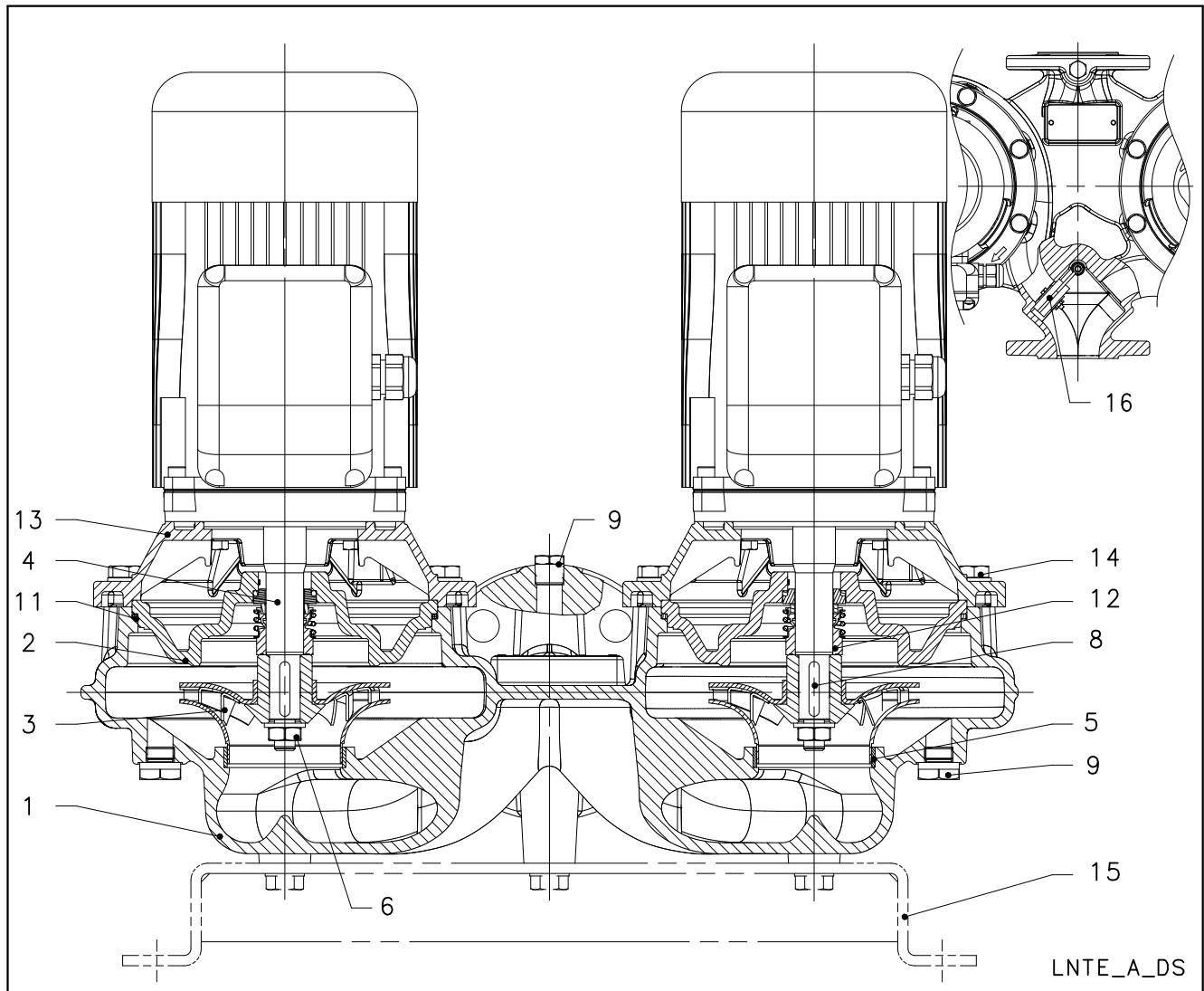
REF. N.	PART	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Volute casing	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
2	Casing cover	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
3	Impeller	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
4	Shaft extension (LNTE version)	Stainless 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

LNT32-160-en\_a\_tm



## LNTE SERIES

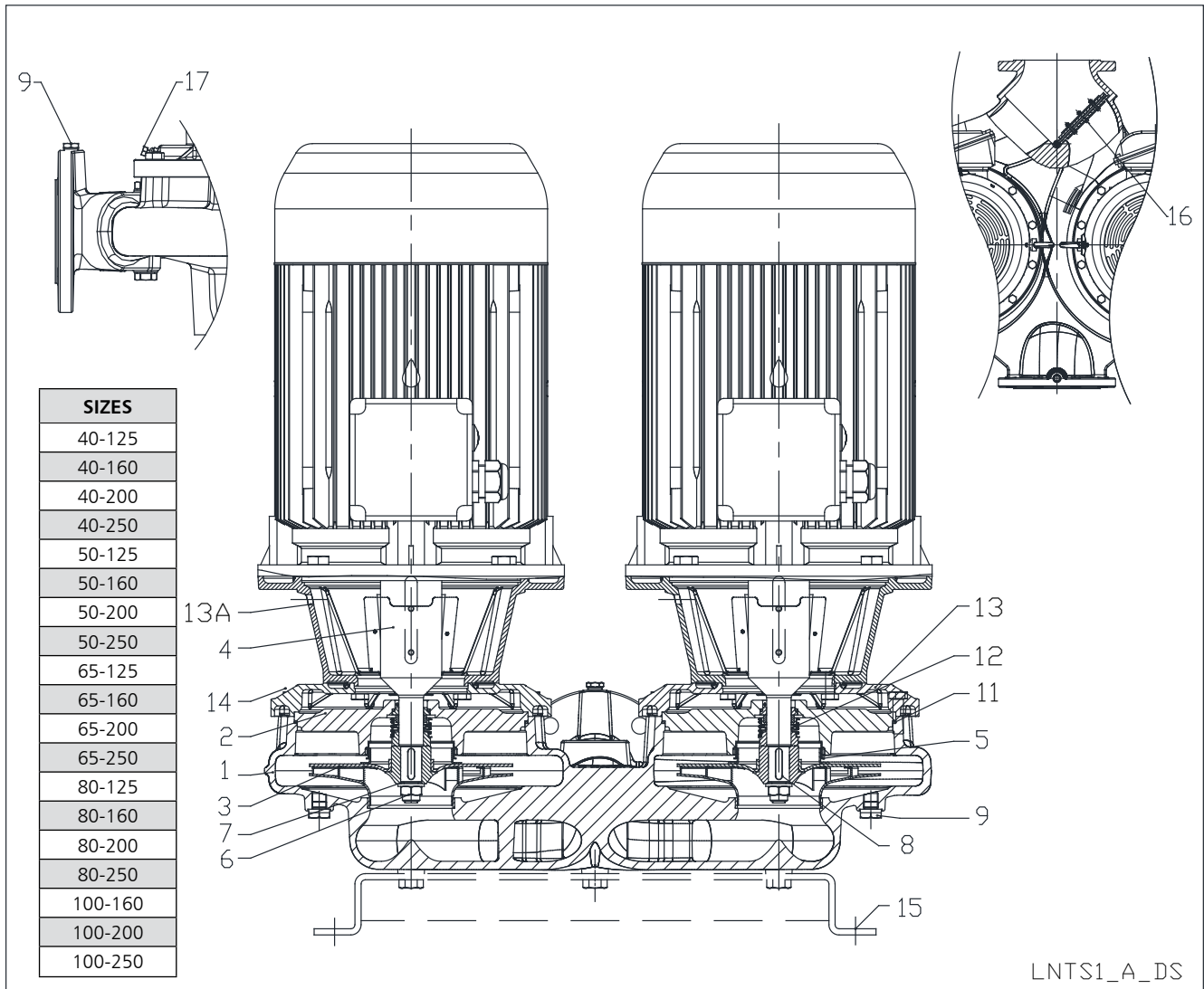
### ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS



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



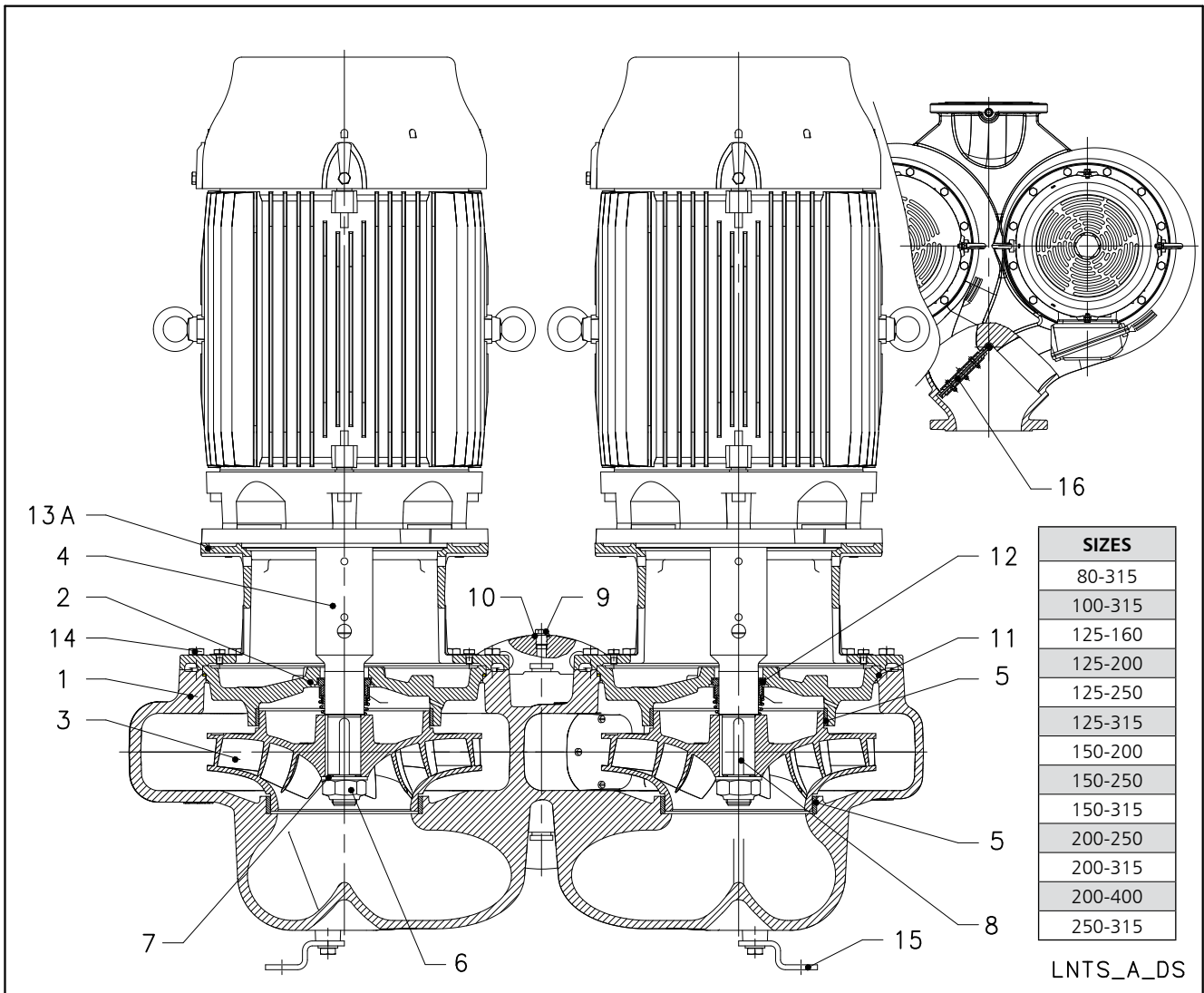
LNTS1\_A\_DS

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	Cast iron	EN 1561 - GJL-200 (JL1030)	ASTM Class 30
	Impeller	Bronze	EN 1982 - CuSn10-C (CC480K)	UNS C90700
	Impeller	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	EN 10025-2 - 1.0038	
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**

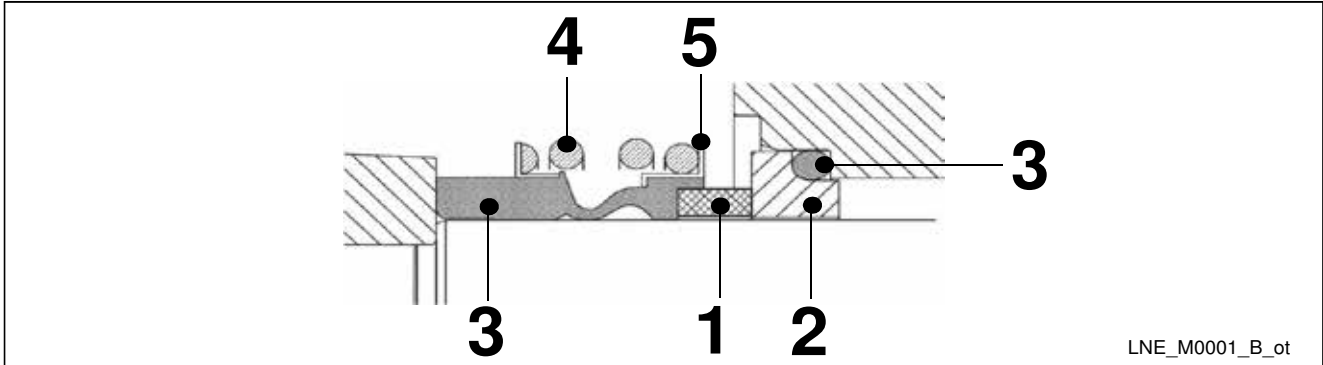


REF. N.	PART	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Volute casing	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
2	Casing cover	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
3	Impeller	Cast iron	EN 1561 - GJL-200 (JL1030)	ASTM Class 30
	Impeller	Bronze	EN 1982 - CuSn10-C (CC480K)	UNS C90700
	Impeller	Stainless steel	EN 10283-1-GX5CrNiMo19-11-2 (1.4408)	ASTM 316 A743 CF-8M
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	

### 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>B</b> : Resin impregnated carbon	<b>E</b> : EPDM	<b>G</b> : AISI 316
<b>A</b> : Antimony impregnated carbon	<b>V</b> : FKM (FPM)	
<b>Q<sub>7</sub></b> : Silicon carbide		
<b>U<sub>3</sub></b> : Tungsten carbide		

lne-Int\_ten-mec-en\_b\_tm

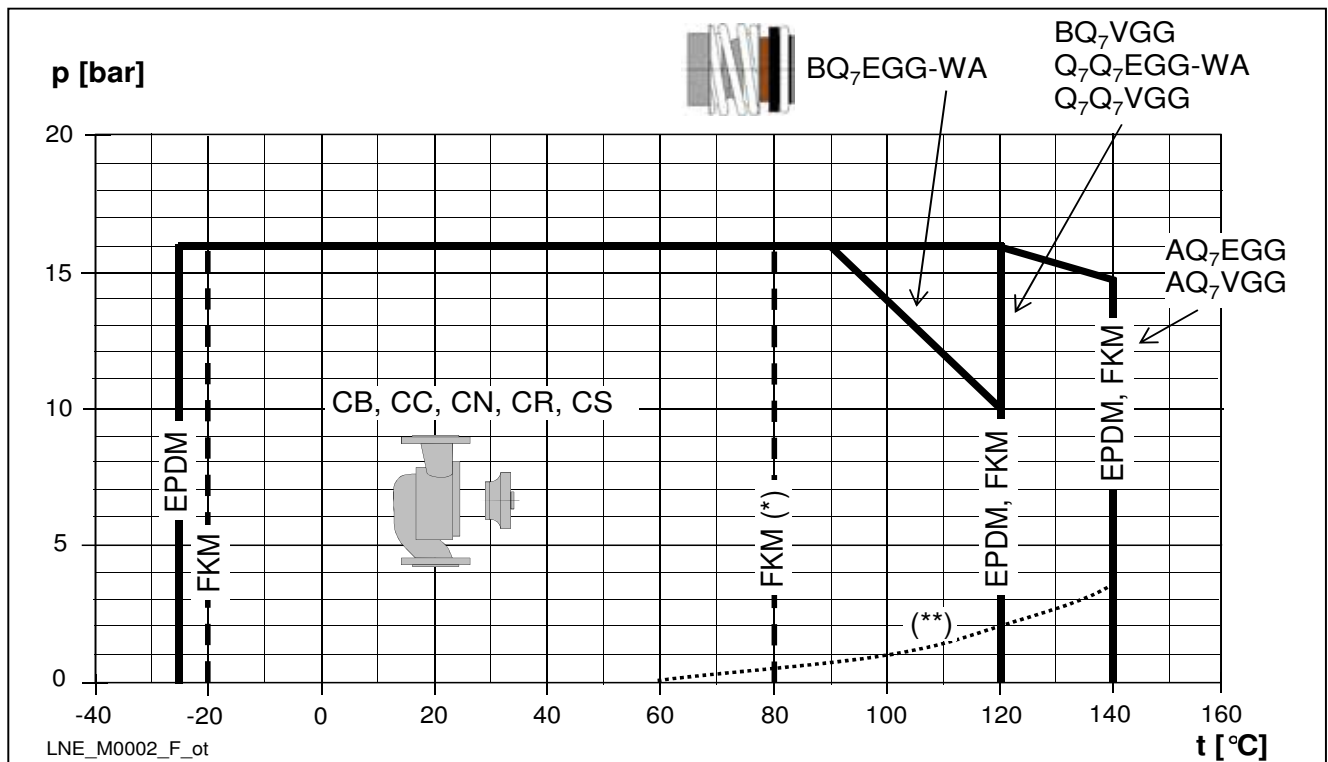
### TYPE OF SEAL

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

<sup>\*)</sup> for hot water: max. +80 °C

lne-Int\_tipi-ten-mec-en\_c\_tc

### PRESSURE/TEMPERATURE APPLICATION LIMITS FOR COMPLETE PUMP



LNE\_M0002\_F\_ot

<sup>\*)</sup> hot water <sup>(\*\*)</sup> minimum pressure required at mechanical seal (hot water; could be different in case of other liquids).

## e-LNT SERIES MOTORS

With the “Energy using Products” (EuP 2005/32/EC) and “Energy related Products” (ErP 2009/125/EC) directives, the European Commission has established requirements for promoting the use of products with low power consumption.

The various products considered include **three-phase 50 Hz surface motors with power outputs ranging from 0,75 to 375 kW**, also when integrated with other products, with characteristics as defined by the specific **Regulations (EC) No 640/2009** and **(EU) No 4/2014** implementing the requirements of the EuP and ErP Directives.

In accordance with regulations, the **three-phase 50 Hz surface motors with power outputs ranging from 0,75 to 375 kW** should have IE3 as minimum level of efficiency (or IE2 fitted with variable speed drive).

- Short-circuit squirrel-cage motor, enclosed construction with external ventilation (TEFC).
- Rated power from 0,75 to 37 kW for 2-pole range and from 0,25 to 37 kW for 4-pole range.
- **IP55** protection degree.
- Insulation class **155 (F)**.
- **Standard** three-phase surface motors  $\geq 0,75$  kW supplied as **IE3**.
- IE efficiency level according to EN 60034-30:2009 and IEC 60034-30-1:2014 ( $\geq 0,75$  kW).
- Electrical performances according to EN 60034-1.
- Metric cable gland according to EN 50262.
- **PTC included** as standard only for WEG motors (one per phase, 155°C).
- **Single-phase** version:
  - 220-240 V 50 Hz
  - Built-in automatic reset overload protection up to 1,5 kW. For higher powers the protection must be provided by the user.
  - Maximum ambient temperature: 40 °C.
- **Three-phase** version:
  - 220-240/380-415 V 50 Hz for power up to 3 kW.
  - 380-415/660-690 V 50 Hz for power above 3 kW.
  - Overload protection to be provided by the user.
  - Maximum ambient temperature:
    - 2 poli
      - 50 °C, for power up to 22 kW.
      - 40 °C, for power above 22 kW.
    - 4 poli
      - 40 °C, for power up to 0,75 kW.
      - 50 °C, for power up to 15 kW.
      - 40 °C, for power above 15 kW.

## LNTE SERIES SINGLE-PHASE MOTORS AT 50 Hz, 2 POLES

P <sub>N</sub> kW	MOTOR TYPE	IEC SIZE*	Construction Design	INPUT CURRENT I <sub>n</sub> (A) 220-240 V	CAPACITOR		DATA FOR 230 V 50 Hz VOLTAGE						
					μF	V	min <sup>-1</sup>	I <sub>s</sub> / I <sub>n</sub>	η %	cosφ	T <sub>n</sub> Nm	T <sub>s</sub> /T <sub>n</sub>	T <sub>m</sub> /T <sub>n</sub>
0,75	SM90RB14S2/1075	90R	B14	4,83-5,23	30	450	2875	5,28	71,8	0,92	2,49	0,70	2,59
1,1	SM90RB14S2/1115	90R	B14	6,88-6,65	30	450	2800	3,89	74,7	0,96	3,75	0,46	1,72
1,5	SM90RB14S2/1155	90R	B14	9,21-8,58	40	450	2810	4,00	76,1	0,98	5,15	0,39	1,74
2,2	PLM90B14S2/1225	90	B14	12,5-11,6	70	450	2825	4,47	82,4	0,97	7,43	0,53	1,87

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

LNEE-motm-2p50-en\_b\_te

## LNTE SERIES THREE-PHASE MOTORS AT 50 Hz, 2 POLES

P <sub>N</sub> kW	Efficiency $\eta_N$																		IE	Year of manufacture
	%																			
	$\Delta$ 220 V Y 380 V			$\Delta$ 230 V Y 400 V			$\Delta$ 240 V Y 415 V			$\Delta$ 380 V Y 660 V			$\Delta$ 400 V Y 690 V			$\Delta$ 415 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	4/4	3/4	2/4	4/4	3/4	2/4		
0,75	82,5	83,1	81,3	82,8	82,7	80,1	82,6	82,0	78,9	82,5	82,0	78,9	82,5	82,0	78,9	82,5	82,0	78,9		
1,1	84,0	84,7	83,4	84,4	84,5	82,5	84,3	84,0	81,4	84,0	84,0	81,4	84,0	84,0	81,4	84,0	84,0	81,4		
1,5	85,6	86,5	85,8	85,9	86,4	84,9	86,0	86,0	84,0	85,6	86,0	84,0	85,6	86,0	84,0	85,6	86,0	84,0		
2,2	86,5	87,4	86,8	86,4	86,9	85,7	86,6	86,7	85,0	86,4	86,7	85,0	86,4	86,7	85,0	86,4	86,7	85,0		
3	87,2	88,5	88,3	87,5	88,2	87,5	87,5	87,8	86,4	87,2	87,8	86,4	87,2	87,8	86,4	87,2	87,8	86,4		
4	89,1	90,1	89,2	89,1	90,1	89,2	89,1	90,1	89,2	89,1	90,3	90,4	89,6	90,4	89,9	89,6	90,1	89,2		
5,5	89,5	89,6	88,0	89,5	89,6	88,0	89,5	89,6	88,0	89,5	90,3	89,9	89,7	90,0	89,0	89,6	89,6	88,0		
7,5	90,6	90,5	89,0	90,6	90,5	89,0	90,6	90,5	89,0	90,6	91,0	90,2	90,8	90,8	89,6	90,7	90,5	89,0		
9,2	90,8	91,0	89,7	90,8	91,0	89,7	90,8	91,0	89,7	90,8	91,4	90,8	91,1	91,3	90,3	91,1	91,0	89,7		
11	91,3	92,0	91,1	91,3	92,0	91,1	91,3	92,0	91,1	91,3	92,2	92,2	91,6	92,2	91,7	91,7	92,0	91,1		
15	92,5	92,4	91,2	92,5	92,4	91,2	92,5	92,4	91,2	92,7	93,3	92,9	93,1	93,3	92,7	92,5	92,4	91,2		
18,5	92,6	93,1	92,4	92,6	93,1	92,4	92,6	93,1	92,4	92,6	93,2	93,0	92,9	93,3	92,8	92,9	93,1	92,4		
22	93,0	92,7	91,3	93,0	92,7	91,3	93,0	92,7	91,3	93,0	93,2	92,4	93,1	93,0	91,9	93,0	92,7	91,3		

P <sub>N</sub> kW	Manufacturer		IEC SIZE*	Construction Design	N. of Poles	f <sub>N</sub> Hz	Data for 400 V / 50 Hz Voltage				
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						cos $\phi$	I <sub>s</sub> / I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>s</sub> /T <sub>N</sub>	T <sub>m</sub> /T <sub>N</sub>
	Model										
0,75	SM90RB14S/307 PE	90R	SPECIALE	2	50	0,78	7,38	2,48	3,57	3,75	
1,1	SM90RB14S2/311 PE	90R				0,79	8,31	3,63	3,95	3,95	
1,5	SM90RB14S2/315 PE	90R				0,80	8,80	4,96	4,31	4,10	
2,2	PLM90B14S2/322 E3	90				0,80	8,77	7,28	3,72	3,70	
3	PLM90B14S2/330 E3	90				0,79	7,81	9,93	4,26	3,94	
	PLM90B5S2/330 E3										
4	PLM112RB14S2/340 E3	112R				0,85	9,13	13,2	3,82	4,32	
5,5	PLM112B14S2/355 E3	112				0,85	10,5	18,1	4,74	5,11	
7,5	PLM132B14S2/375 E3	132				0,85	10,2	24,4	3,43	4,76	
	PLM132B14S3/375 E3	132									
9,2	PLM132B14S2/392 E3	132				0,85	10,1	30,0	3,73	4,81	
	PLM132B14S3/392 E3	132									
11	PLM132B14S2/3110 E3	132				0,86	9,89	35,9	3,46	4,59	
	PLM132B14S3/3110 E3	132									
15	PLM160B14S3/3150 E3	160				0,88	9,51	48,6	2,73	4,32	
18,5	PLM160B14S3/3185 E3	160				0,88	9,81	59,9	2,81	4,53	
22	PLM160B14S3/3220 E3	160	0,85	10,9	71,1	3,26	5,12				

P <sub>N</sub> kW	Voltage U <sub>N</sub> V										n <sub>N</sub> min <sup>-1</sup>	Observe the regulations and codes locally in force regarding sorted waste disposal.	Operating conditions **			
	$\Delta$			Y			$\Delta$			Y			Altitude Above Sea Level (m)	T. amb min/max °C	ATEX	
	220 V	230 V	240 V	380 V	400 V	415 V	380 V	400 V	415 V	660 V						690 V
0,75	2,96	2,94	2,96	1,71	1,70	1,71	1,70	1,69	1,70	0,98	0,98	2875 ÷ 2895	≤ 1000	-15 / 50	No	
1,1	4,19	4,14	4,16	2,42	2,39	2,40	2,41	2,38	2,38	1,39	1,37	2870 ÷ 2900				
1,5	5,56	5,49	5,51	3,21	3,17	3,18	3,21	3,18	3,19	1,85	1,84	2870 ÷ 2895				
2,2	7,97	7,90	7,98	4,60	4,56	4,61	4,57	4,54	4,57	2,64	2,62	2880 ÷ 2900				
3	11,0	11,0	11,2	6,35	6,33	6,44	6,29	6,27	6,34	3,63	3,62	2865 ÷ 2895				
4	13,6	13,4	13,4	7,87	7,75	7,74	7,80	7,62	7,61	4,50	4,40	2885 ÷ 2910				
5,5	18,1	17,9	18,1	10,4	10,4	10,4	10,6	10,5	10,7	6,10	6,05	2880 ÷ 2910				
7,5	24,8	24,4	24,3	14,3	14,1	14,0	14,4	14,1	14,2	8,32	8,16	2920 ÷ 2935				
9,2	30,6	30,1	30,2	17,6	17,4	17,5	17,5	17,2	17,3	10,1	9,93	2920 ÷ 2935				
11	35,7	35,0	34,9	20,6	20,2	20,2	20,6	20,2	20,2	11,9	11,7	2910 ÷ 2930				
15	47,6	46,1	45,2	27,5	26,6	26,1	27,5	26,6	26,1	15,9	15,3	2940 ÷ 2950				
18,5	58,3	56,7	55,6	33,7	32,7	32,1	34,0	33,0	32,7	19,6	19,0	2940 ÷ 2950				
22	72,9	73,1	73,7	42,1	42,2	42,6	40,9	40,4	40,6	23,6	23,3	2950 ÷ 2960				

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

LNTE-IE3-mott-zp50-en\_c\_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 50 Hz, 2 POLES

P <sub>N</sub> kW	Efficiency $\eta_N$ %																		IE	Year of manufacture
	$\Delta$ 220 V Y 380 V			$\Delta$ 230 V Y 400 V			$\Delta$ 240 V Y 415 V			$\Delta$ 380 V Y 660 V			$\Delta$ 400 V Y 690 V			$\Delta$ 415 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	4/4	3/4	2/4	4/4	3/4	2/4		
0,75	82,5	83,1	81,3	82,8	82,7	80,1	82,6	82,0	78,9	82,5	82,0	78,9	82,5	82,0	78,9	82,5	82,0	78,9	3	Da 11/2014
1,1	84,0	84,7	83,4	84,4	84,5	82,5	84,3	84,0	81,4	84,0	84,0	81,4	84,0	84,0	81,4	84,0	84,0	81,4		
1,5	85,6	86,5	85,8	85,9	86,4	84,9	86,0	86,0	84,0	85,6	86,0	84,0	85,6	86,0	84,0	85,6	86,0	84,0		
2,2	86,5	87,4	86,8	86,4	86,9	85,7	86,6	86,7	85,0	86,4	86,7	85,0	86,4	86,7	85,0	86,4	86,7	85,0		
3	87,2	88,5	88,3	87,5	88,2	87,5	87,5	87,8	86,4	87,2	87,8	86,4	87,2	87,8	86,4	87,2	87,8	86,4		
4	89,1	90,1	89,2	89,1	90,1	89,2	89,1	90,1	89,2	89,1	90,3	90,4	89,6	90,4	89,9	89,6	90,1	89,2		
5,5	89,5	89,6	88,0	89,5	89,6	88,0	89,5	89,6	88,0	89,5	90,3	89,9	89,7	90,0	89,0	89,6	89,6	88,0		
7,5	90,6	90,5	89,0	90,6	90,5	89,0	90,6	90,5	89,0	90,6	91,0	90,2	90,8	90,8	89,6	90,7	90,5	89,0		
11	91,3	92,0	91,1	91,3	92,0	91,1	91,3	92,0	91,1	91,3	92,2	92,2	91,6	92,2	91,7	91,7	92,0	91,1		
15	92,5	92,4	91,2	92,5	92,4	91,2	92,5	92,4	91,2	92,7	93,3	92,9	93,1	93,3	92,7	92,5	92,4	91,2		
18,5	92,6	93,1	92,4	92,6	93,1	92,4	92,6	93,1	92,4	92,6	93,2	93,0	92,9	93,3	92,8	92,9	93,1	92,4		
22	93,0	92,7	91,3	93,0	92,7	91,3	93,0	92,7	91,3	93,0	93,2	92,4	93,1	93,0	91,9	93,0	92,7	91,3		

P <sub>N</sub> kW	Manufacturer		IEC SIZE*	Construction Design	N. of Poles	f <sub>N</sub> Hz	Data for 400 V / 50 Hz Voltage				
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						cos $\phi$	I <sub>s</sub> / I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>s</sub> /T <sub>N</sub>	T <sub>m</sub> /T <sub>N</sub>
	Model										
0,75	SM80B5/307 PE		80	B5	2	50	0,78	7,38	2,48	3,57	3,75
1,1	SM80B5/311 PE		80				0,79	8,31	3,63	3,95	3,95
1,5	SM90RB5/315 PE		90R				0,80	8,80	4,96	4,31	4,10
2,2	PLM90B5/322 E3		90				0,80	8,77	7,28	3,72	3,70
3	PLM100RB5/330 E3		100R				0,79	7,81	9,93	4,26	3,94
4	PLM112RB5/340 E3		112R				0,85	9,13	13,2	3,82	4,32
5,5	PLM132RB5/355 E3		132R				0,85	10,5	18,1	4,74	5,11
7,5	PLM132B5/375 E3		132				0,85	10,2	24,4	3,43	4,76
11	PLM160RB5/3110 E3		160R				0,86	9,89	35,9	3,46	4,59
15	PLM160B5/3150 E3		160				0,88	9,51	48,6	2,73	4,32
18,5	PLM160B5/3185 E3		160				0,88	9,81	59,9	2,81	4,53
22	PLM180RB5/3220 E3		180R				0,85	10,9	71,1	3,26	5,12

P <sub>N</sub> kW	Voltage U <sub>N</sub> V										n <sub>N</sub> min <sup>-1</sup>	Observe the regulations and codes locally in force regarding sorted waste disposal.	Operating conditions **			
	$\Delta$			Y			$\Delta$			Y			Altitude Above Sea Level (m)	T. amb min/max °C	ATEX	
	220 V	230 V	240 V	380 V	400 V	415 V	380 V	400 V	415 V	660 V						690 V
	I <sub>N</sub> (A)															
0,75	2,96	2,94	2,96	1,71	1,70	1,71	1,70	1,69	1,70	0,98	0,98	2875 ÷ 2895	≤ 1000	-15 / 50	No	
1,1	4,19	4,14	4,16	2,42	2,39	2,4	2,41	2,38	2,38	1,39	1,37	2870 ÷ 2900				
1,5	5,56	5,49	5,51	3,21	3,17	3,18	3,21	3,18	3,19	1,85	1,84	2870 ÷ 2895				
2,2	8,0	7,9	8,0	4,6	4,56	4,61	4,57	4,54	4,57	2,64	2,62	2880 ÷ 2900				
3	11,0	11	11,2	6,35	6,33	6,44	6,29	6,27	6,34	3,63	3,62	2865 ÷ 2895				
4	13,6	13,4	13,4	7,9	7,8	7,7	7,8	7,6	7,6	4,50	4,40	2885 ÷ 2910				
5,5	18,1	17,9	18,1	10,4	10,4	10,4	10,6	10,5	10,7	6,10	6,05	2880 ÷ 2910				
7,5	24,8	24,4	24,3	14,3	14,1	14,0	14,4	14,1	14,2	8,3	8,2	2920 ÷ 2935				
11	35,7	35	34,9	20,6	20,2	20,2	20,6	20,2	20,2	11,9	11,7	2910 ÷ 2930				
15	47,6	46,1	45,2	27,5	26,6	26,1	27,5	26,6	26,1	15,9	15,3	2940 ÷ 2950				
18,5	58,3	56,7	55,6	33,7	32,7	32,1	34,0	33,0	32,7	19,6	19,0	2940 ÷ 2950				
22	72,9	73,1	73,7	42,1	42,2	42,6	40,9	40,4	40,6	23,6	23,3	2950 ÷ 2960				

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

LNES-IE3-mott-2p50-en\_c\_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 50 Hz, 2 POLES (from 30 to 37 kW)**

P <sub>N</sub> kW	Efficiency $\eta_N$ %									IE	Year of manufacture
	$\Delta$ 380 V Y 660 V			$\Delta$ 400 V Y 690 V			$\Delta$ 415 V				
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4		
30	94,0	94,0	93,1	94,1	94,0	92,8	94,2	93,9	92,6	3	from 11/2014
37	94,4	94,0	93,5	94,6	94,0	93,3	94,7	93,9	93,1		

P <sub>N</sub> kW	Manufacturer		IEC SIZE	Construction Design	N. of Poles	f <sub>N</sub> Hz	Data for 400 V / 50 Hz Voltage				
	WEG Equipamentos Eletricos S.A. Reg. No. 07.175.725/0010-50 Jaragua do Sul - SC (Brazil)						cos $\phi$	Is / I <sub>N</sub>	T <sub>N</sub> Nm	Ts/T <sub>N</sub>	Tm/T <sub>N</sub>
	Model										
30	W22 200L2-B5 30kW E3		200	B5	2	50	0,86	7,30	96,60	2,60	2,90
37	W22 200L2-B5 37kW E3		200				0,86	7,30	119,2	2,60	2,90

P <sub>N</sub> kW	Voltage U <sub>N</sub> V					n <sub>N</sub> min <sup>-1</sup>	See note.	Operating conditions **		
	$\Delta$			Y				Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
	380 V	400 V	415 V	660 V	690 V					
	I <sub>N</sub> (A)									
30	55,1	53,5	52,7	31,7	31,0	2960 ÷ 2970	≤ 1000	-15 / +40	No	
37	67,7	65,6	64,7	39,0	38,0	2960 ÷ 2970				

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

LNES-IE3-mott37-2p50-en\_a\_te

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



## LNTE SERIES THREE-PHASE MOTORS AT 50 Hz, 4 POLES

P <sub>N</sub> kW	Efficiency $\eta_N$ %																		Year of manufacture		
	$\Delta$ 220 V Y 380 V			$\Delta$ 230 V Y 400 V			$\Delta$ 240 V Y 415 V			$\Delta$ 380 V Y 660 V			$\Delta$ 400 V Y 690 V			$\Delta$ 415 V				IE	
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4			
0,25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	06/11
0,37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
0,55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
0,75	83,0	84,3	83,5	83,4	84,1	82,6	83,8	84,0	81,9	83,0	84,3	83,5	83,4	84,1	82,6	83,8	84,0	81,9	-	-	01/17
1,1	84,9	85,7	84,7	85,3	85,5	83,8	85,3	85,0	82,7	84,9	85,0	82,7	84,9	85,0	82,7	84,9	85,0	82,7	-	-	
1,5	86,6	87,0	85,7	86,7	86,9	84,5	86,4	85,9	83,3	86,4	85,9	83,3	86,4	85,9	83,3	86,4	85,9	83,3	-	-	
2,2	87,6	88,6	88,3	88,2	88,8	87,9	88,5	88,7	87,4	87,6	88,6	87,4	87,6	88,6	87,4	87,6	88,6	87,4	-	-	
3	88,5	89,2	88,5	88,6	88,9	87,6	88,6	88,6	86,8	88,5	88,6	86,8	88,5	88,6	86,8	88,5	88,6	86,8	-	-	
4	88,6	89,1	87,9	88,6	89,1	87,9	88,6	89,1	87,9	88,6	89,2	88,9	88,6	89,2	88,4	88,8	89,1	87,9	-	-	
																			-	-	

P <sub>N</sub> kW	Manufacturer		IEC SIZE*	Construction Design	N. of Poles	f <sub>N</sub> Hz	Data for 400 V / 50 Hz Voltage				
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						cos $\phi$	I <sub>s</sub> / I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>s</sub> /T <sub>N</sub>	T <sub>m</sub> /T <sub>N</sub>
	Model										
0,25	SM471B5/302		71	B5          SPECIAL	4	50	0,59	3,58	1,71	3,16	2,63
0,37	SM471B5/304		71				0,60	3,39	2,57	3,40	2,47
0,55	SM490RB14S2/305		90R				0,67	3,95	3,77	2,45	2,38
	SM490RB5S2/305		90R				0,67	3,95	3,77	2,45	2,38
0,75	LLM490RB14S2/307		90R				0,8	6,38	5	2,73	3,13
	LLM490RB5S2/307		90R				0,71	6,22	7,28	2,75	3,44
1,1	PLM490B5S2/311 E3		90				0,68	6,92	9,89	3,29	4,01
1,5	PLM490B5S3/315 E3		90				0,78	7,47	14,5	2,38	3,69
2,2	PLM4100B5S3/322 E3		100				0,74	7,75	19,7	2,48	4,21
3	PLM4100B5S3/330 E3		100				0,79	8,32	26,3	3,19	4,02
4	PLM4112B5S3/340 E3		112								

P <sub>N</sub> kW	Voltage U <sub>N</sub> V										n <sub>N</sub> min <sup>-1</sup>	Operating conditions **				
	$\Delta$			Y			$\Delta$			Y		Altitude Above Sea Level (m)	T. amb min/max °C	ATEX		
	220 V	230 V	240 V	380 V	400 V	415 V	380 V	400 V	415 V	660 V					690 V	
	I <sub>N</sub> (A)											Observe the regulations and codes locally in force regarding sorted waste disposal.	≤ 1000	-15 / 40          -15 / 50	No	
0,25	1,68	1,71	1,77	0,97	0,99	1,02	-	-	-	-	-					1375 ÷ 1400
0,37	2,46	2,53	2,62	1,42	1,46	1,51	-	-	-	-	-					1355 ÷ 1380
0,55	2,98	3,03	3,1	1,72	1,75	1,79	-	-	-	-	-					1380 ÷ 1400
0,75	2,90	2,85	2,85	1,7	1,65	1,65	1,70	1,65	1,65	0,98	0,95					1420 ÷ 1435
1,1	4,61	4,59	4,62	2,66	2,65	2,67	2,64	2,63	2,65	1,53	1,52					1435 ÷ 1445
1,5	6,34	6,41	6,41	3,66	3,70	3,70	3,65	3,68	3,69	2,11	2,13					1440 ÷ 1450
2,2	8,19	8,04	7,97	4,73	4,64	4,60	4,70	4,62	4,56	2,71	2,67					1445 ÷ 1455
3	11,5	11,5	11,5	6,66	6,62	6,67	6,63	6,59	6,63	3,83	3,81					1450 ÷ 1460
4	14,8	14,6	14,5	8,52	8,40	8,36	8,40	8,23	8,19	4,85	4,75					1445 ÷ 1455

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

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

## LNTS SERIES THREE-PHASE MOTORS AT 50 Hz, 4 POLES

P <sub>N</sub> kW	Efficiency $\eta_N$																		IE	Year of manufacture
	%																			
	$\Delta$ 220 V Y 380 V			$\Delta$ 230 V Y 400 V			$\Delta$ 240 V Y 415 V			$\Delta$ 380 V Y 660 V			$\Delta$ 400 V Y 690 V			$\Delta$ 415 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	4/4	3/4	2/4	4/4	3/4	2/4			
0,55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2011
0,75	83	84,3	83,5	83,4	84,1	82,6	83,8	84	81,9	83	84,3	83,5	83,4	84,1	82,6	83,8	84	81,9		01/17
1,1	84,9	85,7	84,7	85,3	85,5	83,8	85,3	85	82,7	84,9	85	82,7	84,9	85	82,7	84,9	85	82,7		
1,5	86,6	87	85,7	86,7	86,9	84,5	86,4	85,9	83,3	86,4	85,9	83,3	86,4	85,9	83,3	86,4	85,9	83,3		
2,2	87,6	88,6	88,3	88,2	88,8	87,9	88,5	88,7	87,4	87,6	88,6	87,4	87,6	88,6	87,4	87,6	88,6	87,4		
3	88,5	89,2	88,5	88,6	88,9	87,6	88,6	88,6	86,8	88,5	88,6	86,8	88,5	88,6	86,8	88,5	88,6	86,8		
4	88,6	89,1	87,9	88,6	89,1	87,9	88,6	89,1	87,9	88,6	89,2	88,9	88,6	89,2	88,4	88,8	89,1	87,9	3	11/14
5,5	90,4	90,9	89,7	90,4	90,9	89,7	90,4	90,9	89,7	90,4	91,0	90,5	90,9	91,1	90,2	90,9	90,9	89,7		
7,5	90,4	91,2	90,4	90,4	91,2	90,4	90,4	91,2	90,4	90,4	91,2	91,1	90,7	91,3	90,8	90,9	91,2	90,4		
11	91,5	92,2	91,4	91,5	92,2	91,4	91,5	92,2	91,4	91,5	92,4	92,4	91,9	92,5	92	91,9	92,2	91,4		
15	92,2	92,2	90,8	92,2	92,2	90,8	92,2	92,2	90,8	92,5	93,0	92,7	92,5	92,7	91,8	92,2	92,2	90,8		

P <sub>N</sub> kW	Manufacturer		IEC SIZE	Construction Design	N. of Poles	f <sub>N</sub> Hz	Data for 400 V / 50 Hz Voltage				
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						cos $\phi$	I <sub>s</sub> / I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>s</sub> /T <sub>N</sub>	T <sub>m</sub> /T <sub>N</sub>
	Model										
0,55	SM480B5/305		80	B5	4	50	0,67	3,95	3,77	2,45	2,38
0,75	LLM480B5/307		80				0,80	6,38	5,00	2,73	3,31
1,1	PLM490B5/311 E3		90				0,71	6,22	7,28	2,75	3,44
1,5	PLM490B5/315 E3		90				0,68	6,92	9,89	3,29	4,01
2,2	PLM4100B5/322 E3		100				0,78	7,47	14,5	2,38	3,69
3	PLM4100B5/330 E3		100				0,74	7,75	19,7	2,48	4,21
4	PLM4112B5/340 E3		112				0,79	8,32	26,3	3,19	4,02
5,5	PLM4132B5/355 E3		132				0,76	7,64	35,9	2,85	3,65
7,5	PLM4132B5/375 E3		132				0,79	7,70	49,1	2,69	3,57
11	PLM4160B5/3110 E3		160				0,81	7,19	71,5	2,45	3,26
15	PLM4160B5/3150 E3		160				0,77	8,23	97,2	2,97	3,99

P <sub>N</sub> kW	Voltage U <sub>N</sub> V										n <sub>N</sub> min <sup>-1</sup>	Observe the regulations and codes locally in force regarding sorted waste disposal.	Operating conditions **			
	$\Delta$			Y			$\Delta$			Y			Altitude Above Sea Level (m)	T. amb min/max °C	ATEX	
	220 V	230 V	240 V	380 V	400 V	415 V	380 V	400 V	415 V	660 V						690 V
0,55	2,98	3,03	3,1	1,72	1,75	1,79	-	-	-	-	-	1380 ÷ 1400	≤ 1000	-15 / +40	No	
0,75	2,90	2,85	2,85	1,70	1,65	1,65	1,70	1,65	1,65	0,98	0,95	1420 ÷ 1435				
1,1	4,61	4,59	4,62	2,66	2,65	2,67	2,64	2,63	2,65	1,53	1,52	1435 ÷ 1445				
1,5	6,34	6,41	6,41	3,66	3,7	3,7	3,65	3,68	3,69	2,11	2,13	1440 ÷ 1450				
2,2	8,19	8,04	7,97	4,73	4,64	4,6	4,70	4,62	4,56	2,71	2,67	1445 ÷ 1455				
3	11,5	11,5	11,5	6,66	6,62	6,67	6,63	6,59	6,63	3,83	3,81	1450 ÷ 1460				
4	14,8	14,6	14,5	8,52	8,40	8,36	8,40	8,23	8,19	4,85	4,75	1445 ÷ 1455				
5,5	20,0	19,7	19,4	11,6	11,4	11,2	11,7	11,5	11,4	6,75	6,62	1455 ÷ 1465				
7,5	26,6	26,1	25,8	15,4	15,1	14,9	15,5	15,2	15,1	8,95	8,75	1450 ÷ 1460				
11	38,3	37,3	37,5	22,1	21,8	21,7	21,9	21,4	21,3	12,6	12,3	1465 ÷ 1470				
15	51,8	52,0	52,7	29,9	30,0	30,4	30,5	30,7	31,4	17,6	17,7	1465 ÷ 1475				

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

LNES-IE3-mott15-4p50-en\_c\_te

**LNTS SERIES**
**THREE-PHASE MOTORS AT 50 Hz, 4 POLES (from 18,5 to 37 kW)**

P <sub>N</sub> kW	Efficiency $\eta_N$ %									IE	Year of manufacture
	$\Delta$ 380 V Y 660 V			$\Delta$ 400 V Y 690 V			$\Delta$ 415 V				
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4		
18,5	93,1	92,9	92,5	93,3	92,9	92,2	93,4	92,8	91,8	3	from 11/2014
22	93,4	93,1	92,8	93,6	93,0	92,4	93,6	92,8	91,9		
30	94,1	94,1	93,5	94,2	94,0	93,0	94,2	93,9	92,5		
37	94,3	94,5	94,1	94,6	94,6	94,0	94,7	94,6	93,8		

P <sub>N</sub> kW	Manufacturer	IEC SIZE	Construction Design	N. of Poles	f <sub>N</sub> Hz	Data for 400 V / 50 Hz Voltage				
	WEG Equipamentos Eletricos S.A. Reg. No. 07.175.725/0010-50 Jaragua do Sul - SC (Brazil)					cos $\phi$	I <sub>s</sub> / I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>s</sub> /T <sub>N</sub>	T <sub>m</sub> /T <sub>N</sub>
	Model									
18,5	W22 180M4-B5 18.5kW E3	180	B5	4	50	0,82	7,30	120,20	2,70	3,00
22	W22 180L4-B5 22kW E3	180				0,83	7,30	142,90	2,80	3,30
30	W22 200L4-B5 30kW E3	200				0,82	7,30	193,60	2,50	3,00
37	W22 225S4-B5 37kW E3	225				0,86	7,80	238,70	2,70	3,00

P <sub>N</sub> kW	Voltage U <sub>N</sub> V					n <sub>N</sub> min <sup>-1</sup>	See note.	Operating conditions **		
	$\Delta$			Y				Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
	380 V	400 V	415 V	660 V	690 V					
	I <sub>N</sub> (A)									
18,5	35,90	34,90	34,40	20,70	20,20	1470	≤ 1000	-15 / +40	No	
22	42,10	40,90	40,40	24,20	23,70	1470				
30	57,70	56,10	55,40	33,20	32,50	1480				
37	68,50	65,60	63,90	39,40	38,00	1480				

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

LNTS-IE3-mott37-4p50-en\_a\_te

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

**e-LNT SERIES**

**AVAILABLE VOLTAGES FOR SM AND PLM MOTORS**

P <sub>N</sub> kW	SINGLE-PHASE							
	50 Hz			60 Hz				
	1 x 220-240			1 x 220-230				
	1 x 100			1 x 100				
	1 x 110-120			1 x 110-115				
				1 x 120-127				
				1 x 200-210				
0,37	s	o	o	s	-	o	-	-
0,55	s	o	o	s	o	o	o	o
0,75	s	o	o	s	o	o	o	o
1,1	s	-	o	s	-	o	-	o
1,5	s	-	-	s	-	o	-	o
2,2	s	-	-	s	-	-	-	-

P <sub>N</sub> 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	o	s	o	o	o	o
0,55	s	o	o	o	o	o	o	o	o	o	s	o	o	o	o
0,75	s	o	o	o	o	o	o	o	o	o	s	o	o	o	o
1,1	s	o	o	o	o	o	o	o	o	o	s	o	o	o	o
1,5	s	o	o	o	o	o	o	o	o	o	s	o	o	o	o
2,2	s	o	o	o	o	o	o	o	o	o	s	o	o	o	o
3	s	o	o	o	o	o	o	o	o	o	s	o	o	o	o
4	o	s	o	o	o	o	o	o	o	o	s	o	o	o	o
5,5	o	s	o	o	o	o	o	o	o	o	s	o	o	o	o
7,5	o	s	o	o	o	o	o	o	o	o	s	o	o	o	o
11	o	s	o	o	o	o	o	o	o	o	s	o	o	o	o
15	o	s	o	o	o	o	o	o	o	o	s	o	o	o	o
18,5	o	s	o	o	o	o	o	o	o	o	s	o	o	o	o
22	o	s	o	o	o	o	o	o	o	o	s	o	o	o	o

s = Standard voltage    o = Voltage upon request    - = Not available

lne-volt-low-a-en\_a\_te

For higher power motors special voltages available on request.

**Tolerances on nominal voltages**

**50Hz:**

± 10% on the single voltage value shown on the rating plate.

± 5% on voltage range shown on the rating plate.

**60Hz:**

± 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 50 Hz motors and have a tolerance of 3 dB (A) according to EN ISO 4871.

### LNTE, LNTS MOTORS 2 POLES 50 Hz

POWER	MOTOR TYPE	NOISE
kW	IEC SIZE *	LpA dB
0,75	80 - 90R	<70
1,1	80 - 90R	<70
1,5	90R	<70
2,2	90	<70
3	90 100R	<70
4	112R	<70
5,5	112 - 132R	<70
7,5	132	71
9,2	132	73
11	132 - 160R	73
15	160	71
18,5	160	73
22	160	70

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

### LNTE, LNTS MOTORS 4 POLES 50 Hz

POWER	MOTOR TYPE	NOISE
kW	IEC SIZE *	LpA dB
0,25	71	<70
0,37	71	<70
0,55	90R	<70
0,75	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

LNT\_mott-en\_b\_tr

## e-LNT SERIES PUMPS

Over last decade the European Commission with the 'Energy Efficiency Plan' pushed the European Parliament and the Council to adopt specific measures to the purpose of reducing energy consumption and further negative environmental impacts. Through the Directives 2005/32/EC, energy-using products (EuP), and 2009/125/EC, energy-related products (ErP) a framework for ecodesign requirements was established.

The **Commission Regulation (EU) No 547/2012** has implemented two directives with regard to ecodesign requirements for **some types of clean water pumps** placed on the market and put into service inside EU zone as self-alone units or integrated in other products.

For end-suction close-coupled in-line pumps (ESCCi for the Regulation) the efficiency assessment refers to:

- just the pump and not the pump and motor assembly (electric or combustion);
- pumps with just one impeller;
- pumps with a nominal pressure PN not higher than 16 bar (1600 kPa);
- pumps with a minimum nominal flow not less than 6 m<sup>3</sup>/h;
- pumps with a maximum nominal power at the shaft not higher than 150 kW;
- pumps designed to operate at a speed of 2900 min<sup>-1</sup> (for electric pumps this means 50 Hz 2-pole electric motors) and with a head not greater than 140 metres;
- pumps designed to operate at a speed of 1450 min<sup>-1</sup> (for electric pumps this means 50 Hz 4-pole electric motors) and with a head not greater than 90 metres;
- use with clean water at a temperature ranging from -10°C to 120°C (the test is performed with cold water at a temperature not higher than 40°C).

According to the definitions established in the Regulation LNTe and LNTs versions correspond to the "end-suction close-coupled in-line pump".

This regulation states that water pumps shall have a minimum index MEI coming from a dedicated formula which considers hydraulic efficiency values at 'best efficiency point' (BEP), 75 % of the flow at BEP (Part load – PL) and 110 % of the flow at BEP (Over load – OL).

The Regulation also establishes the following deadlines.

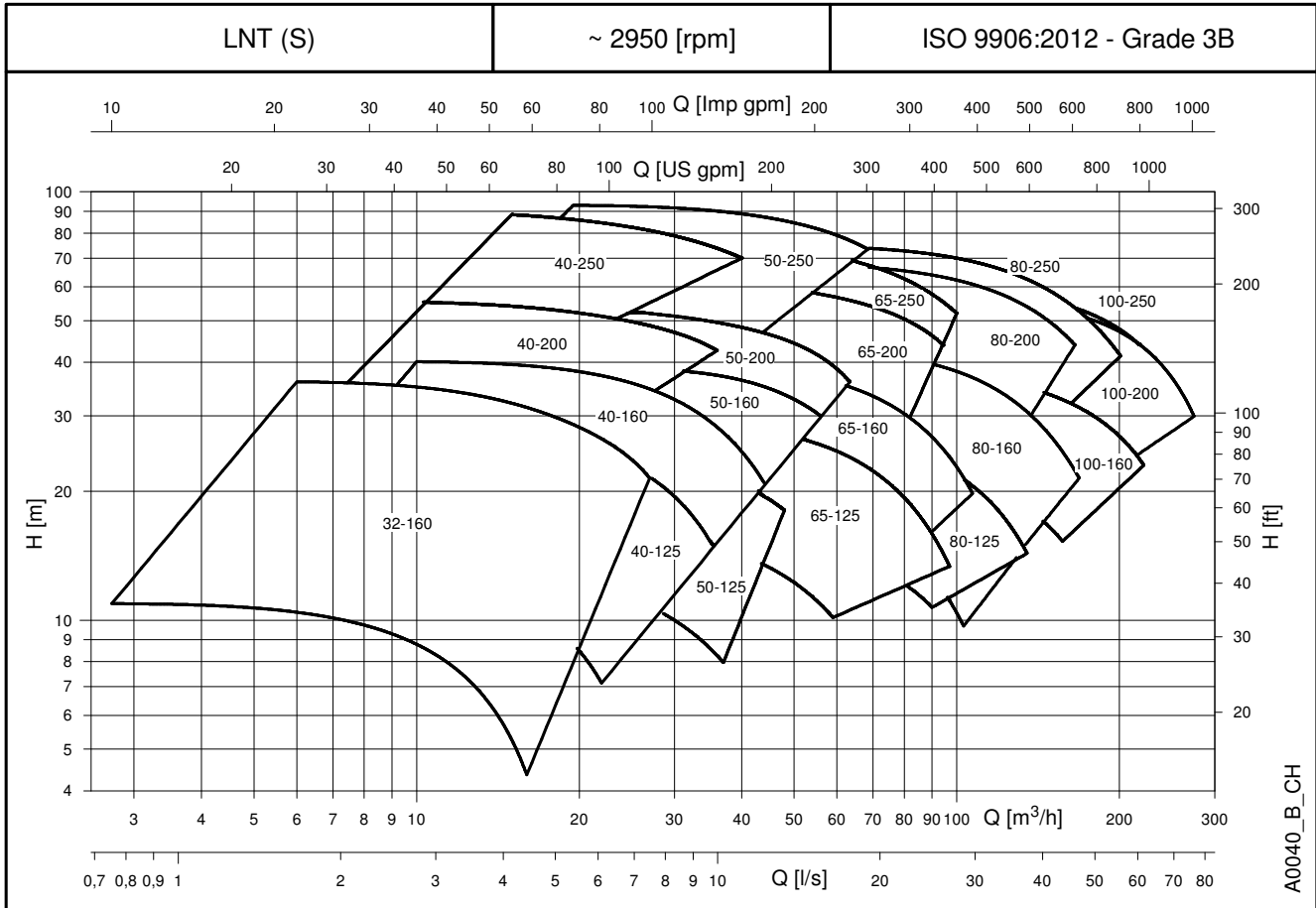
from	minimum efficiency index (MEI)
1 <sup>st</sup> January 2015	MEI ≥ 0,4

### Regulation (EU) n. 547/2012 – Annex II – point 2 (Product information requirements)

- 1) Minimum efficiency index: see MEI values in specific tables on following page.
- 2) "The benchmark for most efficient water pumps is MEI ≥ 0,70".
- 3) Year of manufacture: 2014.
- 4) Manufacturer: Xylem Service Italia Srl - Reg. No 07520560967 - Montecchio Maggiore, Vicenza, Italy.
- 5) Product type: see the PUMP TYPE column in the tables in the *Hydraulic performance* section.
- 6) Hydraulic pump efficiency with trimmed impeller: see  $\eta_p$  and  $\varnothing$  columns in the tables in the *Hydraulic performance* section.
- 7) Pump performance curves, including the performance curve: see the *Operating Characteristics* graphs in the following pages.
- 8) "The efficiency of a pump with a trimmed impeller is usually lower than that of a pump with the full impeller diameter. The trimming of the impeller will adapt the pump to a fixed duty point, leading to reduced energy consumption. The minimum efficiency index (MEI) is based on the full impeller diameter".
- 9) "The operation of this water pump with variable duty points may be more efficient and economic when controlled, for example, by the use of a variable speed drive that matches the pump duty to the system".
- 10) Information relevant for disassembly, recycling or disposal at end-of-life: observe the current laws and by-laws governing sorted waste disposal. Consult the product operating manual.
- 11) "Designed for use below – 10 °C only": note not applicable to these products.
- 12) "Designed for use above 120 °C only": note not applicable to these products.
- 13) Specific instructions for pumps as per points 11 and 12: not applicable to these products.
- 14) "Information on benchmark efficiency is available at": [www.europump.org](http://www.europump.org) (Ecodesign section).
- 15) The benchmark efficiency graphs with MEI = 0.7 and MEI = 0.4 are available at [www.europump.org/efficiencycharts](http://www.europump.org/efficiencycharts) or <http://europump.net/uploads/Fingerprints.pdf> (refer to "ESCCi 1450 rpm").



**e-LNT SERIES (SINGLE OPERATION)**  
**HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 2 POLES**





## e-LNT 32, 40, 50 SERIES (SINGLE OPERATION) HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			η <sub>p</sub> % (3)	Q = DELIVERY													
		STD (1)	B (2)	●		l/s 0	0,8	1,4	1,9	2,5	3,1	3,6	4,2	4,7	5,3	5,8	6,4	7,5	
						m <sup>3</sup> /h 0													
						H = TOTAL HEAD METRES COLUMN OF WATER													
32-160/07A*	0,75	92	-	○	51,9	10,6	10,9	10,7	10,1	9,3	8,2	6,9	5,3						
32-160/07*	0,75	104	-	○	52,4	12,9		13,0	12,5	11,6	10,5	9,1	7,3	5,3					
32-160/11*	1,1	115	-	○	54,1	16,4		17,0	16,7	16,1	15,1	13,9	12,4	10,6	8,6				
32-160/15*	2	126	-	○	55,4	20,9		21,4	21,1	20,4	19,4	18,2	16,7	15,2	13,4	11,4			
32-160/22*	2,2	138	-	○	57,5	26,4		27,2	27,1	26,7	25,8	24,6	23,3	21,8	20,3	18,7	16,9		
32-160/30	3	156	-	●	60,6	35,5			35,9	35,4	34,6	33,5	32,1	30,6	29,0	27,4	25,6	21,5	

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			η <sub>p</sub> % (3)	Q = DELIVERY													
		STD (1)	B (2)	○		l/s 0	1,7	2,5	3,3	4,2	5,0	5,8	6,7	7,5	8,3	9,2	10,0	12,2	
						m <sup>3</sup> /h 0													
						H = TOTAL HEAD METRES COLUMN OF WATER													
40-125/11*	1,1	113	-	○	58,4	14,2		14,2	13,5	12,3	10,6	8,6							
40-125/15*	1,5	123	-	○	60,2	18,1		18,3	17,8	16,8	15,5	13,8	11,7						
40-125/22*	2,2	133	-	○	62,2	22,8		23,3	22,9	22,2	21,1	19,7	17,9	15,8	13,4				
40-125/30	3	145	-	●	64,0	27,4			27,7	27,1	26,2	25,0	23,5	21,6	19,4	17,0			
40-160/22*	2,2	137	-	○	61,5	23,7		23,6	23,2	22,5	21,7	20,6	19,3	17,8					
40-160/30	3	150	-	○	62,7	29,2		29,7	29,4	28,9	28,1	27,0	25,6	24,0	22,2				
40-160/40	4	160,5	-	○	63,5	34,2			34,4	33,5	32,3	31,0	29,6	27,9	26,1	24,2	22,0		
40-160/55	5,5	171	-	●	64,3	38,6			40,0	39,5	38,7	37,7	36,3	34,7	32,8	30,6	28,3	21,0	
40-200/30	3	158	-	○	51,5	32,5		31,5	30,8	29,7	28,4								
40-200/40	4	171	-	○	52,7	38,4		37,4	36,8	35,8	34,5	33,2	31,5						
40-200/55	5,5	186	-	○	54,2	45,9		44,9	44,3	43,4	42,2	40,9	39,4	37,7	35,7				
40-200/75	7,5	205	-	●	55,9	56,5			54,9	54,1	53,0	51,7	50,2	48,7	47,0	45,0	42,6		
40-250/75	7,5	214	-	○	48,1	59,5			58,6	57,3	55,8	53,9	51,9						
40-250/92	9,2	226,5	-	○	49,0	67,2				65,3	63,7	62,0	59,9	57,7					
40-250/110A	11	226,5	-	○	49,0	67,2				65,3	63,7	62,0	59,9	57,7					
40-250/110	11	239	-	○	50,0	75,4				73,7	72,2	70,5	68,5	66,3	64,0				
40-250/150	15	259	-	●	51,5	89,7				88,4	87,0	85,2	83,3	81,2	78,9	76,4	73,8		

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			η <sub>p</sub> % (3)	Q = DELIVERY													
		STD (1)	B (2)	○		l/s 0	2,8	4,2	5,6	6,9	8,3	9,7	11,1	12,5	13,9	15,3	16,7	18,9	
						m <sup>3</sup> /h 0													
						H = TOTAL HEAD METRES COLUMN OF WATER													
50-125/15*	1,5	105	-	○	58,6	13,7		13,0	12,2	11,2	10,0	8,6							
50-125/22*	2,2	118	-	○	64,7	18,1		17,3	16,7	15,9	14,8	13,5	12,1						
50-125/30	3	130	-	○	66,0	22,6		21,8	21,4	20,7	19,8	18,5	17,0	15,3					
50-125/40	4	135	-	●	68,0	25,7		24,7	24,4	23,9	23,2	22,2	20,8	19,1					
50-160/30	3	127	-	○	64,1	22,8		22,5	22,3	21,6	20,4	18,6							
50-160/40	4	139	-	○	66,8	25,9		25,8	25,5	25,0	24,2	23,1	21,7						
50-160/55	5,5	154	-	○	67,3	34,1		33,6	33,6	33,4	32,8	31,8	30,3	28,5					
50-160/75	7,5	165	-	●	68,4	39,5		38,9	38,9	38,7	38,3	37,5	36,3	34,7	32,8	30,5			
50-200/55	5,5	165	-	○	58,7	36,0		36,1	35,2	34,1	32,8	31,1	29,0						
50-200/75	7,5	179	-	○	60,1	42,7		43,1	42,3	41,2	39,9	38,4	36,7	34,5	31,7				
50-200/92	9,2	189	-	○	61,1	47,9		48,5	47,7	46,7	45,4	44,0	42,3	40,4	38,0	35,0	31,2		
50-200/110A	11	189	-	○	61,1	47,9		48,5	47,7	46,7	45,4	44,0	42,3	40,4	38,0	35,0	31,2		
50-200/110	11	199	-	●	62,1	53,5		54,2	53,5	52,5	51,2	49,8	48,3	46,4	44,3	41,8	38,6		
50-250/92	9,2	199	-	○	58,6	54,0		54,2	53,8	52,8	51,3	49,4	47,0						
50-250/110A	11	199	-	○	58,6	54,0		54,2	53,8	52,8	51,3	49,4	47,0						
50-250/110	11	210	-	○	59,4	60,5		60,7	60,4	59,5	58,2	56,5	54,3	51,7					
50-250/150	15	228	-	○	60,8	71,9			72,0	71,3	70,2	68,7	66,8	64,5	61,8	58,7			
50-250/185	18,5	243	-	○	61,9	82,3			82,5	81,9	81,0	79,6	77,9	75,8	73,3	70,5	67,4		
50-250/220	22	257,5	-	●	63,0	92,7			93,0	92,5	91,7	90,4	88,8	86,9	84,6	82,0	79,1	73,7	

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

LNT-32-40-50\_2p50S-en\_a\_th

(1) STD = Cast iron/Stainless steel - B = Bronze (2) ● = Full impeller diameter - ○ = Trimmed impeller diameter (3) Hydraulic efficiency of pump.

\*Available also in single-phase version.

## e-LNT 65, 80, 100 SERIES (SINGLE OPERATION) HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES

PUMP TYPE	PN kW	Ø Impeller (mm)				Q = DELIVERY													
		STD (1)	B (2)	● (3)	ηp %	l/s 0	5,0	7,2	9,4	11,7	13,9	16,1	18,3	20,6	22,8	25,0	27,2	30,3	
					m <sup>3</sup> /h 0														
					H = TOTAL HEAD METRES COLUMN OF WATER														
65-125/30	3	118	-	○	62,8	17,5			16,1	15,1	13,8	12,2	10,4						
65-125/40	4	130	-	○	65,6	22,1		20,5	19,7	18,4	16,8	14,8	12,5						
65-125/55	5,5	144	-	○	68,0	27,3		26,0	25,3	24,3	22,8	20,9	18,7	16,1	13,3				
65-125/75	7,5	148	-	●	70,1	31,1			28,9	28,0	26,8	25,3	23,4	21,2	18,7	15,9			
65-160/55	5,5	144	-	○	64,4	27,0		25,9	25,4	24,5	23,3	21,7	19,7	17,5	15,0				
65-160/75	7,5	159	-	○	66,0	33,3		31,9	31,3	30,4	29,2	27,6	25,7	23,3	20,7	17,8			
65-160/92	9,2	170	-	○	66,9	37,1		35,7	35,1	34,2	33,0	31,4	29,5	27,3	24,7	21,7	18,6		
65-160/110A	11	170	-	○	66,9	37,1		35,7	35,1	34,2	33,0	31,4	29,5	27,3	24,7	21,7	18,6		
65-160/110	11	176	-	●	68,0	42,0		40,4	39,8	38,9	37,7	36,2	34,4	32,2	29,7	26,8	23,6		
65-200/92	9,2	168	-	○	64,1	36,6		37,3	36,7	35,9	34,7	33,2	30,9						
65-200/110A	11	168	-	○	64,1	36,6		37,3	36,7	35,9	34,7	33,2	30,9						
65-200/110	11	179	-	○	65,3	42,5		43,3	42,6	41,6	40,4	38,8	36,8	34,1					
65-200/150	15	197	-	○	67,4	54,2		55,2	54,4	53,4	52,0	50,4	48,5	46,2	43,3	39,7			
65-200/185	18,5	209	-	●	68,6	61,6			61,8	60,5	59,0	57,2	55,1	52,6	49,7	46,1			
65-250/150	15	208	-	○	64,3	58,8		59,9	58,8	57,0	54,6	51,4	47,6	43,1	38,1	32,5			
65-250/185	18,5	220	-	○	65,1	65,0		66,9	66,4	65,2	63,6	61,3	58,5	55,3	51,5	47,3			
65-250/220	22	232	-	○	66,2	73,9		76,0	75,6	74,5	73,0	70,9	68,3	65,3	61,7	57,7	53,2		
65-250/300	30	256	-	●	68,1	90,9			92,6	91,4	89,7	87,5	84,7	81,4	77,5	73,1	68,3	60,8	

PUMP TYPE	PN kW	Ø Impeller (mm)				Q = DELIVERY													
		STD (1)	B (2)	● (3)	ηp %	l/s 0	5,6	10,0	14,4	18,9	23,3	27,8	32,2	36,7	41,1	45,6	50,0	55,8	
					m <sup>3</sup> /h 0														
					H = TOTAL HEAD METRES COLUMN OF WATER														
80-125/40	4	117,8	-	○	60,7	17,5		16,6	15,2	13,5	11,6								
80-125/110	11	148	144	●	69,4	29,2		28,8	27,9	26,4	24,4	21,9	18,8	15,1					
80-160/55	5,5	130,7	-	○	69,4	21,5		20,7	19,5	17,2	14,1	10,4							
80-160/75	7,5	145	144	○	70,8	26,7		26,0	25,0	23,2	20,5	17,1	13,1						
80-160/92	9,2	151	152	○	71,9	30,8		30,1	29,3	27,7	25,3	22,2	18,4						
80-160/110A	11	151	152	○	71,9	30,8		30,1	29,3	27,7	25,3	22,2	18,4						
80-160/110	11	162	160	○	72,7	34,2		33,6	32,9	31,5	29,3	26,4	22,8	18,7					
80-160/150	15	176	176	○	74,4	41,8		41,2	40,6	39,5	37,7	35,2	32,1	28,3	24,0				
80-160/185	18,5	180	180	●	74,9	44,4		43,7	43,1	42,1	40,4	38,1	35,1	31,4	27,2	22,8			
80-200/110	11	165	162	○	67,6	35,7		35,6	34,3	32,1	28,7	24,4							
80-200/150	15	177	177	○	68,9	43,1		43,3	42,3	40,4	37,5	33,7	29,1						
80-200/185	18,5	189	189	○	70,0	49,5		49,7	48,9	47,2	44,7	41,3	37,0	32,0					
80-200/220	22	199	199	○	70,8	55,1		55,4	54,7	53,2	50,9	47,8	43,8	39,1	33,6				
80-200/300	30	220	218	●	72,6	68,0			67,9	66,7	64,8	62,2	58,8	54,7	49,9	44,4			
80-250/220	22	195	192	○	70,5	51,8		53,5	53,0	51,6	49,4	46,2	42,4	37,9	32,9				
80-250/300	30	215	213	○	72,5	63,5			65,3	64,3	62,5	59,8	56,5	52,4	47,8	42,7	37,3		
80-250/370	37	229	226	●	73,3	72,4			74,6	73,8	72,3	70,0	66,9	63,2	58,9	54,1	48,8	41,4	

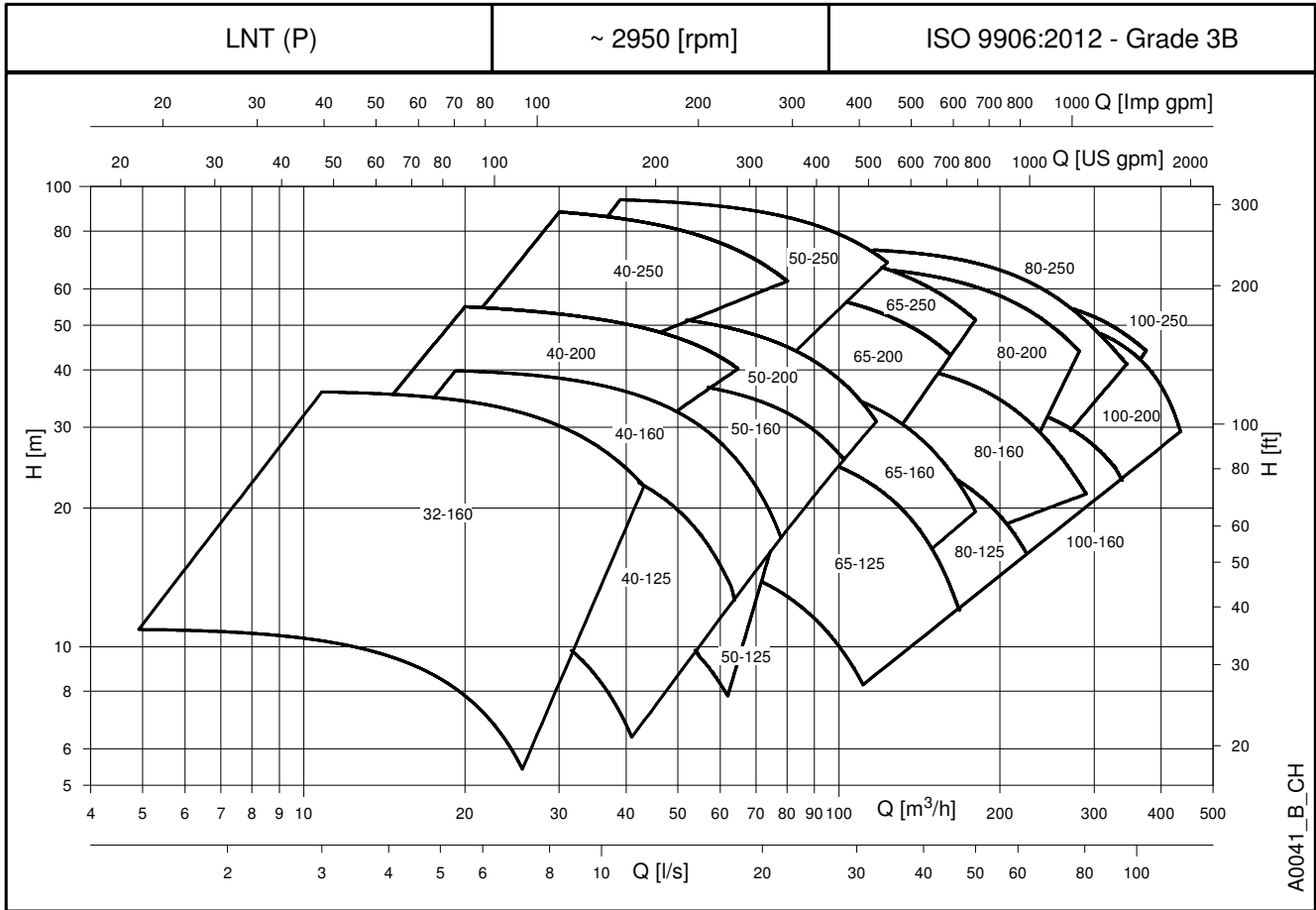
PUMP TYPE	PN kW	Ø Impeller (mm)				Q = DELIVERY													
		STD (1)	B (2)	○ (3)	ηp %	l/s 0	9,7	15,8	21,9	28,1	34,2	40,3	46,4	52,5	58,6	64,7	70,8	76,4	
					m <sup>3</sup> /h 0														
					H = TOTAL HEAD METRES COLUMN OF WATER														
100-160/110	11	144	144	○	68,3	24,7	24,0	23,5	22,6	21,3	19,5	16,9							
100-160/150	15	158	158	○	70,4	32,4		30,9	30,0	28,6	26,8	24,5	21,5						
100-160/185	18,5	168	168	○	71,4	36,9		35,4	34,4	33,2	31,5	29,4	26,7	23,5					
100-160/220	22	177	177	●	72,5	41,2		39,7	38,7	37,5	36,0	34,0	31,6	28,6	25,0				
100-200/220	22	181	177	○	73,9	42,5		41,6	41,4	40,8	39,6	37,6	34,7	30,9	26,0				
100-200/300	30	195	192	○	75,0	49,4		48,3	48,1	47,6	46,7	45,1	42,7	39,5	35,3	30,2			
100-200/370	37	208	204	●	76,5	57,5		56,3	56,0	55,6	54,8	53,5	51,5	48,8	45,3	40,9	35,6	29,9	
100-250/370	37	214	211	●	76,9	63,0			60,0	59,2	57,9	56,0	53,3	49,8	45,4				

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

LNT-65-80-100\_2p50S-en\_b\_th

(1) STD = Cast iron/Stainless steel - B = Bronze (2) ● = Full impeller diameter - ○ = Trimmed impeller diameter (3) Hydraulic efficiency of pump.

**e-LNT SERIES (PARALLEL OPERATION)  
HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 2 POLES**



## e-LNT 32, 40, 50 SERIES (PARALLEL OPERATION) HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			Q = DELIVERY													
		STD	B	●	l/s	0	1,4	2,2	3,1	3,9	4,7	5,6	6,4	7,2	8,1	8,9	9,7	11,9
					m <sup>3</sup> /h	0	5	8	11	14	17	20	23	26	29	32	35	43
H = TOTAL HEAD METRES COLUMN OF WATER																		
32-160/07A*	0,75	92	-	○	10,7	10,9	10,7	10,3	9,6	8,8	7,8	6,6						
32-160/07*	0,75	104	-	○	13,1		12,9	12,6	12,0	11,2	10,1	8,8	7,3					
32-160/11*	1,1	115	-	○	16,5		17,0	16,7	16,2	15,5	14,7	13,6	12,3	10,8				
32-160/15*	1,5	126	-	○	21,1		21,1	20,8	20,4	19,7	18,9	17,9	16,7	15,3	13,6			
32-160/22*	2,2	138	-	○	26,8			26,8	26,4	25,8	25,0	24,1	22,9	21,6	20,2	18,5		
32-160/30	3	156	-	●	35,8			35,8	35,5	34,9	34,2	33,2	32,1	30,7	29,2	27,5	22,5	

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			Q = DELIVERY													
		STD	B	●	l/s	0	3,6	5,3	6,9	8,6	10,3	11,9	13,6	15,3	16,9	18,6	20,3	22,2
					m <sup>3</sup> /h	0	13	19	25	31	37	43	49	55	61	67	73	80
H = TOTAL HEAD METRES COLUMN OF WATER																		
40-125/11*	1,1	113	-	○	14,4	14,4	13,6	12,3	10,4	8,0								
40-125/15*	1,5	123	-	○	18,3		17,9	16,8	15,2	13,2	10,7							
40-125/22*	2,2	133	-	○	23,1		23,1	22,1	20,8	19,0	16,9	14,3						
40-125/30	3	145	-	●	27,8			27,2	26,0	24,4	22,5	20,2	17,6	14,5				
40-160/22*	2,2	137	-	○	23,8		23,2	22,4	21,1	19,5	17,6							
40-160/30	3	150	-	○	29,2		29,4	28,7	27,6	25,9	24,0	21,7	19,2					
40-160/40	4	160,5	-	○	33,7		34,6	34,0	32,7	31,1	29,2	27,0	24,5	21,6	18,4			
40-160/55	5,5	171	-	●	38,8			39,2	38,2	36,7	34,9	32,7	30,2	27,3	24,1	20,5		
40-200/30	3	158	-	○	32,6		30,8	29,7	28,1									
40-200/40	4	171	-	○	38,6		36,8	35,7	34,3	32,5	30,3							
40-200/55	5,5	186	-	○	46,1		44,3	43,3	41,9	40,3	38,3	36,0						
40-200/75	7,5	205	-	●	56,7			53,9	52,7	51,1	49,3	47,3	44,9	42,1				
40-250/75	7,5	214	-	○	60,1			58,1	56,5	54,3	51,6							
40-250/92	9,2	226,5	-	○	68,0			66,0	64,5	62,5	60,0	57,0	53,6					
40-250/110A	11	226,5	-	○	68,0			66,0	64,5	62,5	60,0	57,0	53,6					
40-250/110	11	239	-	○	76,3				73,0	71,1	68,7	65,9	62,7	59,2				
40-250/150	15	259	-	●	90,9				87,8	86,0	83,8	81,2	78,2	74,9	71,2	67,3	62,3	

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			Q = DELIVERY													
		STD	B	●	l/s	0	5,6	8,1	10,6	13,1	15,6	18,1	20,6	23,1	25,6	28,1	30,6	34,2
					m <sup>3</sup> /h	0	20	29	38	47	56	65	74	83	92	101	110	123
H = TOTAL HEAD METRES COLUMN OF WATER																		
50-125/15*	1,5	105	-	○	15,0	13,9	13,4	12,5	11,1	9,3								
50-125/22*	2,2	118	-	○	19,2		17,5	16,8	15,7	14,2	12,3							
50-125/30	3	130	-	○	23,6		21,9	21,2	20,3	19,0	17,4							
50-125/40	4	135	-	●	26,4			24,0	23,1	22,0	20,5	18,7						
50-160/30	3	127	-	○	23,3		22,1	21,3	20,1	18,3	16,0							
50-160/40	4	139	-	○	27,1		25,8	25,2	24,3	23,1	21,4	19,4						
50-160/55	5,5	154	-	○	35,0		33,7	33,1	32,2	31,0	29,5	27,5	25,0					
50-160/75	7,5	165	-	●	40,5			38,5	37,8	36,7	35,4	33,6	31,5	28,9				
50-200/55	5,5	165	-	○	36,3		35,8	34,8	33,4	31,5	29,1							
50-200/75	7,5	179	-	○	43,1		42,8	41,9	40,6	39,0	36,9	34,3	31,4	28,1				
50-200/92	9,2	189	-	○	48,4		48,1	47,3	46,2	44,6	42,7	40,3	37,6	34,5	31,0			
50-200/110A	11	189	-	○	48,4		48,1	47,3	46,2	44,6	42,7	40,3	37,6	34,5	31,0			
50-200/110	11	199	-	●	54,0			53,1	52,0	50,6	48,7	46,5	44,0	41,1	37,8	34,2		
50-250/92	9,2	199	-	○	54,8		54,4	53,5	52,1	50,0	47,4	44,2						
50-250/110A	11	199	-	○	54,8		54,4	53,5	52,1	50,0	47,4	44,2						
50-250/110	11	210	-	○	61,5		61,1	60,3	59,0	57,1	54,7	51,8	48,3					
50-250/150	15	228	-	○	73,2			72,2	71,1	69,5	67,4	64,7	61,7	58,1				
50-250/185	18,5	243	-	○	83,9			83,0	81,9	80,5	78,6	76,2	73,4	70,1	66,5	62,4		
50-250/220	22	257,5	-	●	94,7				92,8	91,4	89,7	87,5	84,9	81,9	78,5	74,6	68,5	

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

LNT-32-40-50\_2p50P-en\_a\_th

(1) STD = Cast iron/Stainless steel - B = Bronze (2) ● = Full impeller diameter - ○ = Trimmed impeller diameter

\*Available also in single-phase version.

## e-LNT 65, 80, 100 SERIES (PARALLEL OPERATION) HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES

PUMP TYPE	PN kW	Ø Impeller (mm)			Q = DELIVERY												
		STD	B	●	l/s	10,0	14,2	18,3	22,5	26,7	30,8	35,0	39,2	43,3	47,5	51,7	55,0
					m <sup>3</sup> /h	0	36	51	66	81	96	111	126	141	156	171	186
H = TOTAL HEAD METRES COLUMN OF WATER																	
65-125/30	3	118	-	○	18,2		15,7	14,4	12,7	10,6	8,3						
65-125/40	4	130	-	○	23,0		20,1	18,9	17,3	15,3	12,9	10,2					
65-125/55	5,5	144	-	○	28,4		25,4	24,5	23,1	21,2	18,8	16,1	13,1				
65-125/75	7,5	148	-	●	32,1			28,0	26,7	25,1	23,2	20,8	18,0	14,8			
65-160/55	5,5	144	-	○	27,0		25,6	24,8	23,5	21,8	19,7	17,2					
65-160/75	7,5	159	-	○	33,3		31,6	30,7	29,4	27,6	25,5	22,9	20,0	16,9			
65-160/92	9,2	170	-	○	37,1		35,3	34,4	33,1	31,4	29,2	26,7	23,8	20,6			
65-160/110A	11	170	-	○	37,1		35,3	34,4	33,1	31,4	29,2	26,7	23,8	20,6			
65-160/110	11	176	-	●	42,0			39,1	37,8	36,1	34,0	31,5	28,6	25,3	21,8		
65-200/92	9,2	168	-	○	36,6		37,0	36,2	35,0	33,4	31,1						
65-200/110A	11	168	-	○	36,6		37,0	36,2	35,0	33,4	31,1						
65-200/110	11	179	-	○	42,5		42,9	41,9	40,6	38,9	36,7	33,7					
65-200/150	15	197	-	○	54,2		54,6	53,5	51,9	50,1	47,9	45,1	41,8				
65-200/185	18,5	209	-	●	62,0			60,9	59,3	57,3	54,8	51,9	48,5	44,6			
65-250/150	15	208	-	○	58,8		59,5	58,1	55,9	53,0	49,5	45,5	41,0	36,2			
65-250/185	18,5	220	-	○	65,0		66,7	65,8	64,2	62,1	59,4	56,3	52,7	48,8	44,6		
65-250/220	22	232	-	○	73,9		75,8	74,9	73,4	71,3	68,7	65,5	62,0	58,1	53,9		
65-250/300	30	256	-	●	90,9			91,6	89,7	87,2	84,0	80,4	76,3	71,8	67,0	62,0	57,8

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			Q = DELIVERY												
		STD	B	●	l/s	11,9	19,4	26,9	34,4	41,9	49,4	56,9	64,4	71,9	79,4	86,9	95,8
					m <sup>3</sup> /h	0	43	70	97	124	151	178	205	232	259	286	313
H = TOTAL HEAD METRES COLUMN OF WATER																	
80-125/40	4	117,8	-	○	17,7		16,3	15,0	13,0	10,7							
80-125/110	11	148	144	●	30,5		28,9	27,9	26,5	24,5	21,8	18,6	14,8				
80-160/55	5,5	130,7	-	○	21,7	20,7	20,2	18,7	16,2								
80-160/75	7,5	145	144	○	27,1		25,4	24,3	22,3	19,4							
80-160/92	9,2	151	152	○	31,3		29,5	28,6	26,9	24,2	20,9	17,2					
80-160/110A	11	151	152	○	31,3		29,5	28,6	26,9	24,2	20,9	17,2					
80-160/110	11	162	160	○	34,9		33,0	32,2	30,7	28,3	25,2	21,5					
80-160/150	15	176	176	○	42,7		40,6	39,9	38,7	36,8	34,1	30,8	26,9	22,9			
80-160/185	18,5	180	180	●	45,3			42,4	41,3	39,5	37,0	33,8	30,0	26,0	22,0		
80-200/110	11	165	162	○	35,5		35,1	33,5	30,8	27,2	23,0						
80-200/150	15	177	177	○	43,0		42,8	41,5	39,3	36,1	32,1	27,6					
80-200/185	18,5	189	189	○	49,4		49,2	48,2	46,2	43,3	39,6	35,3	30,6				
80-200/220	22	199	199	○	55,1		54,9	54,0	52,3	49,7	46,2	42,1	37,4				
80-200/300	30	220	218	●	68,1			67,3	65,9	63,8	60,8	57,2	52,8	48,1			
80-250/220	20	195	192	○	52,3		52,5	51,9	50,4	48,0	44,5	40,4	35,8	31,3			
80-250/300	30	215	213	○	64,2			64,1	63,0	61,1	58,3	54,7	50,3	45,6	40,7	36,3	
80-250/370	37	229	226	●	73,3			73,3	72,5	70,9	68,5	65,2	61,2	56,7	51,7	46,7	41,2

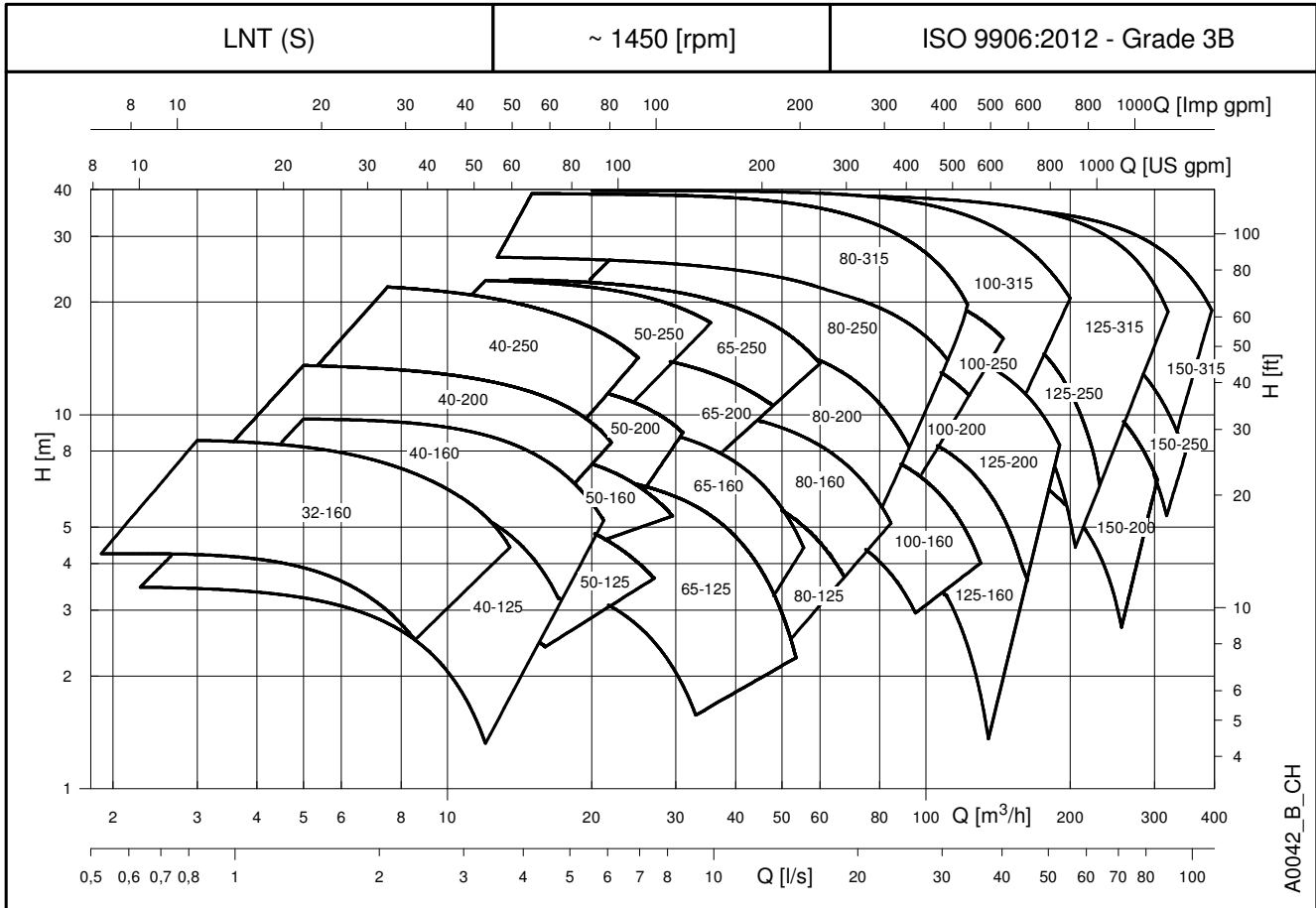
PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			Q = DELIVERY												
		STD	B	●	l/s	21,9	30,8	39,7	48,6	57,5	66,4	75,3	84,2	93,1	101,9	110,8	120,8
					m <sup>3</sup> /h	0	79	111	143	175	207	239	271	303	335	367	399
H = TOTAL HEAD METRES COLUMN OF WATER																	
100-160/110	11	144	144	○	24,7		23,0	21,9	20,1	17,5							
100-160/150	15	158	158	○	32,4		30,2	29,1	27,7	25,9	23,5	20,6					
100-160/185	18,5	168	168	○	36,9		34,2	33,0	31,7	30,1	28,2	25,9	22,8				
100-160/220	22	177	177	●	41,6			36,5	35,2	33,8	32,0	29,8	27,0				
100-200/220	22	181	177	○	42,1		40,7	40,3	39,4	38,1	36,2	33,6	30,1	25,0			
100-200/300	30	195	192	○	49,0		47,5	47,1	46,4	45,3	43,7	41,6	38,9	35,3	30,3		
100-200/370	37	208	204	●	57,1		55,4	55,1	54,5	53,6	52,3	50,5	48,3	45,5	41,9	37,1	29,4
100-250/370	37	214	211	●	61,5			59,5	58,8	57,8	56,3	54,4	51,8	48,6	44,9		

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

LNT-65-80-100\_2p50P-en\_b\_th

(1) STD = Cast iron/Stainless steel - B = Bronze (2) ● = Full impeller diameter - ○ = Trimmed impeller diameter

**e-LNT SERIES (SINGLE OPERATION)**  
**HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES**



## e-LNT 32, 40, 50 SERIES (SINGLE OPERATION) HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			Q = DELIVERY														
		STD (1)	B (2)	● (3)	ηp %	l/s	0,6	0,8	1,1	1,4	1,7	1,9	2,2	2,5	2,8	3,1	3,3	3,6	
						m <sup>3</sup> /h	0	2	3	4	5	6	7	8	9	10	11	12	13
32-160/02A	0,25	115	-	○	53,9	4,1	4,3	4,2	4,1	3,9	3,6	3,2	2,8						
32-160/02	0,25	138	-	○	56,7	6,5		6,4	6,3	6,2	6,0	5,7	5,3	4,9	4,3	3,7			
32-160/03	0,37	156	-	●	59,5	8,6		8,5	8,4	8,2	7,9	7,6	7,2	6,8	6,3	5,9	5,3	4,8	

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			Q = DELIVERY													
		STD (1)	B (2)	● (3)	ηp %	l/s	0,6	1,1	1,7	2,2	2,8	3,3	3,9	4,4	5,0	5,6	6,1	6,9
						m <sup>3</sup> /h	0	2	4	6	8	10	12	14	16	18	20	22
40-125/02B	0,25	113	-	○	55,8	3,4		3,4	3,2	2,7	2,0	1,2						
40-125/02A	0,25	123	-	○	57,7	4,3		4,3	4,1	3,7	3,2	2,4						
40-125/02	0,25	133	-	○	59,8	5,4		5,5	5,3	5,0	4,6	3,9	3,1					
40-125/03	0,37	145	-	●	61,5	6,5		6,6	6,5	6,2	5,8	5,3	4,6	3,7				
40-160/02	0,25	137	-	○	58,4	5,9		6,1	6,0	5,7	5,2							
40-160/03	0,37	150	-	○	59,8	7,2			7,3	7,1	6,7	6,1	5,4					
40-160/05	0,55	160,5	-	○	61,1	8,3			8,5	8,3	7,9	7,4	6,8	6,1	5,2			
40-160/07	0,75	171	-	●	62,4	9,5			9,7	9,6	9,3	8,8	8,3	7,5	6,7	5,8		
40-200/05A	0,55	158	-	○	50,0	8,1		7,8	7,6	7,2	6,7	6,1	5,3					
40-200/05	0,55	171	-	○	51,0	9,3		8,9	8,7	8,3	7,9	7,3	6,6	5,7				
40-200/07	0,75	186	-	○	52,8	11,5			10,9	10,6	10,2	9,7	9,1	8,3	7,4			
40-200/11	1,1	205	-	●	54,7	14,1			13,4	13,2	12,8	12,4	11,8	11,2	10,4	9,5	8,4	
40-250/11	1,1	214	-	○	47,5	14,9			14,6	14,1	13,5	12,7	11,9	11,0	10,0			
40-250/15B	1,5	214	-	○	47,5	14,9			14,6	14,1	13,5	12,7	11,9	11,0	10,0			
40-250/15A	1,5	226,5	-	○	48,4	16,8				16,1	15,5	14,8	14,0	13,1	12,1	11,0		
40-250/15	1,5	239	-	○	49,3	18,9				18,2	17,6	16,9	16,1	15,2	14,3	13,2	12,1	
40-250/22	2,2	259	-	●	50,8	22,5				21,9	21,3	20,6	19,8	19,0	18,1	17,1	16,0	14,2

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			Q = DELIVERY														
		STD (1)	B (2)	● (3)	ηp %	l/s	0	1,4	2,2	3,1	3,9	4,7	5,6	6,4	7,2	8,1	8,9	9,7	10,0
						m <sup>3</sup> /h	0	5	8	11	14	17	20	23	26	29	32	35	36
50-125/02A	0,25	105	-	○	61,9	3,5			3,2	3,0	2,7								
50-125/02	0,25	118	-	○	63,9	4,5			4,2	4,1	3,8								
50-125/03	0,37	130	-	○	65,8	5,6			5,2	5,1	4,9	4,5	4,1						
50-125/05	0,55	135	-	●	66,9	6,2			5,9	5,7	5,5	5,2	4,8	4,4	3,8				
50-160/03	0,37	127	-	○	62,5	5,6			5,5	5,4	5,1	4,7							
50-160/05	0,55	139	-	○	63,9	6,7			6,7	6,6	6,4	6,0	5,5	4,9					
50-160/07	0,75	154	-	○	65,6	8,4			8,3	8,2	8,1	7,8	7,4	6,9	6,2	5,5			
50-160/11	1,1	165	-	●	66,8	9,7			9,6	9,5	9,4	9,2	8,8	8,4	7,8	7,1	6,4		
50-200/07	0,75	165	-	○	57,5	8,9			8,5	8,1	7,6	7,0	6,2						
50-200/11A	1,1	179	-	○	58,8	10,5			10,2	9,8	9,4	8,8	8,2	7,3					
50-200/11	1,1	189	-	○	59,9	11,8				11,2	10,7	10,2	9,6	8,9	7,9				
50-200/15	1,5	199	-	●	60,8	13,2				12,6	12,2	11,7	11,1	10,4	9,6				
50-250/11	1,1	199	-	○	57,7	13,5			13,1	12,8	12,2	11,5							
50-250/15A	1,5	199	-	○	57,7	13,5			13,1	12,8	12,2	11,5							
50-250/15	1,5	210	-	○	58,5	15,1			14,8	14,4	14,0	13,3	12,5						
50-250/22A	2,2	228	-	○	59,9	18,0			17,6	17,4	17,0	16,4	15,7	14,8	13,9				
50-250/22	2,2	243	-	○	61,3	20,6				20,0	19,6	19,1	18,5	17,7	16,8				
50-250/30	3	257,5	-	●	62,2	23,3				22,7	22,4	21,9	21,3	20,6	19,8	18,8	17,8		

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

LNT-32-40-50\_4p50S-en\_a\_th

(1) STD = Cast iron/Stainless steel - B = Bronze (2) ● = Full impeller diameter - ○ = Trimmed impeller diameter (3) Hydraulic efficiency of pump.

## e-LNT 65, 80 SERIES (SINGLE OPERATION) HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)				Q = DELIVERY															
		STD (1)	B (1)	○ (2)	● (2)	η <sub>p</sub> % (3)	l/s	0	2,2	3,6	5,0	6,4	7,8	9,2	10,6	11,9	13,3	14,7	16,1	16,7	
							m <sup>3</sup> /h	0	8	13	18	23	28	33	38	43	48	53	58	60	
H = TOTAL HEAD METRES COLUMN OF WATER																					
65-125/03	0,37	118	-	○	64,0	4,2	3,9	3,7	3,4	3,0	2,3	1,6									
65-125/05	0,55	130	-	○	66,0	5,5		5,1	4,8	4,4	3,8	3,1	2,3								
65-125/07	0,75	144	-	○	67,6	6,8		6,3	6,0	5,7	5,2	4,6	3,9	3,0	2,1						
65-125/11	1,1	148	-	●	68,9	7,7		7,2	7,0	6,7	6,2	5,7	5,0	4,2	3,3	2,3					
65-160/07	0,75	144	-	○	64,8	6,8		6,4	6,2	5,9	5,4	4,8	4,0	3,2							
65-160/11A	1,1	159	-	○	66,2	8,1		7,7	7,5	7,1	6,7	6,1	5,4	4,5	3,6						
65-160/11	1,1	170	-	○	67,1	9,2		8,8	8,5	8,2	7,8	7,2	6,5	5,6	4,6						
65-160/15	1,5	176	-	●	68,3	10,4		10,0	9,7	9,4	9,0	8,4	7,8	7,0	6,0	5,0					
65-200/11	1,1	168	-	○	61,2	9,3		9,2	9,0	8,6	8,0	7,4									
65-200/15A	1,5	168	-	○	61,2	9,3		9,2	9,0	8,6	8,0	7,4									
65-200/15	1,5	179	-	○	62,2	10,6		10,6	10,3	9,9	9,3	8,7									
65-200/22A	2,2	197	-	○	64,5	13,6		13,5	13,3	12,9	12,2	11,5	10,6								
65-200/22	2,2	209	-	●	65,3	15,2		15,2	15,0	14,6	14,0	13,3	12,5	11,5							
65-250/22A	2,2	208	-	○	62,8	14,5		14,6	14,3	13,8	13,1	12,3	11,3	10,2							
65-250/22	2,2	220	-	○	63,8	16,4		16,6	16,2	15,7	15,0	14,2	13,2	12,0	10,7						
65-250/30	3	232	-	○	64,9	18,5		18,7	18,4	17,9	17,2	16,4	15,4	14,2	12,9						
65-250/40	4	256	-	●	66,9	22,8			22,7	22,3	21,6	20,8	19,8	18,7	17,4	16,0	14,4	13,7			

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)				Q = DELIVERY															
		STD (1)	B (1)	○ (2)	● (2)	η <sub>p</sub> % (3)	l/s	0	3,1	6,1	9,2	12,2	15,3	18,3	21,4	24,4	27,5	30,6	33,6	36,1	
							m <sup>3</sup> /h	0	11	22	33	44	55	66	77	88	99	110	121	130	
H = TOTAL HEAD METRES COLUMN OF WATER																					
80-125/05	0,55	117,8	-	○	64,4	3,9		3,7	3,1	2,4											
80-125/15	1,5	148	144	●	69,2	7,2		7,1	6,7	6,0	5,1	3,9									
80-160/11B	1,1	130,7	-	○	68,5	5,3	5,4	5,0	4,4	3,3											
80-160/15C	1,5	130,7	-	○	68,5	5,3	5,4	5,0	4,4	3,3											
80-160/11A	1,1	145	144	○	69,8	6,4		6,2	5,6	4,7	3,4										
80-160/15B	1,5	145	144	○	69,8	6,4		6,2	5,6	4,7	3,4										
80-160/11	1,1	151	152	○	71,0	7,4		7,4	6,8	6,0	4,8										
80-160/15A	1,5	151	152	○	71,0	7,4		7,4	6,8	6,0	4,8										
80-160/15	1,5	162	160	○	71,8	8,3		8,2	7,7	6,9	5,9	4,5									
80-160/22A	2,2	176	176	○	73,3	10,1		10,2	9,7	9,0	8,1	6,9	5,4								
80-160/22	2,2	180	180	●	74,1	10,7		10,8	10,4	9,7	8,8	7,6	6,2								
80-200/15	1,5	165	162	○	69,2	9,3		9,0	8,3	7,1											
80-200/22A	2,2	177	177	○	70,3	10,7		10,5	9,9	8,8	7,3										
80-200/22	2,2	189	189	○	71,3	12,3		12,1	11,6	10,6	9,2	7,4									
80-200/30	3	199	199	○	72,0	13,7		13,5	13,0	12,2	10,9	9,2	7,1								
80-200/40	4	220	218	●	74,1	16,9		16,7	16,3	15,6	14,6	13,1	11,3	9,1							
80-250/30	3	195	192	○	67,7	12,7		13,3	12,7	11,8	10,6	9,0	7,0								
80-250/40	4	215	213	○	69,2	15,6		16,4	15,9	15,0	13,9	12,6	10,9	8,9							
80-250/55A	5,5	229	226	○	70,2	17,7		18,7	18,3	17,5	16,5	15,2	13,7	11,9							
80-250/55	5,5	243	240	○	71,4	20,1		21,2	20,8	20,1	19,2	18,0	16,5	14,9	12,9						
80-250/75	7,5	258	255	●	72,4	22,8		24,0	23,7	23,1	22,2	21,1	19,7	18,1	16,3	14,2					
80-315/75	7,5	278	278	○	63,3	26,5		25,9	25,1	24,0	22,6	20,8	18,4	15,2	10,9						
80-315/110	11	315	315	○	65,2	34,7		34,3	33,8	32,9	31,5	29,7	27,6	25,1	22,2	18,3	12,6				
80-315/150	15	334	334	●	66,0	39,4		38,9	38,5	37,7	36,4	34,7	32,6	30,2	27,3	24,1	20,1	16,2			

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

LNT-65-80\_4p50S-en\_b\_th

(1) STD = Cast iron/Stainless steel - B = Bronze (2) ● = Full impeller diameter - ○ = Trimmed impeller diameter (3) Hydraulic efficiency of pump.



## e-LNT 100, 125, 150 SERIES (SINGLE OPERATION) HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 4 POLES

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)				Q = DELIVERY													
		STD (1)	B (2)	● (3)	η <sub>p</sub> % (3)	l/s m <sup>3</sup> /h	0	5,0	9,7	14,4	19,2	23,9	28,6	33,3	38,1	42,8	47,5	52,2	55,6
H = TOTAL HEAD METRES COLUMN OF WATER																			
100-160/15	1,5	144	144	○	68,5	6,2		5,8	5,4	4,7	3,6								
100-160/22A	2,2	158	158	○	70,2	7,7		7,3	6,9	6,2	5,3	4,0							
100-160/22	2,2	168	168	○	71,0	8,7		8,3	7,9	7,2	6,3	5,1	3,6						
100-160/30	3	177	177	●	72,3	9,8		9,4	9,0	8,4	7,5	6,4	5,0						
100-200/30	3	181	177	○	71,7	10,8		10,7	10,4	9,6	8,3								
100-200/40	4	195	192	○	72,9	12,6		12,5	12,3	11,7	10,6	8,9							
100-200/55A	5,5	208	204	○	74,1	14,4		14,3	14,2	13,7	12,8	11,3							
100-200/55	5,5	219	216	●	74,9	16,1		15,9	15,8	15,5	14,7	13,4	11,6						
100-250/55A	5,5	214	211	○	71,4	15,6		15,5	15,3	14,6	13,3	11,5							
100-250/55	5,5	227	224	○	72,3	17,2		17,1	17,0	16,6	15,6	14,1							
100-250/75	7,5	241	238	○	74,4	20,0		19,8	19,7	19,3	18,4	17,0	15,1						
100-250/110	11	259	256	●	75,8	23,3		23,0	22,9	22,6	21,9	20,8	19,1	17,1					
100-315/110	11	274	274	○	67,7	26,2		26,0	25,4	24,3	22,8	20,9	18,8	16,3	13,1				
100-315/150	15	304	304	○	68,6	32,6		32,7	32,3	31,3	30,0	28,2	26,1	23,7	21,1	17,9			
100-315/185	18,5	321	321	○	69,1	36,6		36,5	36,2	35,4	34,3	32,7	30,7	28,3	25,6	22,7	19,7		
100-315/220	22	334	334	●	69,5	39,6		39,6	39,4	38,8	37,8	36,3	34,3	31,9	29,1	26,1	23,1	21,0	

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)				Q = DELIVERY													
		STD (1)	B (2)	● (3)	η <sub>p</sub> % (3)	l/s m <sup>3</sup> /h	0	5,0	12,5	20,0	27,5	35,0	42,5	50,0	57,5	65,0	72,5	80,0	88,9
H = TOTAL HEAD METRES COLUMN OF WATER																			
125-160/22	2,2	148	148	○	64,1	6,0	6,0	5,9	5,3	4,0	2,1								
125-160/30	3	167	167	○	68,9	8,3		8,1	7,6	6,4	4,5								
125-160/40	4	184	184	●	73,5	10,3		10,2	9,7	8,6	6,9	4,5							
125-200/55	5,5	202	202	○	73,4	13,0		12,8	12,3	11,3	9,6	7,2							
125-200/75	7,5	227	227	●	77,4	17,0		16,7	16,3	15,5	14,1	12,1	9,5						
125-250/75	7,5	230	230	○	75,5	17,2		17,1	16,6	15,5	13,8	11,4	8,0						
125-250/110	11	259	259	●	77,1	22,1		22,1	21,6	20,6	19,1	17,0	14,1	10,5					
125-315/150	15	276	276	○	75,4	25,9		25,8	25,3	24,5	23,4	21,8	19,8	17,3	14,0	9,8			
125-315/185	18,5	291	291	○	75,8	28,9		28,7	28,3	27,6	26,5	25,1	23,3	20,9	18,0	14,2			
125-315/220	22	308	308	○	76,1	32,7		32,5	32,1	31,4	30,5	29,2	27,5	25,3	22,7	19,4	15,6		
125-315/300	30	334	334	●	77,0	39,2		38,8	38,5	37,9	37,2	36,1	34,6	32,7	30,4	27,5	24,1	19,4	

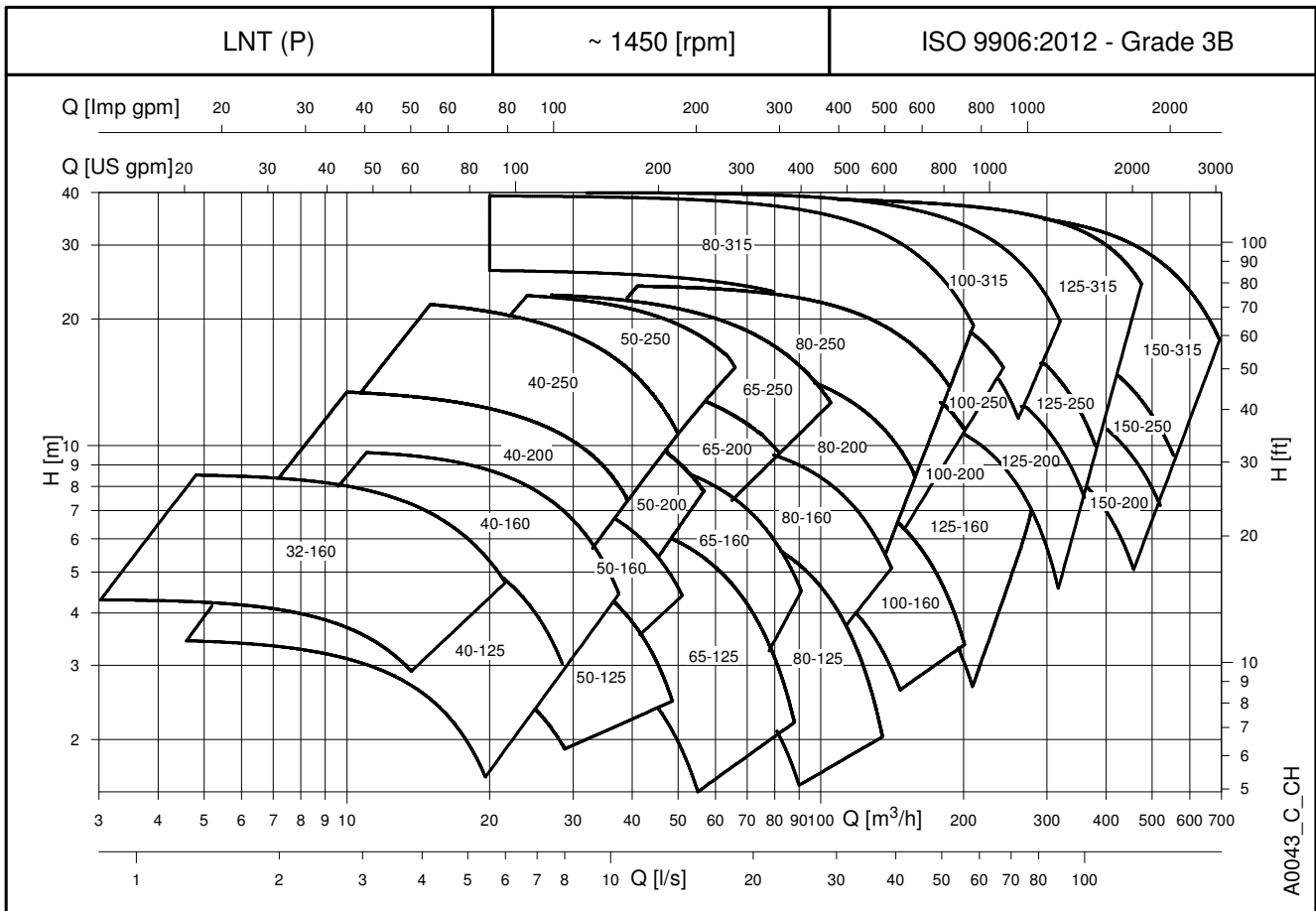
PUMP TYPE	P <sub>N</sub> kW	Ø Girante (mm)				Q = DELIVERY													
		STD (1)	B (2)	● (3)	η <sub>p</sub> % (3)	l/s m <sup>3</sup> /h	0	10,0	19,2	28,3	37,5	46,7	55,8	65,0	74,2	83,3	92,5	101,7	109,7
H = TOTAL HEAD METRES COLUMN OF WATER																			
150-200/55	5,5	175	175	○	68,8	9,3	9,3	9,2	8,7	7,8	6,8	5,6	3,8						
150-200/75	7,5	195	195	○	70,6	11,9		11,7	11,2	10,5	9,4	8,1	6,5	4,7					
150-200/110	11	220	220	●	76,9	15,6		15,1	14,8	14,3	13,5	12,3	10,9	9,1	7,0				
150-250/110	11	225	225	○	76,5	16,2	16,2	16,2	16,0	15,3	14,3	12,9	11,2	9,2	6,9				
150-250/150	15	249	249	●	78,8	20,4		20,3	20,0	19,5	18,7	17,5	15,9	14,0	11,7	9,1			
150-315/185	18,5	272	272	○	76,2	24,9		24,8	24,4	23,7	22,6	21,1	19,2	16,7	13,7	10,0			
150-315/220	22	285	285	○	77,1	27,8		27,8	27,4	26,7	25,7	24,3	22,5	20,2	17,5	14,1			
150-315/300	30	308	308	○	79,3	33,1		33,1	33,0	32,5	31,6	30,3	28,6	26,6	24,2	21,4	17,9		
150-315/370	37	322	322	●	79,5	36,5		36,3	36,2	35,9	35,2	34,1	32,6	30,6	28,2	25,5	22,5	19,8	

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

LNT-100-125-150\_4p50S-en\_a\_th

(1) STD = Cast iron/Stainless steel - B = Bronze (2) ● = Full impeller diameter - ○ = Trimmed impeller diameter (3) Hydraulic efficiency of pump.

**e-LNT SERIES (PARALLEL OPERATION)  
HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES**



## e-LNT 32, 40, 50 SERIES (PARALLEL OPERATION) HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			Q = DELIVERY													
		STD	B	●	l/s	0	1,1	1,4	1,7	2,2	2,8	3,3	3,9	4,2	4,7	5,0	5,6	5,8
					m <sup>3</sup> /h	0	4	5	6	8	10	12	14	15	17	18	20	21
					H = TOTAL HEAD METRES COLUMN OF WATER													
32-160/02A	0,25	115	-	○	4,2	4,3	4,2	4,2	4,0	3,7	3,3							
32-160/02	0,25	138	-	○	6,5	6,4	6,4	6,4	6,2	5,9	5,6	5,1	4,8	4,3				
32-160/03	0,37	156	-	●	8,6		8,5	8,5	8,3	8,0	7,6	7,2	6,9	6,3	6,0	5,3	4,9	

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			Q = DELIVERY													
		STD	B	●	l/s	0	1,4	2,5	3,6	4,7	5,8	6,9	8,1	9,2	10,3	11,4	12,5	13,9
					m <sup>3</sup> /h	0	5	9	13	17	21	25	29	33	37	41	45	50
					H = TOTAL HEAD METRES COLUMN OF WATER													
40-125/02B	0,25	113	-	○	3,4	3,4	3,2	2,7	1,8									
40-125/02A	0,25	123	-	○	4,3		4,1	3,7	3,0	2,0								
40-125/02	0,25	133	-	○	5,4		5,3	5,0	4,4	3,6	2,5							
40-125/03	0,37	145	-	●	6,5		6,4	6,1	5,6	4,9	4,0							
40-160/02	0,25	137	-	○	6,0		6,0	5,7	5,1									
40-160/03	0,37	150	-	○	7,2			7,0	6,6	5,9	5,0							
40-160/05	0,55	160,5	-	○	8,4			8,2	7,8	7,2	6,4	5,4						
40-160/07	0,75	171	-	●	9,6			9,5	9,1	8,6	7,8	6,9	5,8	4,6				
40-200/05A	0,55	158	-	○	8,1		7,6	7,2	6,6	5,8								
40-200/05	0,55	171	-	○	9,6		9,0	8,6	8,1	7,4	6,5							
40-200/07	0,75	186	-	○	11,4		10,9	10,5	10,0	9,4	8,6	7,5	6,3					
40-200/11	1,1	205	-	●	14,1			13,2	12,7	12,1	11,4	10,5	9,4	8,1	6,6			
40-250/11	1,1	214	-	○	14,9			14,2	13,6	12,7	11,6	10,4	8,9	7,3				
40-250/15B	1,5	214	-	○	14,9			14,2	13,6	12,7	11,6	10,4	8,9	7,3				
40-250/15A	1,5	226,5	-	○	16,8			16,2	15,6	14,7	13,7	12,5	11,2	9,6	8,0			
40-250/15	1,5	239	-	○	18,8				17,7	16,9	15,9	14,8	13,5	12,0	10,4			
40-250/22	2,2	259	-	●	22,4				21,4	20,6	19,7	18,6	17,4	16,0	14,5	12,9	10,7	

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			Q = DELIVERY													
		STD	B	●	l/s	0	1,9	3,3	4,7	6,1	7,5	8,9	10,3	11,7	13,1	14,4	15,8	17,5
					m <sup>3</sup> /h	0	7	12	17	22	27	32	37	42	47	52	57	63
					H = TOTAL HEAD METRES COLUMN OF WATER													
50-125/02A	0,25	105	-	○	8,1	7,8	7,4	6,7	5,7	4,3								
50-125/02	0,25	118	-	○	9,3		8,5	7,8	6,9	5,7								
50-125/03	0,37	130	-	○	11,5		10,7	10,1	9,3	8,2	6,8							
50-125/05	0,55	135	-	●	14,1		13,3	12,7	11,9	10,9	9,7	8,2						
50-160/03	0,37	127	-	○	5,7		5,5	5,3	5,0	4,6	3,9							
50-160/05	0,55	139	-	○	6,9		6,6	6,5	6,3	5,9	5,4	4,7	3,9					
50-160/07	0,75	154	-	○	8,5			8,2	8,0	7,7	7,2	6,7	6,0	5,1				
50-160/11	1,1	165	-	●	9,9			9,5	9,3	9,1	8,7	8,2	7,6	6,8	6,0	5,0		
50-200/07	0,75	165	-	○	8,9				8,2	7,7	7,0	6,3	5,4					
50-200/11A	1,1	179	-	○	10,6				9,9	9,5	8,9	8,2	7,4	6,5				
50-200/11	1,1	189	-	○	11,9					10,8	10,3	9,7	8,9	8,1	7,1			
50-200/15	1,5	199	-	●	13,3					12,3	11,8	11,2	10,5	9,7	8,7			
50-250/11	1,1	199	-	○	13,6			13,2	12,9	12,4	11,7							
50-250/15A	1,5	199	-	○	13,6			13,2	12,9	12,4	11,7							
50-250/15	1,5	210	-	○	15,2				14,6	14,1	13,5	12,7	11,7					
50-250/22A	2,2	228	-	○	18,1				17,5	17,1	16,6	15,9	15,0	14,0	12,9			
50-250/22	2,2	243	-	○	20,7				20,1	19,8	19,3	18,7	17,9	17,0	15,9			
50-250/30	3	257,5	-	●	23,4					22,5	22,1	21,5	20,8	20,0	19,0	17,9	16,5	

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

LNT-32-40-50\_4p50P-en\_a\_th

(1) STD = Cast iron/Stainless steel - B = Bronze (2) ● = Full impeller diameter - ○ = Trimmed impeller diameter

## e-LNT 65, 80 SERIES (PARALLEL OPERATION) HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			Q = DELIVERY													
		STD (1)	B	● (2)	1/s	0	4,2	6,4	8,6	10,8	13,1	15,3	17,5	19,7	21,9	24,2	26,4	29,2
					m <sup>3</sup> /h	0	15	23	31	39	47	55	63	71	79	87	95	105
H = TOTAL HEAD METRES COLUMN OF WATER																		
65-125/03	0,37	118	-	○	4,2			3,7	3,3	2,9	2,2							
65-125/05	0,55	130	-	○	5,5			5,0	4,7	4,3	3,7	3,0	2,2					
65-125/07	0,75	144	-	○	6,8			6,2	6,0	5,6	5,1	4,5	3,8	2,9	2,1			
65-125/11	1,1	148	-	●	7,7			6,9	6,6	6,1	5,5	4,9	4,1	3,2	2,3			
65-160/07	0,75	144	-	○	6,8			6,4	6,2	5,8	5,4	4,8	4,0	3,2				
65-160/11A	1,1	159	-	○	8,1			7,7	7,4	7,1	6,6	6,1	5,3	4,5	3,6			
65-160/11	1,1	170	-	○	9,2				8,5	8,2	7,7	7,1	6,4	5,6	4,7			
65-160/15	1,5	176	-	●	10,4				9,7	9,4	8,9	8,4	7,7	6,9	6,0	5,0		
65-200/11	1,1	168	-	○	9,3			9,2	8,9	8,4	7,8	7,2						
65-200/15A	1,5	168	-	○	9,3			9,2	8,9	8,4	7,8	7,2						
65-200/15	1,5	179	-	○	10,6			10,5	10,2	9,7	9,1	8,4	7,6					
65-200/22A	2,2	197	-	○	13,6				13,1	12,6	12,0	11,2	10,3	9,3				
65-200/22	2,2	209	-	●	15,2				14,8	14,4	13,8	13,0	12,1	11,1				
65-250/22A	2,2	208	-	○	14,5			14,5	14,2	13,7	13,1	12,3	11,4	10,4				
65-250/22	2,2	220	-	○	16,4			16,5	16,2	15,7	15,0	14,2	13,2	12,1	10,9			
65-250/30	3	232	-	○	18,5				18,3	17,8	17,1	16,3	15,4	14,3	13,1	11,7		
65-250/40	4	256	-	●	22,8				22,7	22,2	21,5	20,7	19,7	18,6	17,4	16,0	14,6	12,6

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			Q = DELIVERY													
		STD (1)	B	● (2)	1/s	0	5,6	10,3	15,0	19,7	24,4	29,2	33,9	38,6	43,3	48,1	52,8	58,3
					m <sup>3</sup> /h	0	20	37	54	71	88	105	122	139	156	173	190	210
H = TOTAL HEAD METRES COLUMN OF WATER																		
80-125/05	0,55	117,8	-	○	4,2			3,8	3,3	2,6								
80-125/15	1,5	148	144	●	7,4			7,0	6,7	6,1	5,3	4,3						
80-160/11B	1,1	130,7	-	○	5,6			5,0	4,5	3,5								
80-160/15C	1,5	130,7	-	○	5,6			5,0	4,5	3,5								
80-160/11A	1,1	145	144	○	6,7			6,1	5,7	4,9	3,7							
80-160/15B	1,5	145	144	○	6,7			6,1	5,7	4,9	3,7							
80-160/11	1,1	151	152	○	7,9			7,3	6,9	6,2	5,1	3,8						
80-160/15A	1,5	151	152	○	7,9			7,3	6,9	6,2	5,1	3,8						
80-160/15	1,5	162	160	○	8,8			8,1	7,8	7,1	6,2	5,0						
80-160/22A	2,2	176	176	○	10,7			10,0	9,7	9,2	8,4	7,3	6,0					
80-160/22	2,2	180	180	●	11,3			10,7	10,3	9,8	9,1	8,1	6,8	5,3				
80-200/15	1,5	165	162	○	9,2			8,9	8,3	7,3	6,1							
80-200/22A	2,2	177	177	○	10,7			10,4	9,8	9,0	7,8	6,3						
80-200/22	2,2	189	189	○	12,3			12,1	11,5	10,7	9,6	8,3	6,6					
80-200/30	3	199	199	○	13,7			13,5	13,0	12,2	11,2	9,9	8,4					
80-200/40	4	220	218	●	16,9				16,3	15,6	14,7	13,6	12,2	10,6	8,8			
80-250/30	3	195	192	○	13,3			13,3	12,8	12,0	10,9	9,5	7,8					
80-250/40	4	215	213	○	16,3			16,3	15,9	15,3	14,3	13,1	11,6	9,8				
80-250/55A	5,5	229	226	○	18,6			18,7	18,3	17,7	16,9	15,7	14,3	12,7	10,8			
80-250/55	5,5	243	240	○	21,0				20,9	20,3	19,6	18,5	17,2	15,7	13,9			
80-250/75	7,5	258	255	●	23,8				23,8	23,3	22,6	21,6	20,4	19,0	17,4	15,5		
80-315/75	7,5	278	278	○	26,2	26,1	25,7	24,9	23,9	22,6	21,0	19,1	16,7	13,8				
80-315/110	11	315	315	○	34,8	34,8	34,5	33,8	32,9	31,7	30,1	28,3	26,1	23,6	20,9	17,9		
80-315/150	15	334	334	●	39,5	39,3	39,0	38,5	37,7	36,7	35,3	33,5	31,4	29,0	26,3	23,3	19,5	

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

LNT-65-80\_4p50P-en\_b\_th

(1) STD = Cast iron/Stainless steel - B = Bronze (2) ● = Full impeller diameter - ○ = Trimmed impeller diameter

## e-LNT 100, 125, 150 SERIES (PARALLEL OPERATION) HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 4 POLES

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			Q = DELIVERY													
		STD (1)	B (1)	● (2)	l/s	0	8,3	15,6	22,8	30,0	37,2	44,4	51,7	58,9	66,1	73,3	80,6	88,9
					m <sup>3</sup> /h	0	30	56	82	108	134	160	186	212	238	264	290	320
H = TOTAL HEAD METRES COLUMN OF WATER																		
100-160/15	1,5	144	144	○	6,2			5,7	5,2	4,4	3,3							
100-160/22A	2,2	158	158	○	7,7			7,2	6,7	5,9	4,9	3,5						
100-160/22	2,2	168	168	○	8,7			8,2	7,7	6,9	5,9	4,6						
100-160/30	3	177	177	●	9,8				8,8	8,1	7,1	5,8	4,3					
100-200/30	3	181	177	○	10,9			10,5	10,2	9,6	8,6							
100-200/40	4	195	192	○	12,8			12,3	12,1	11,5	10,7	9,3						
100-200/55A	5,5	208	204	○	14,6				13,9	13,4	12,7	11,7	9,7					
100-200/55	5,5	219	216	●	16,3				15,6	15,1	14,5	13,6	12,2					
100-250/55A	5,5	214	211	○	15,7			15,5	15,3	14,7	13,5	11,7						
100-250/55	5,5	227	224	○	17,2			17,1	17,0	16,7	15,9	14,5	12,6					
100-250/75	7,5	241	238	○	20,1				19,7	19,4	18,7	17,5	15,8	13,5				
100-250/110	11	259	256	●	23,3				23,0	22,8	22,3	21,5	20,1	18,2	15,9			
100-315/110	11	274	274	○	26,3			25,9	25,2	24,2	22,8	21,1	19,1	16,8	14,4			
100-315/150	15	304	304	○	32,6			32,4	32,0	31,2	30,0	28,4	26,4	24,1	21,6	18,8		
100-315/185	18,5	321	321	○	36,2			36,2	35,9	35,3	34,2	32,7	30,9	28,7	26,2	23,4	20,2	
100-315/220	22	334	334	●	39,9			39,8	39,4	38,7	37,7	36,3	34,6	32,4	30,0	27,1	24,0	20,1

PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			Q = DELIVERY													
		STD (1)	B (1)	● (2)	l/s	0	9,4	20,6	31,7	42,8	53,9	65,0	76,1	87,2	98,3	109,4	120,6	131,9
					m <sup>3</sup> /h	0	34	74	114	154	194	234	274	314	354	394	434	475
H = TOTAL HEAD METRES COLUMN OF WATER																		
125-160/22	2,2	148	148	○	5,9	5,9	5,9	5,5	4,7	3,5								
125-160/30	3	167	167	○	8,3			8,2	7,9	7,1	5,8	4,2						
125-160/40	4	184	184	●	10,4			10,3	10,0	9,3	8,2	6,6						
125-200/55	5,5	202	202	○	13,1			12,8	12,5	11,9	10,9	9,3	7,3	4,8				
125-200/75	7,5	227	227	●	17,0			16,8	16,5	16,0	15,1	13,8	12,2	10,2	8,1			
125-250/75	7,5	230	230	○	17,2			17,1	16,7	16,0	14,8	13,2	11,2	8,9				
125-250/110	11	259	259	●	22,1			22,0	21,7	21,1	20,1	18,7	16,8	14,6	12,1			
125-315/150	15	276	276	○	25,9			25,8	25,4	24,8	23,9	22,8	21,3	19,4	17,0	14,1		
125-315/185	18,5	291	291	○	28,9			28,6	28,3	27,8	27,0	26,0	24,6	22,7	20,5	17,7		
125-315/220	22	308	308	○	32,6			32,3	31,9	31,4	30,7	29,7	28,5	26,8	24,9	22,5	19,9	
125-315/300	30	334	334	●	39,3			38,8	38,5	38,0	37,4	36,6	35,5	34,1	32,4	30,3	28,0	25,2

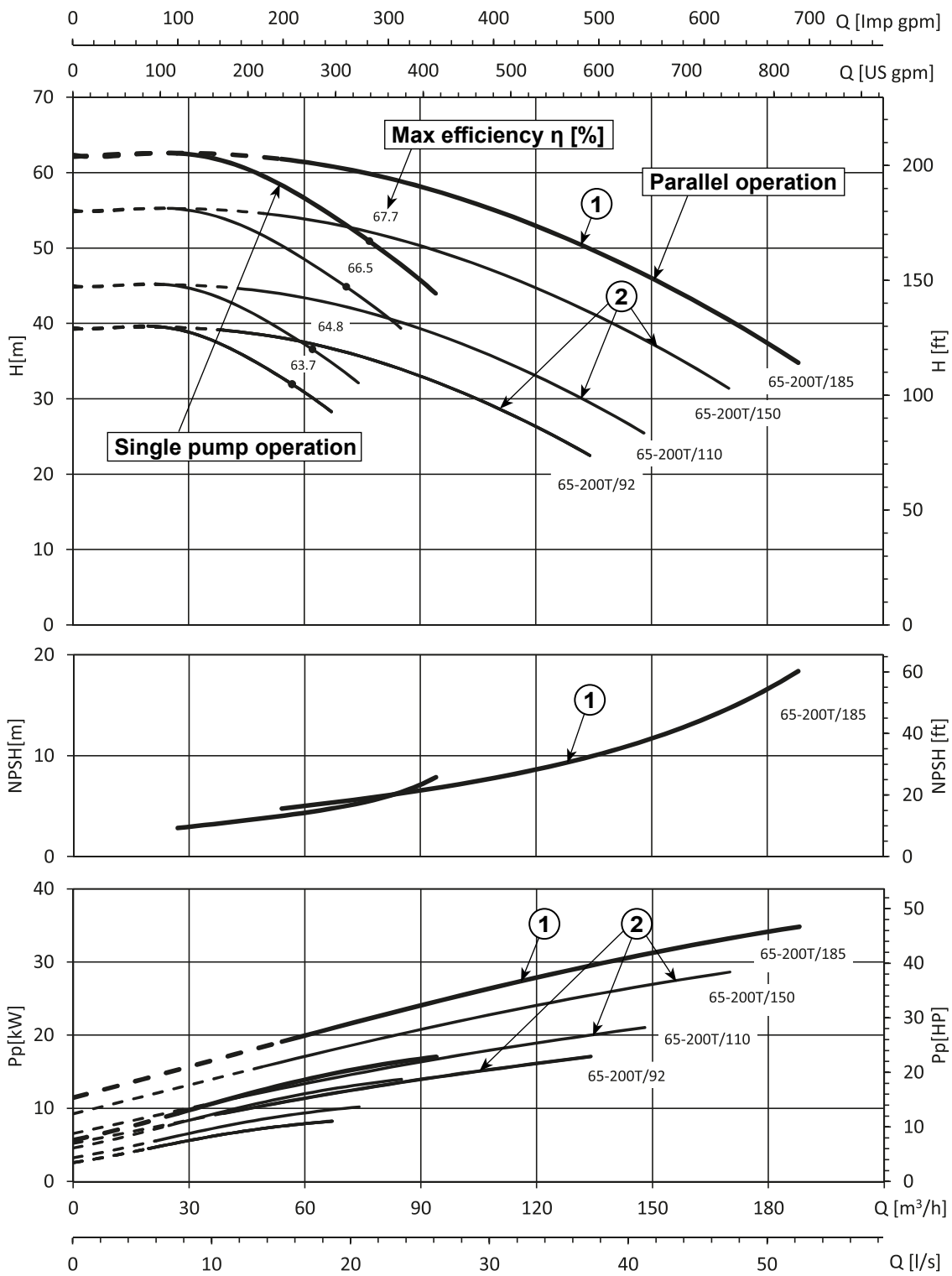
PUMP TYPE	P <sub>N</sub> kW	Ø Impeller (mm)			Q = DELIVERY													
		STD (1)	B (1)	● (2)	l/s	0	20,6	36,1	51,7	67,2	82,8	98,3	113,9	129,4	145,0	160,6	176,1	192,8
					m <sup>3</sup> /h	0	74	130	186	242	298	354	410	466	522	578	634	694
H = TOTAL HEAD METRES COLUMN OF WATER																		
150-200/55	5,5	175	175	○	9,2	9,2	9,1	8,7	8,0	7,0	5,5	3,8						
150-200/75	7,5	195	195	○	12,0			11,5	11,1	10,4	9,5	8,2	6,7					
150-200/110	11	220	220	●	15,6			15,0	14,5	13,9	13,1	12,1	10,7	9,0	7,0			
150-250/110	11	225	225	○	16,4			16,0	15,7	15,0	14,0	12,6	10,8	8,7				
150-250/150	15	249	249	●	20,6			20,1	19,7	19,1	18,1	16,8	15,2	13,2	10,9			
150-315/185	18,5	272	272	○	25,0			24,7	24,2	23,4	22,1	20,5	18,4	16,0	13,4			
150-315/220	22	285	285	○	27,8			27,6	27,1	26,4	25,2	23,7	21,8	19,5	16,8	14,0		
150-315/300	30	308	308	○	33,1			32,9	32,6	32,0	31,0	29,7	27,9	25,8	23,3	20,5	17,7	
150-315/370	37	322	322	●	36,6			36,3	36,1	35,5	34,6	33,4	31,7	29,7	27,3	24,6	21,6	18,4

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

LNT-100-125-150\_4p50P-en\_a\_th

(1) STD = Cast iron/Stainless steel - B = Bronze (2) ● = Full impeller diameter - ○ = Trimmed impeller diameter

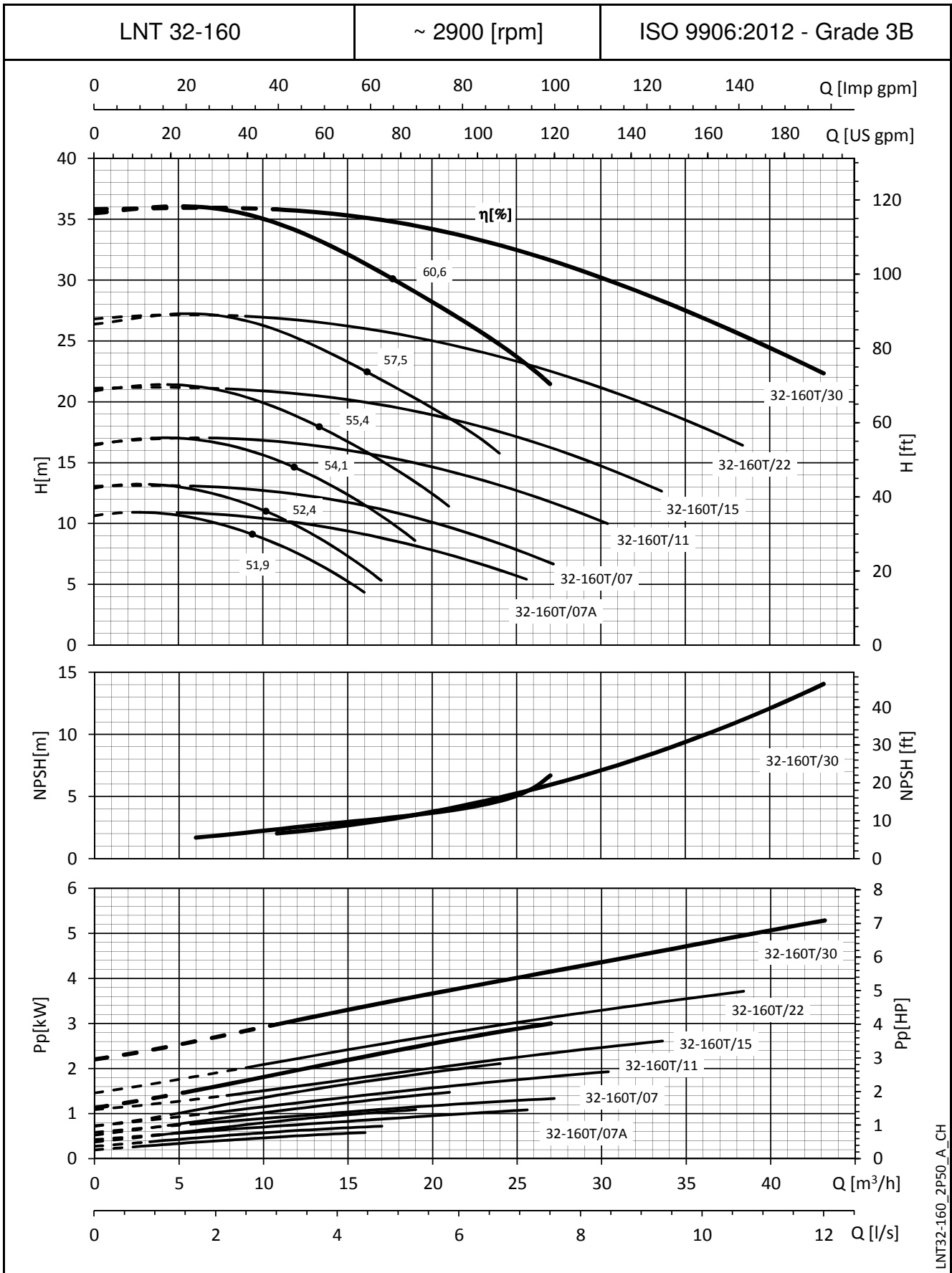
**e-LNT SERIES**  
**IDENTIFICATION OF GRAPH**



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

**e-LNT SERIES**

**OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES**

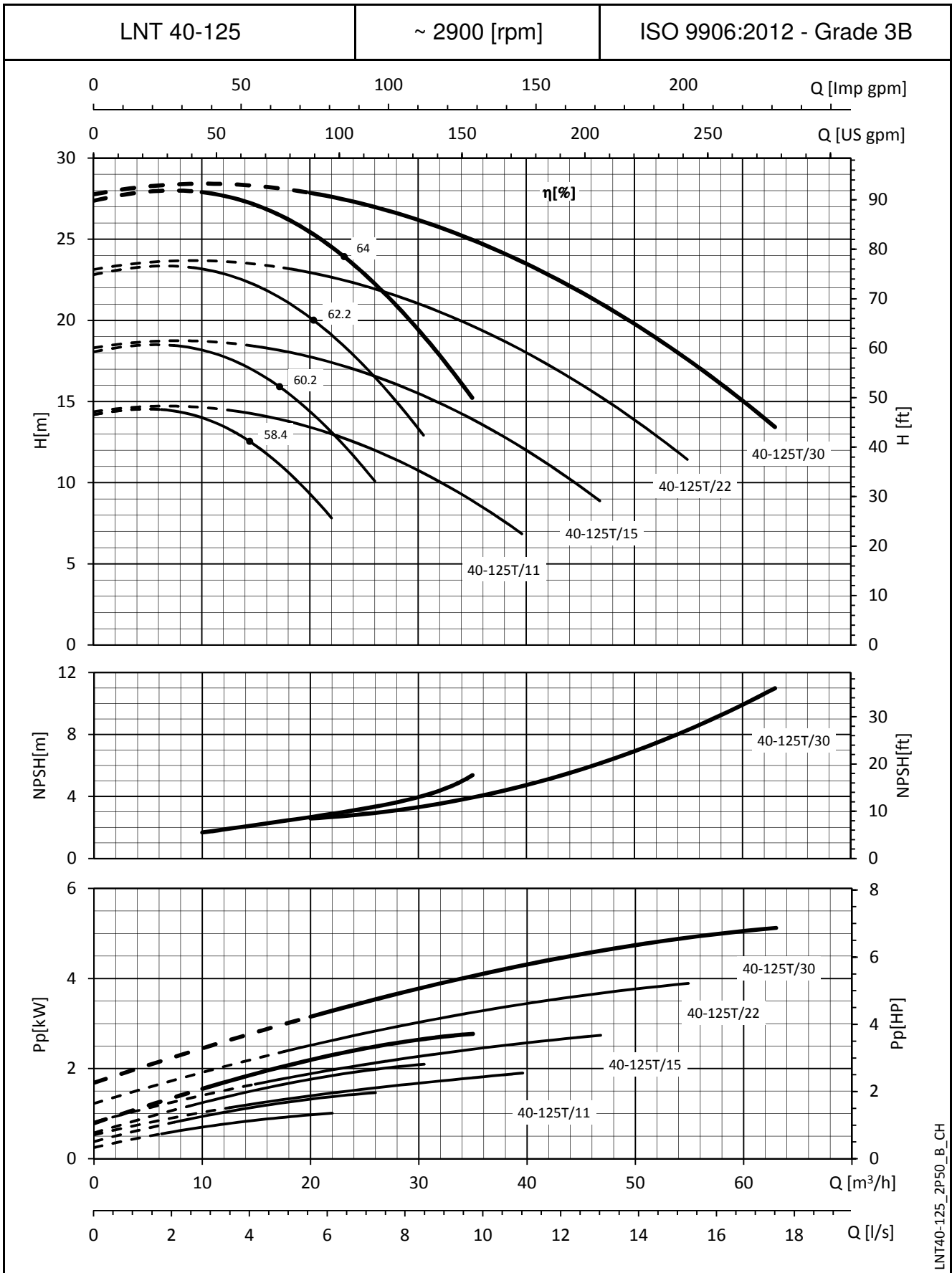


LNT32-160\_2P50\_A\_CH

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 50 Hz, 2 POLES**

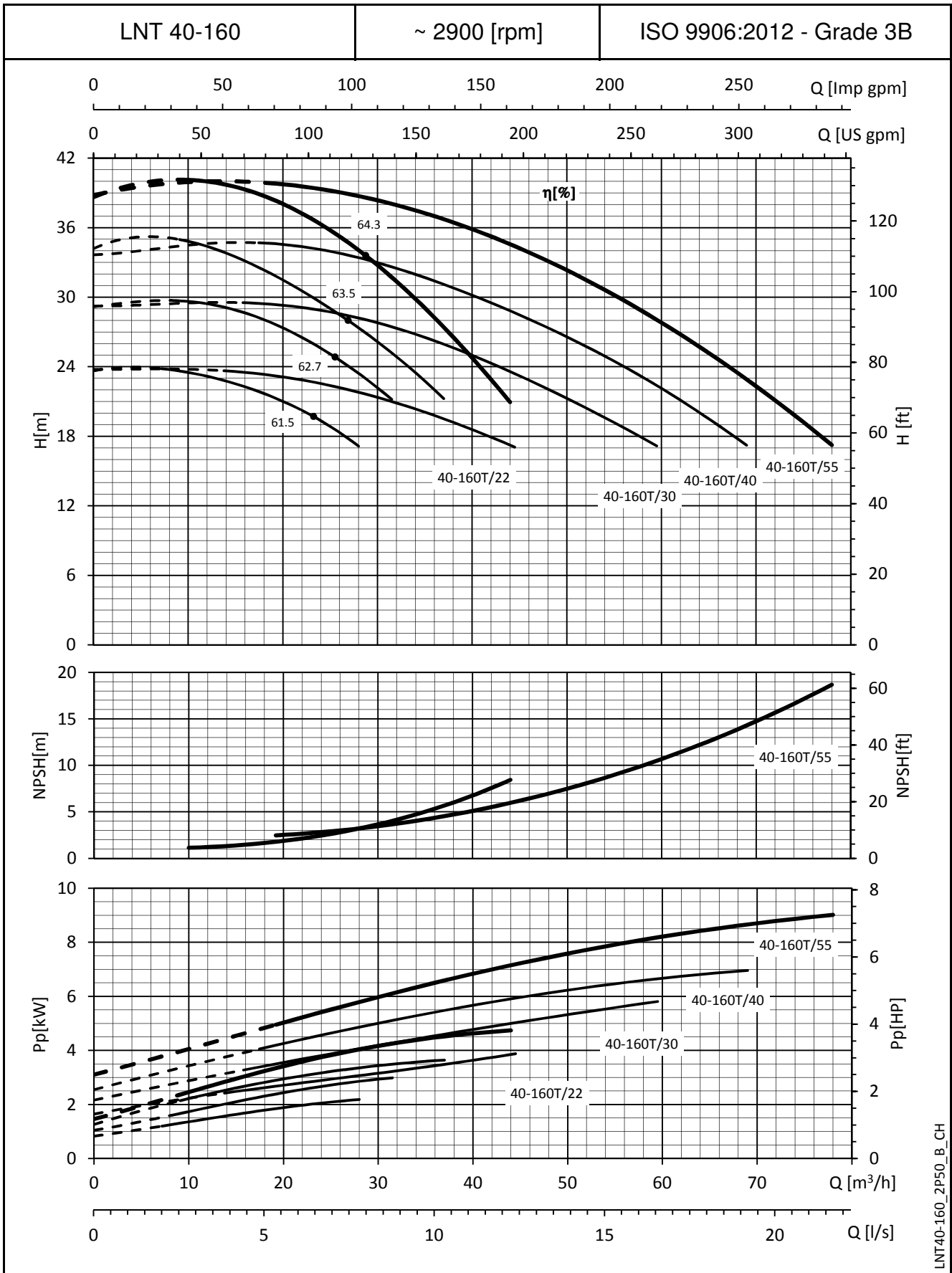


The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.  
 These performances are valid for liquids with density  $\rho = 1,0 \text{ Kg/dm}^3$  and kinematic viscosity  $\nu = 1 \text{ mm}^2/\text{sec}$ .



**e-LNT SERIES**

**OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES**

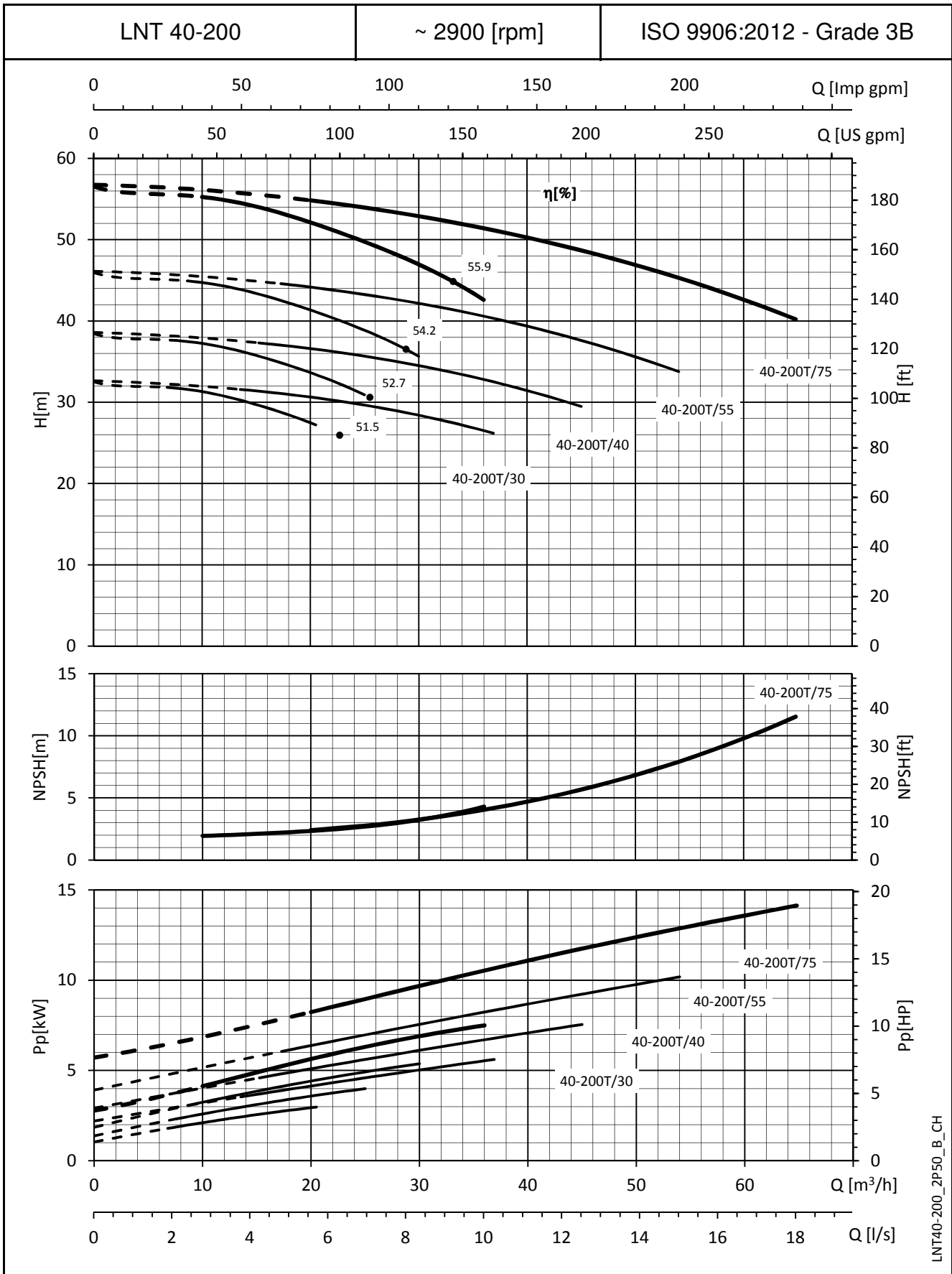


LNT40-160\_2P50\_B\_CH

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 50 Hz, 2 POLES**

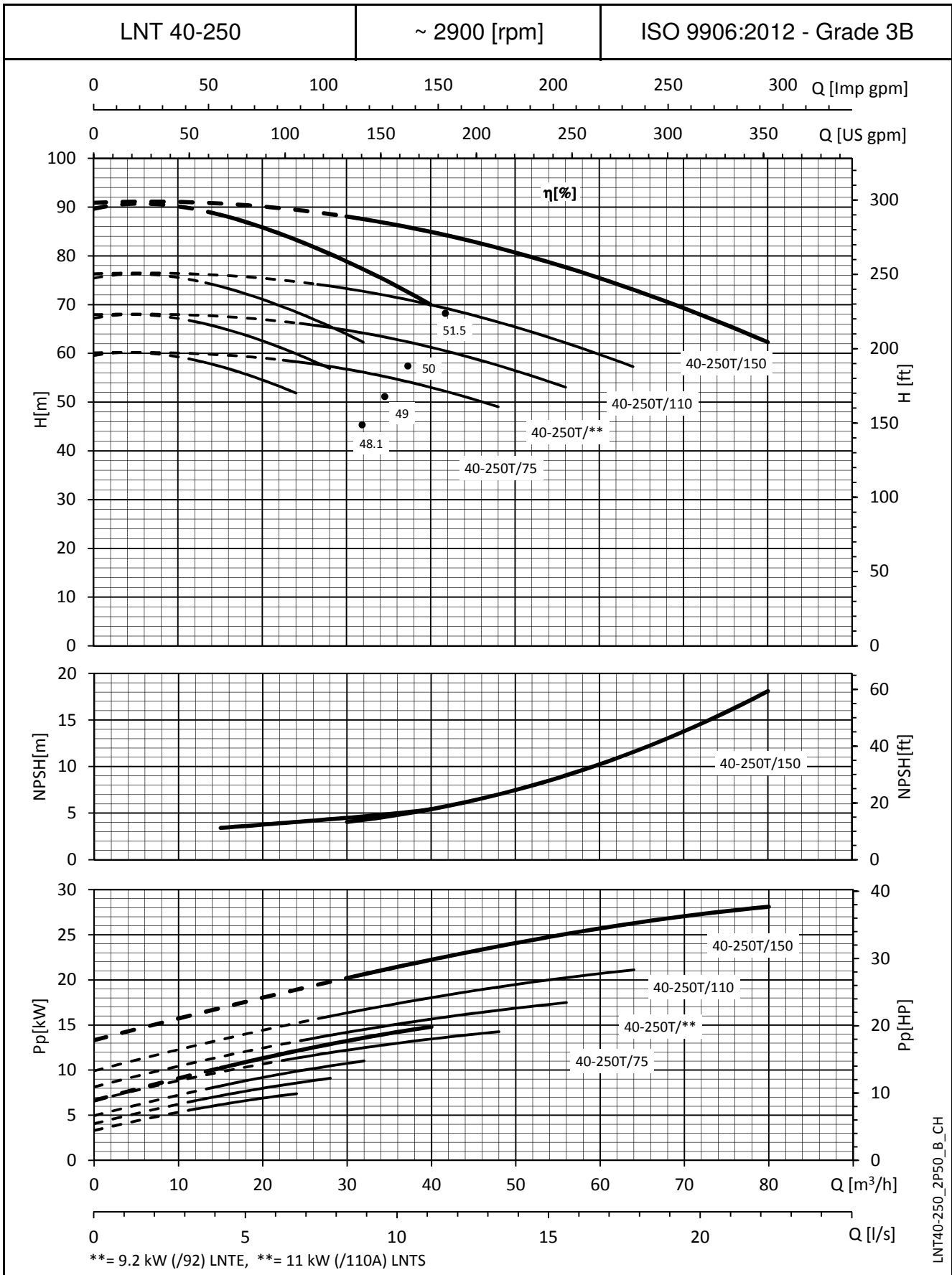


LNT40-200\_2P50\_B\_CH

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**

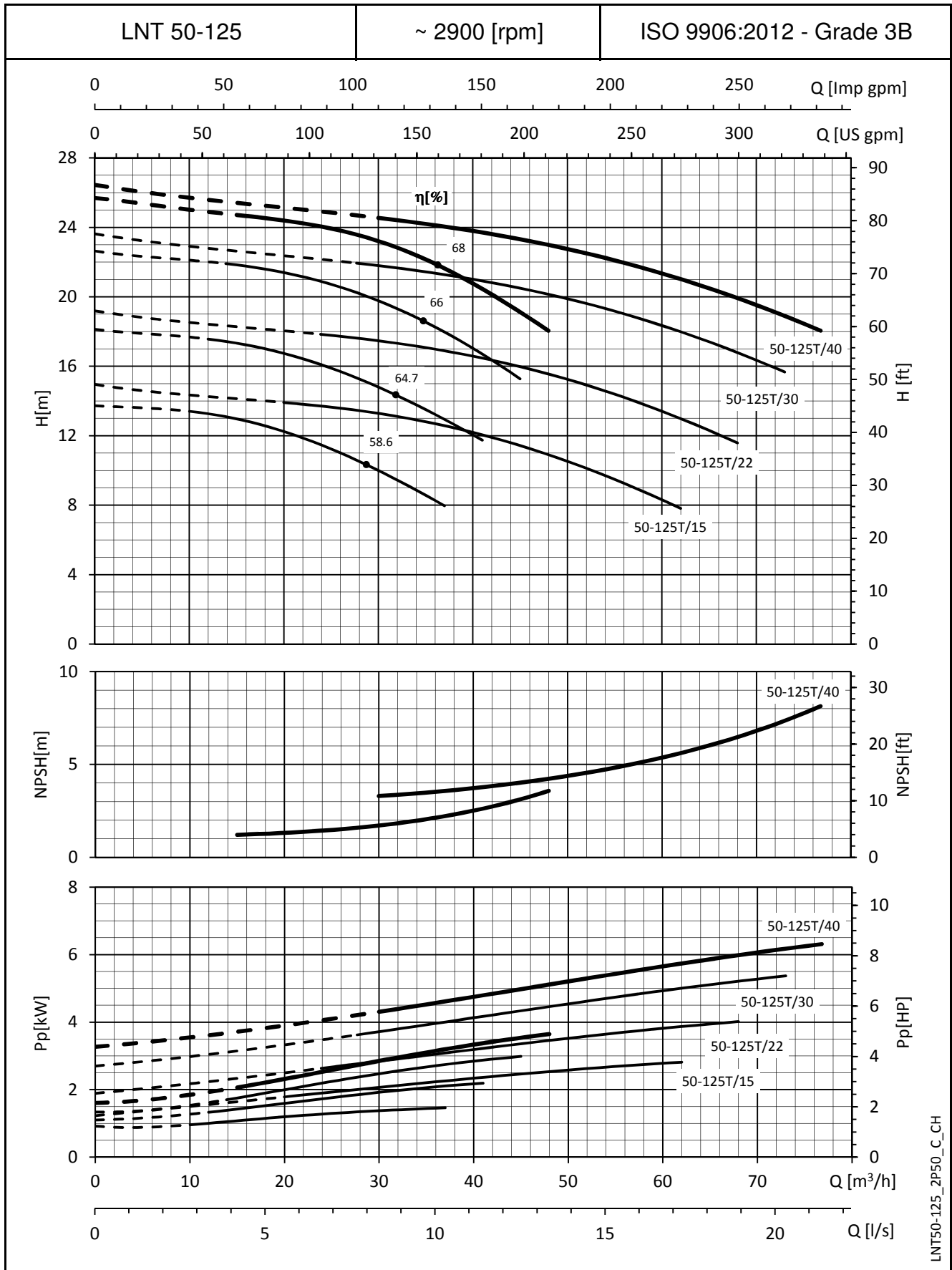
**OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES**



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**

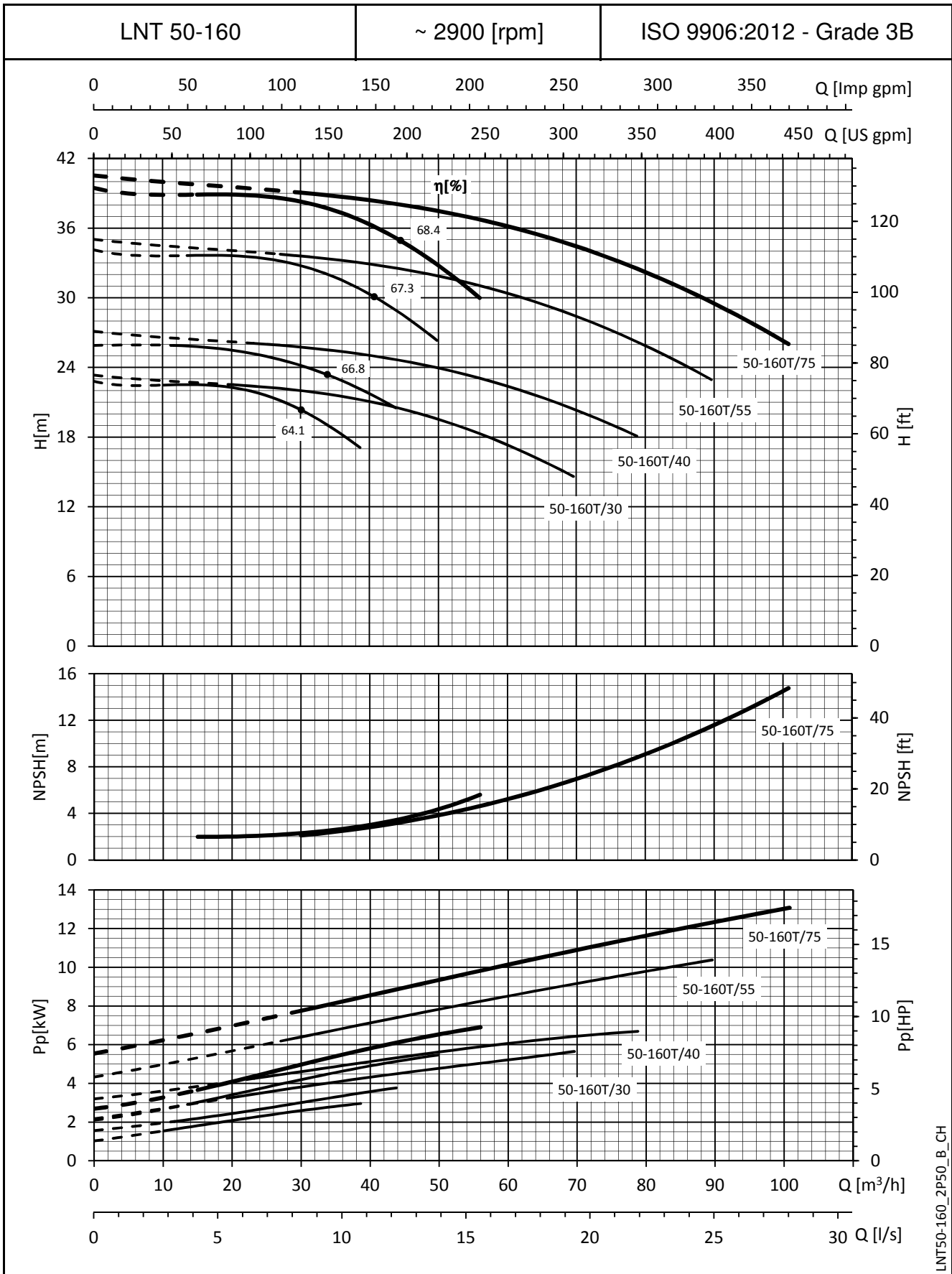
**OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES**



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**

**OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES**

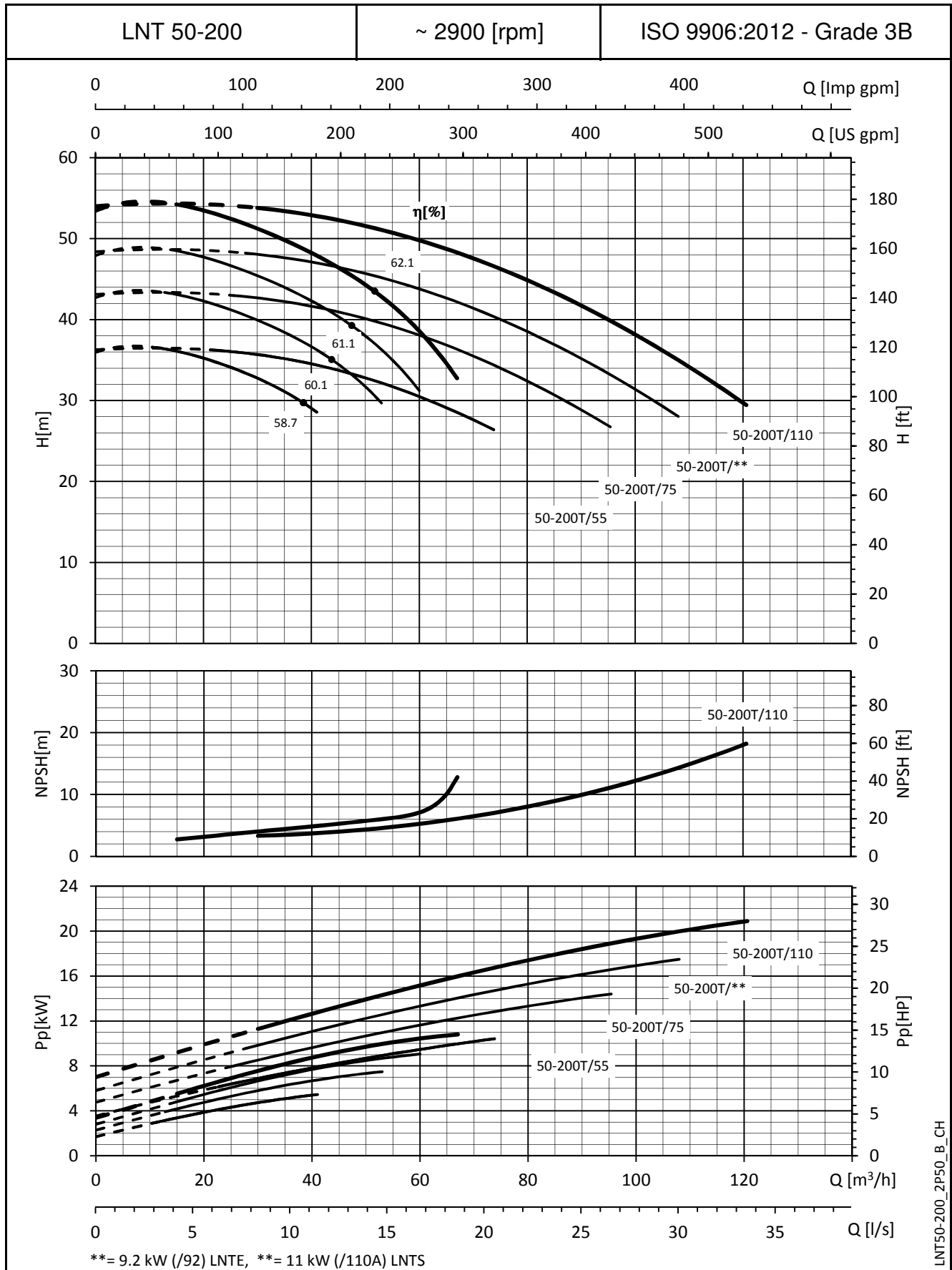


LNT50-160\_2P50\_B\_CH

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**

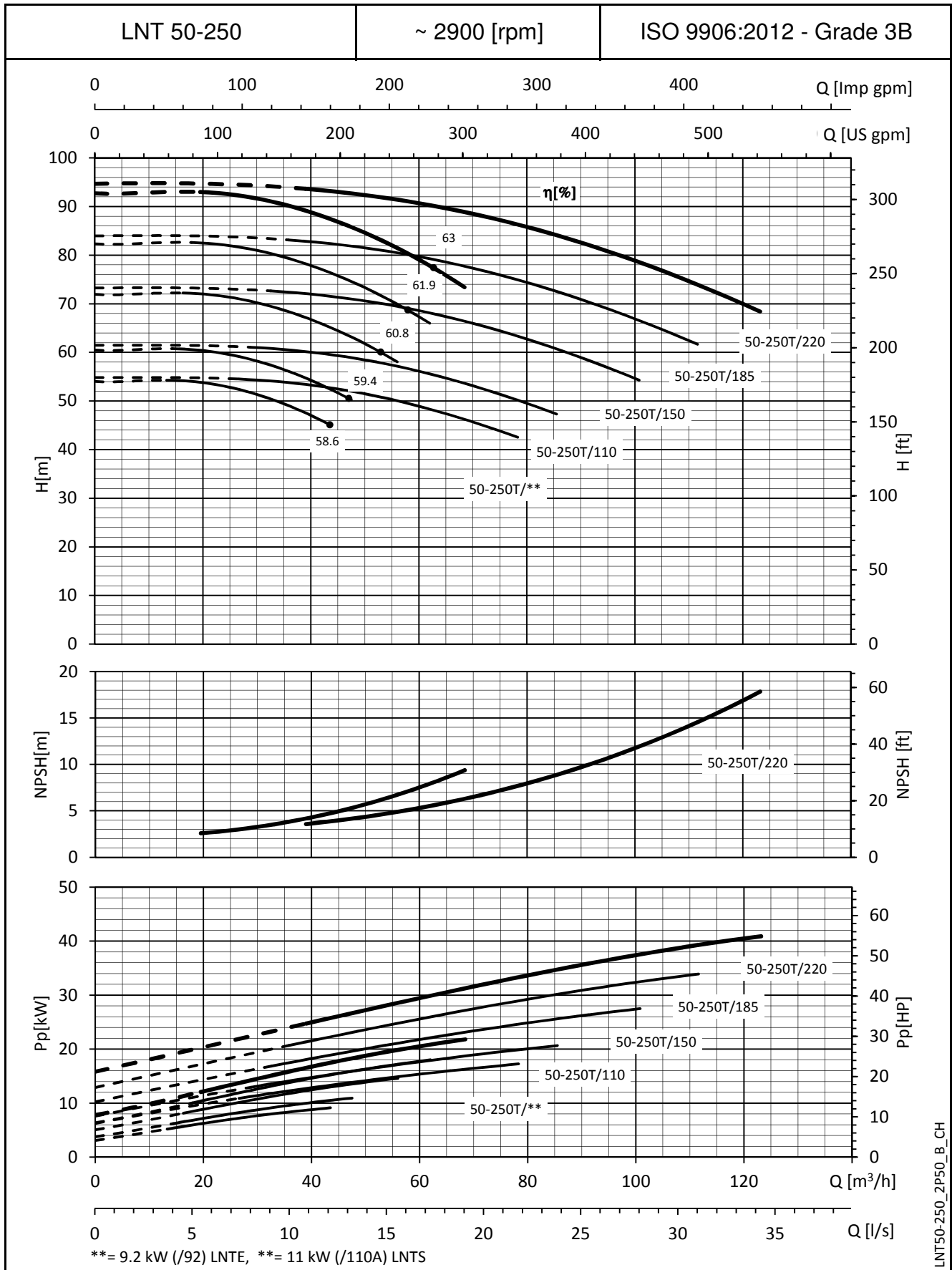
**OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES**



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**

**OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES**

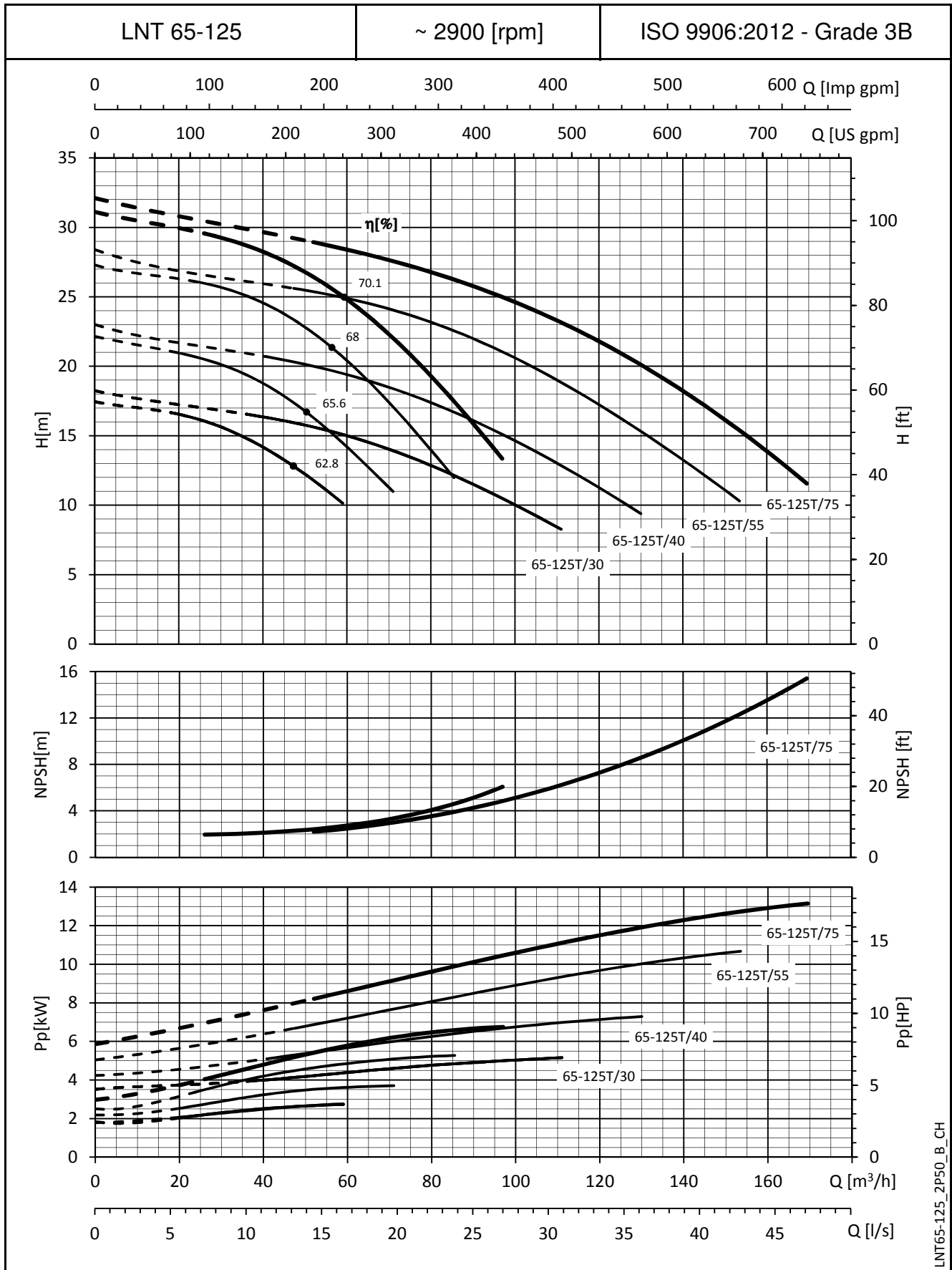


LNT50-250\_2P50\_B\_CH

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 50 Hz, 2 POLES**

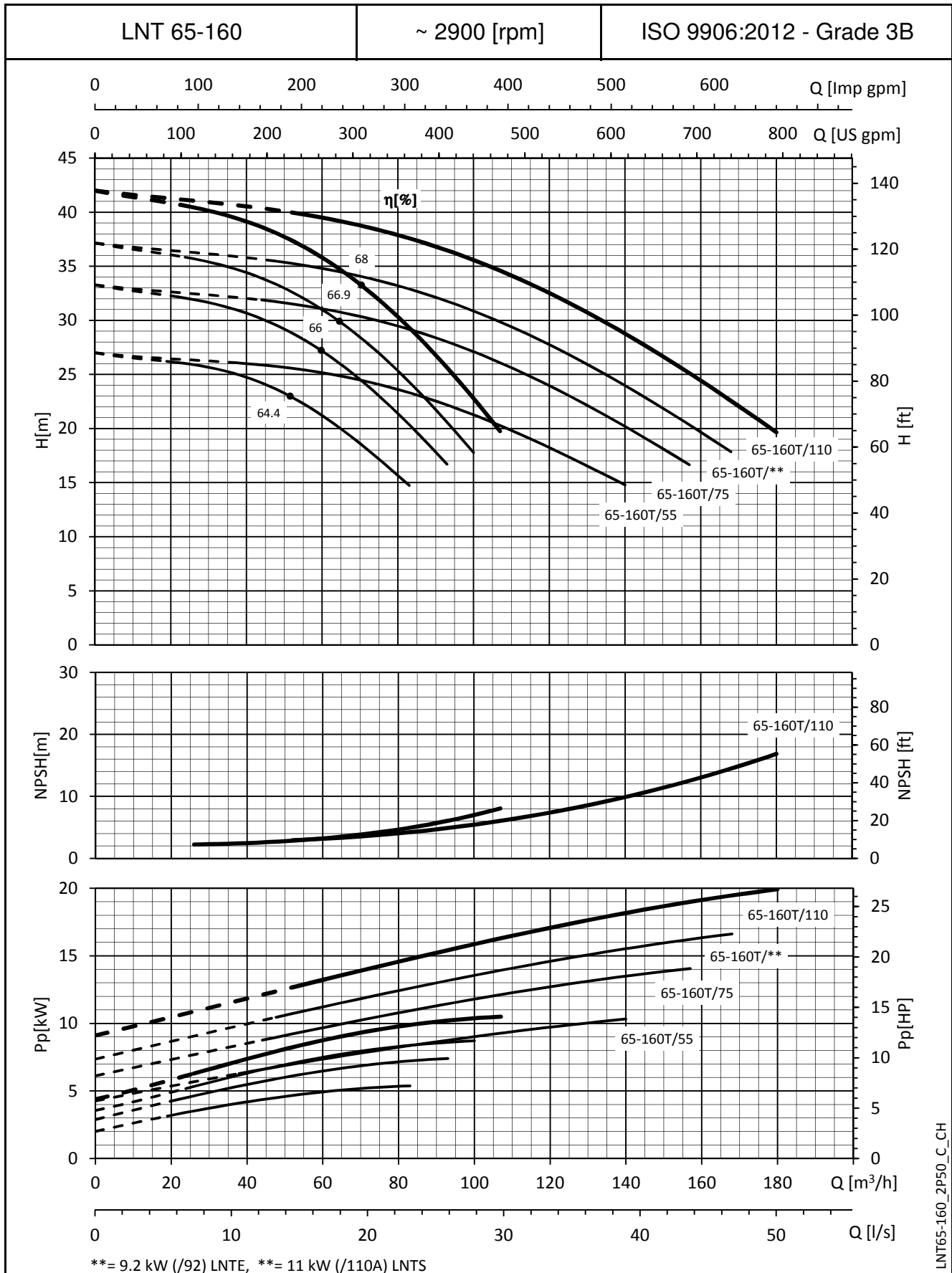


The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.  
 These performances are valid for liquids with density  $\rho = 1,0 \text{ Kg/dm}^3$  and kinematic viscosity  $\nu = 1 \text{ mm}^2/\text{sec}$ .



**e-LNT SERIES**

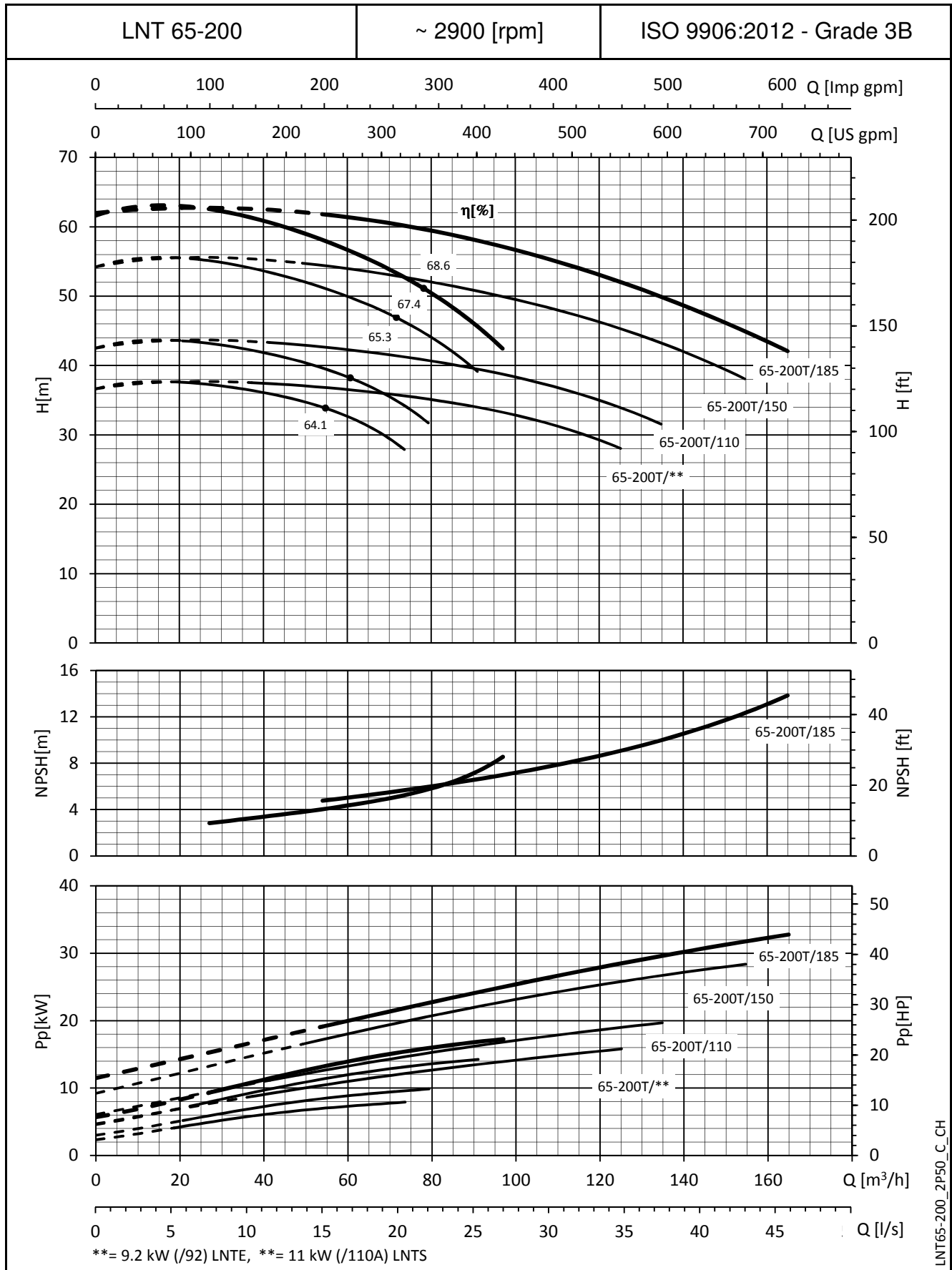
**OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES**



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**

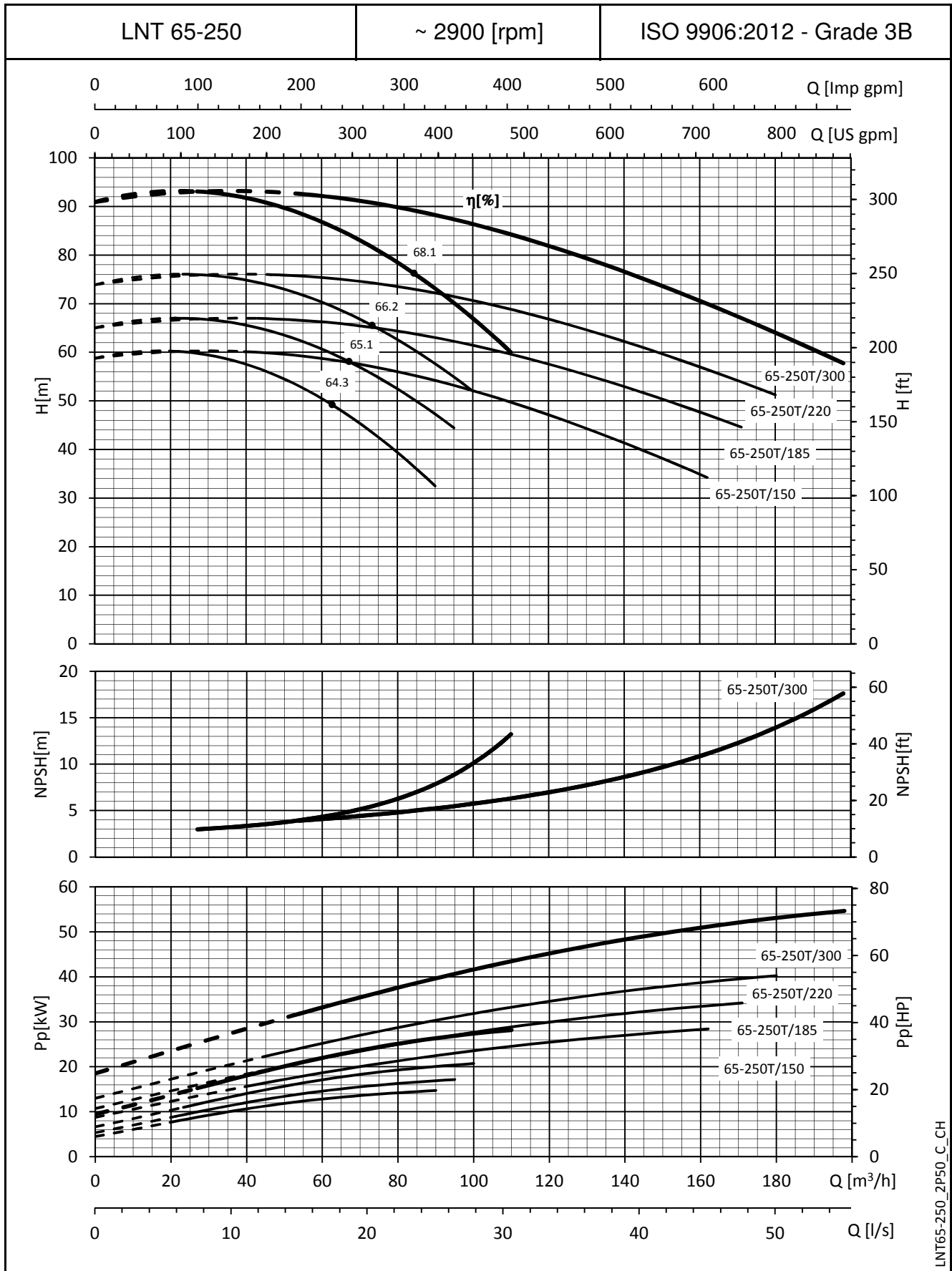
**OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES**



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**

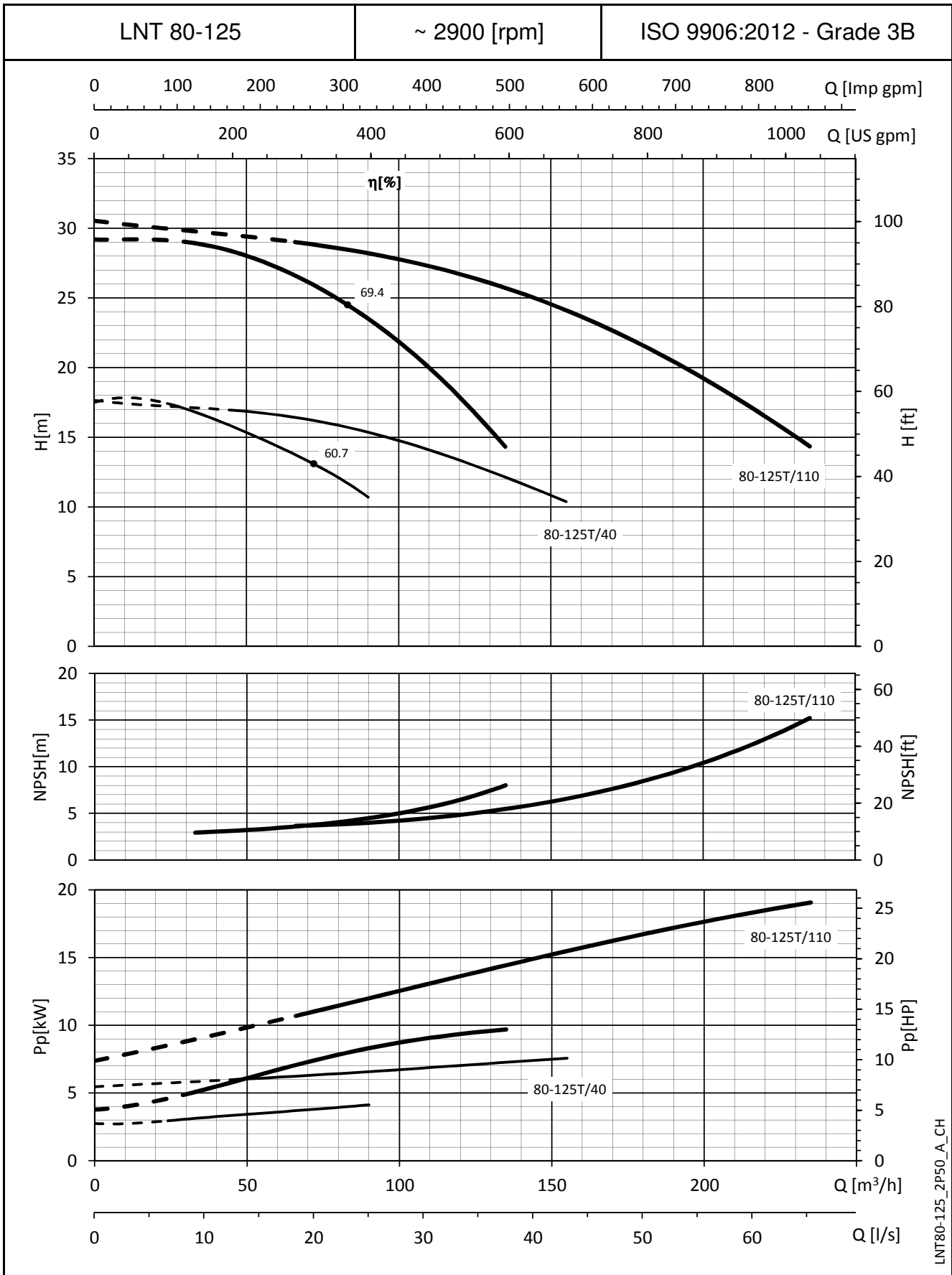
**OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES**



LNT65-250\_2P50\_C\_CH

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 50 Hz, 2 POLES**

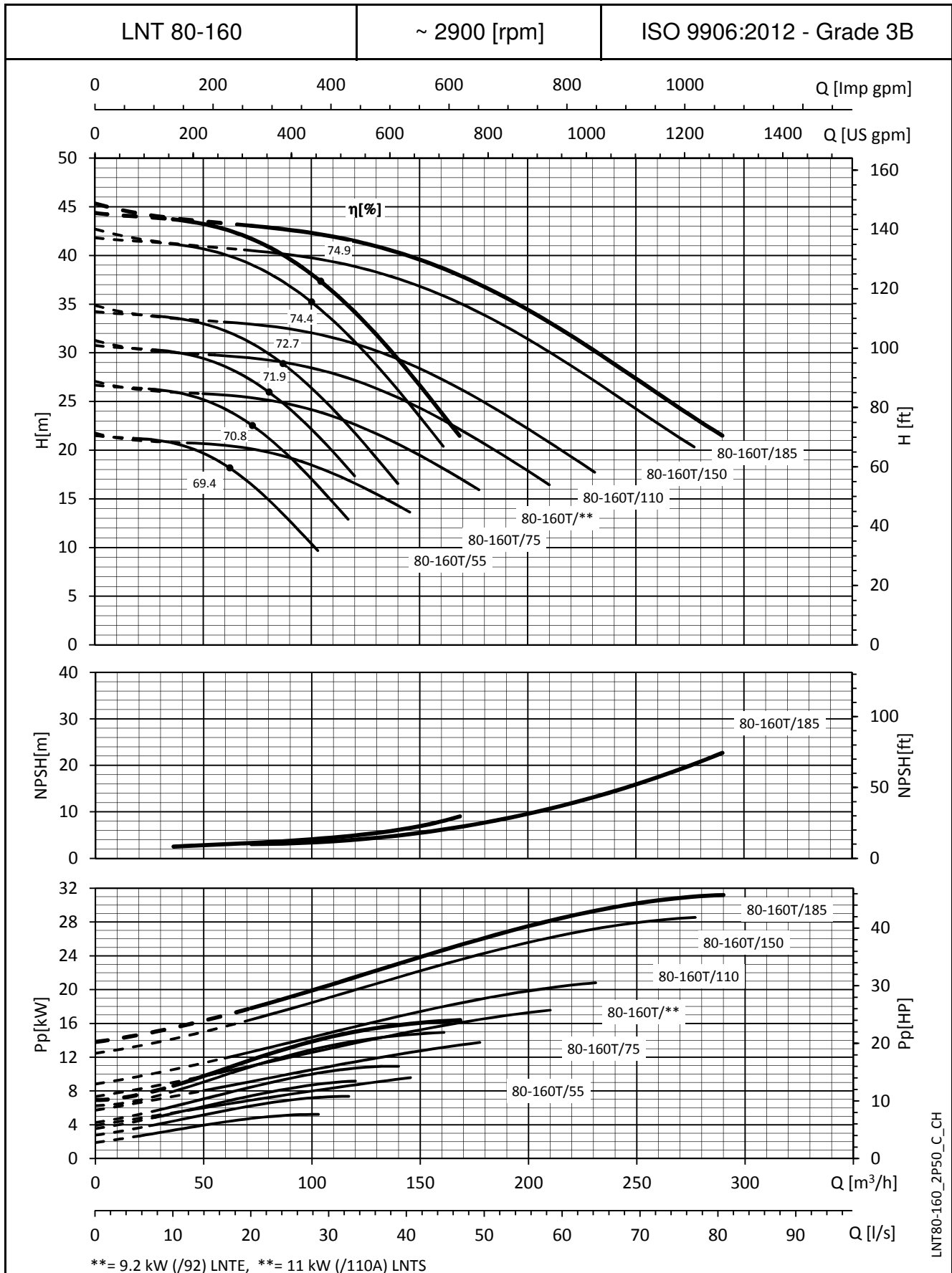


LNT80-125\_2P50\_A\_CH

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**

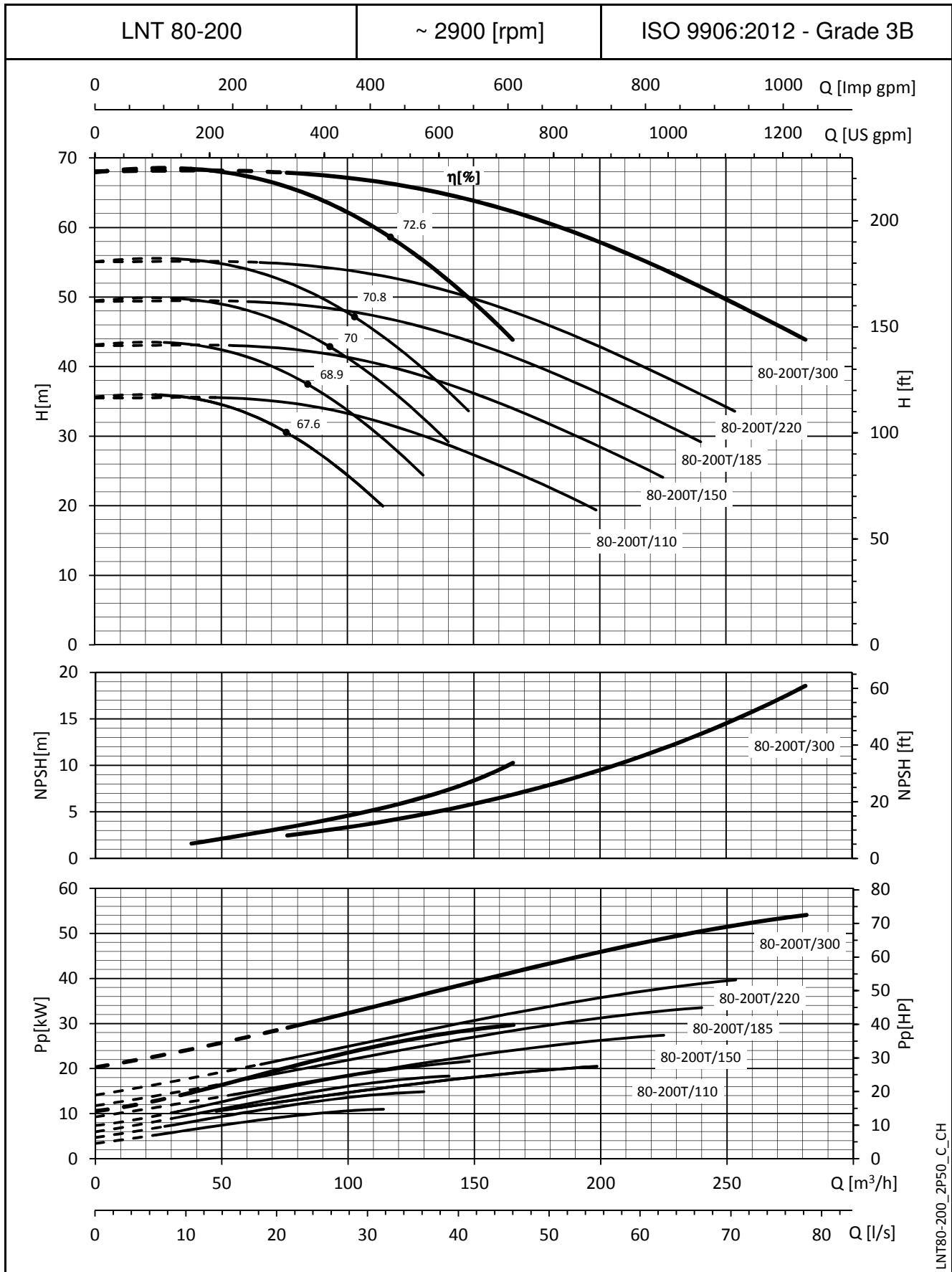
**OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES**



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**

**OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES**

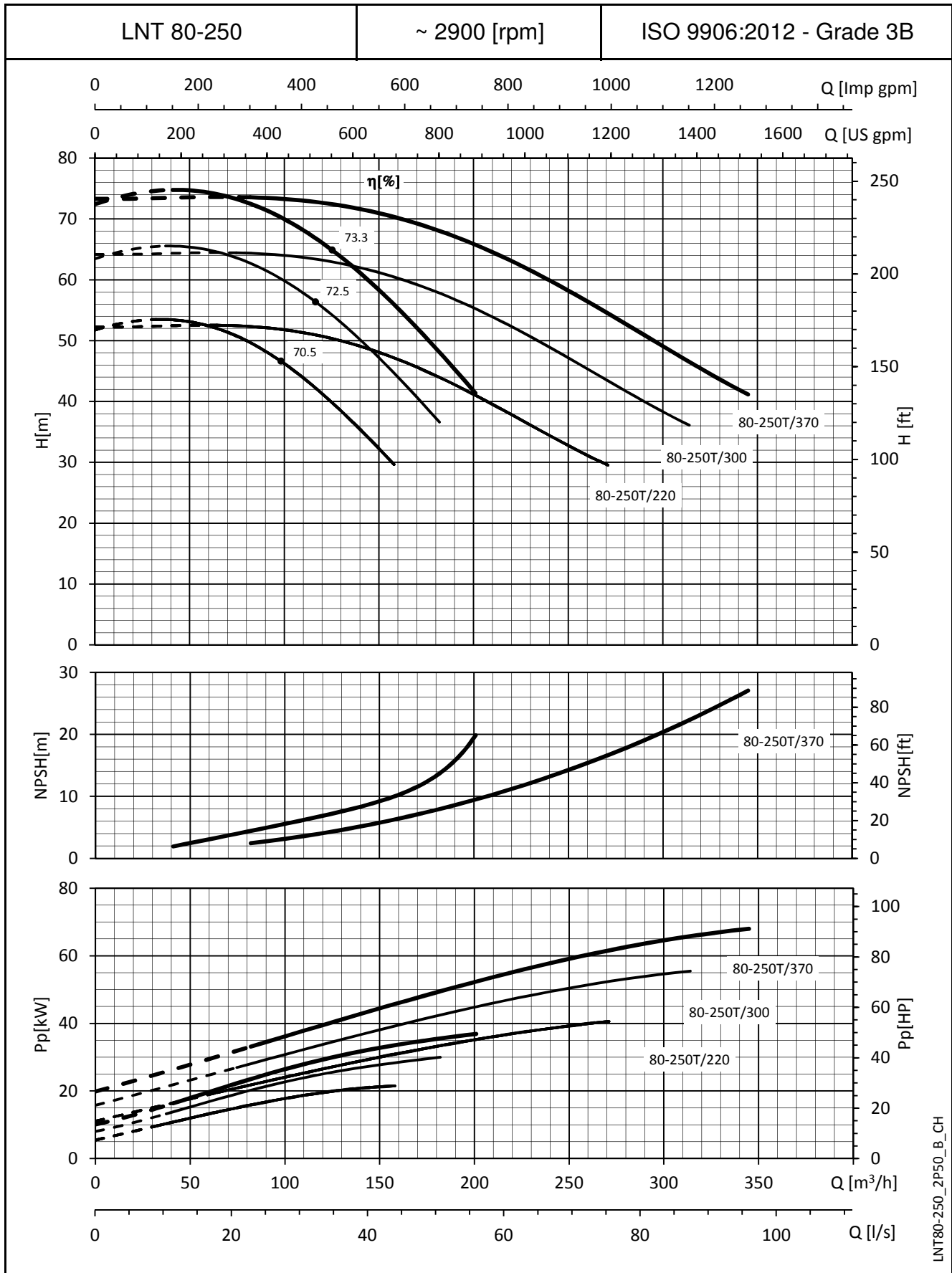


LNT80-200\_2P50\_C\_CH

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 50 Hz, 2 POLES**

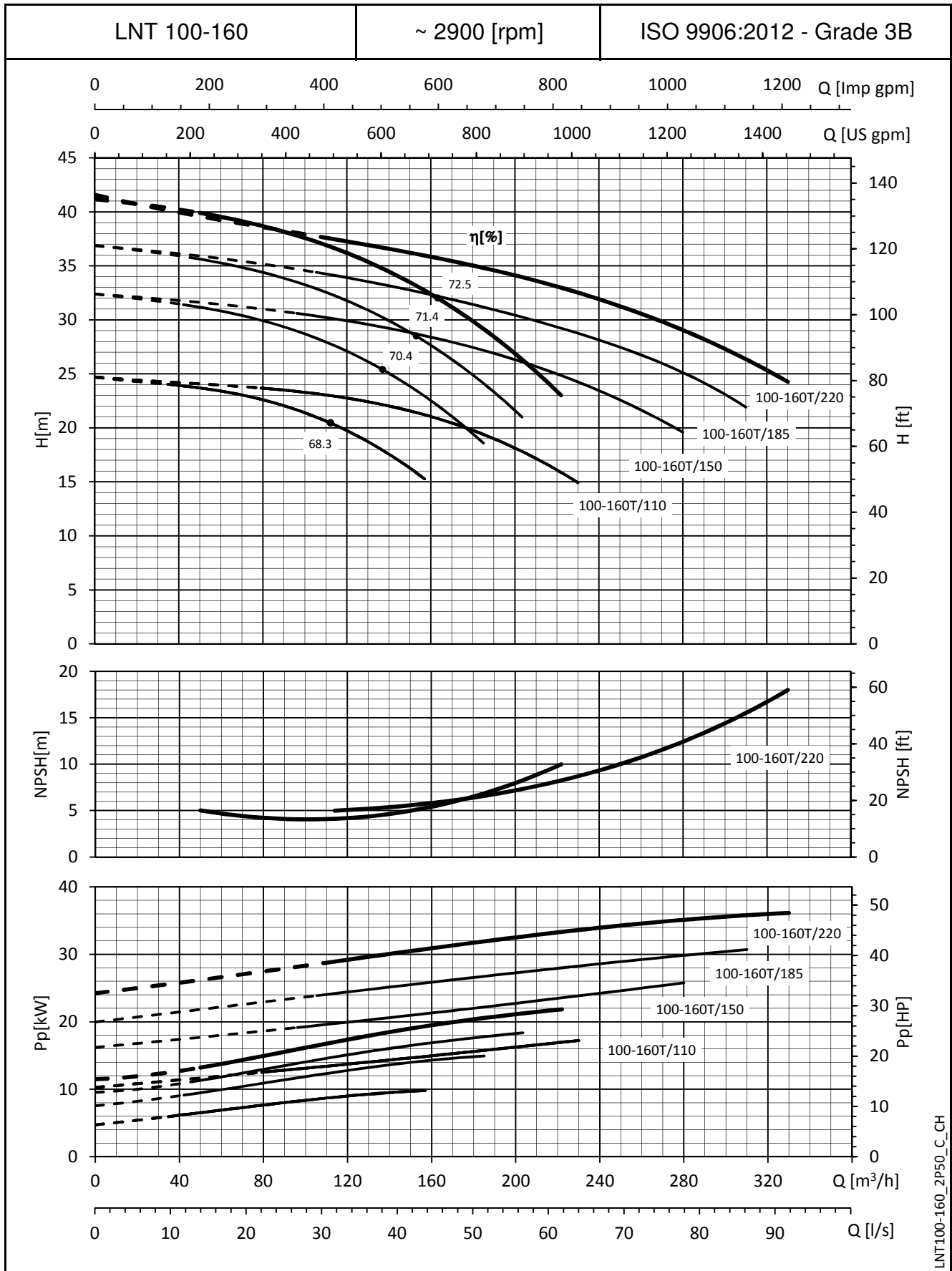


LNT80-250\_2P50\_B\_CH

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 50 Hz, 2 POLES**



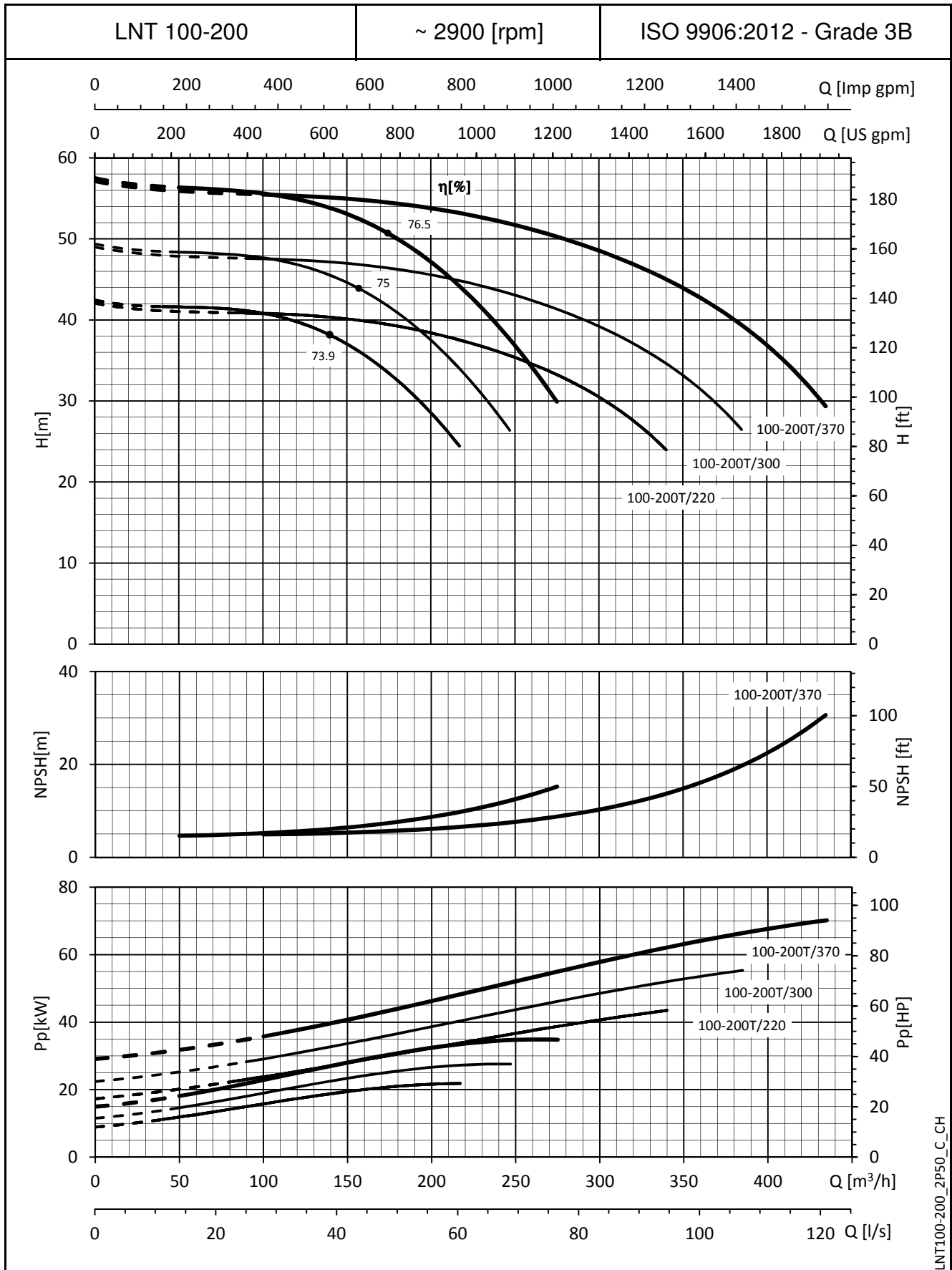
LNT100-160\_2P50\_C\_CH

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 50 Hz, 2 POLES**

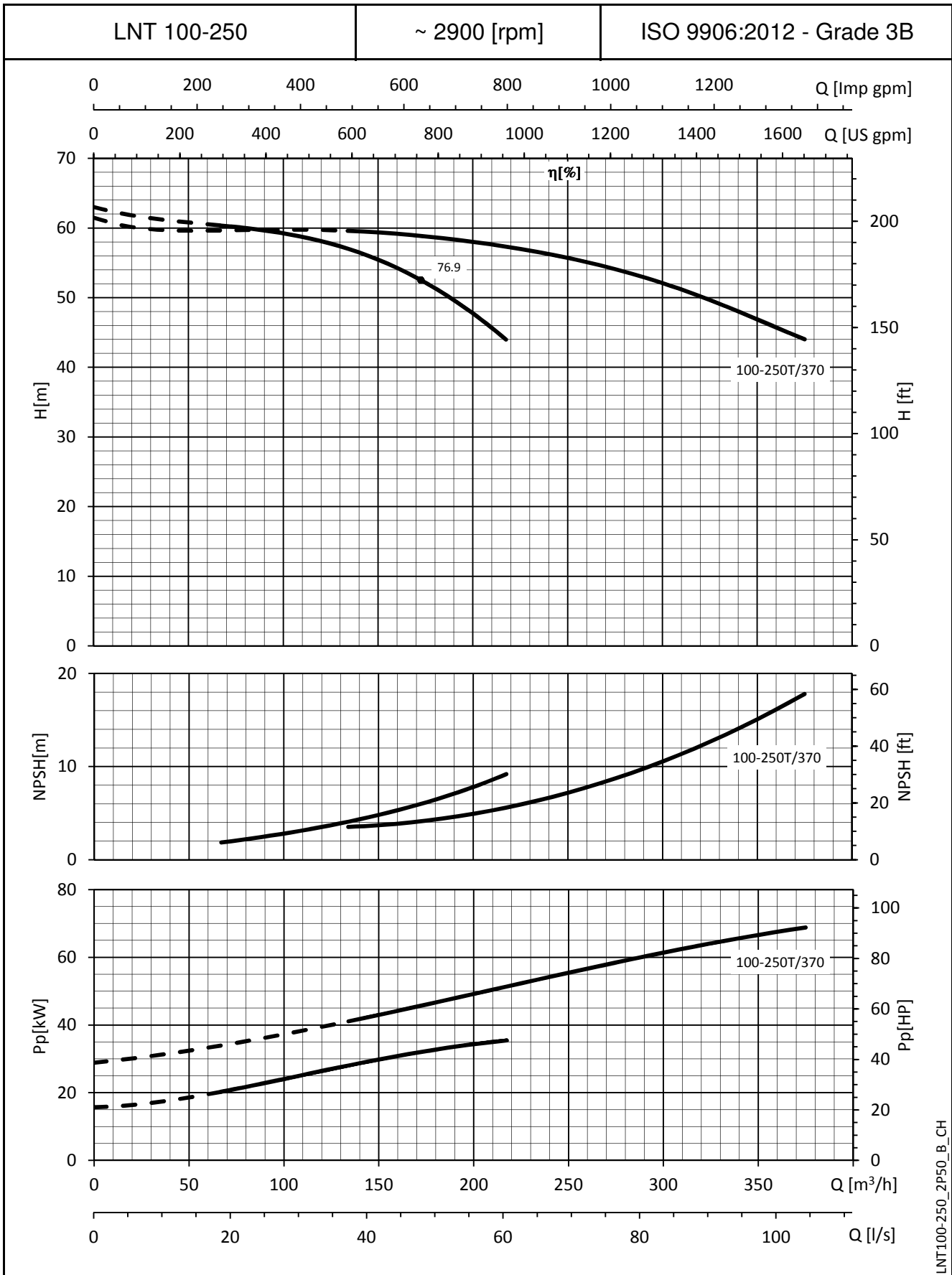


LNT100-200\_2P50\_C\_CH

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 50 Hz, 2 POLES**

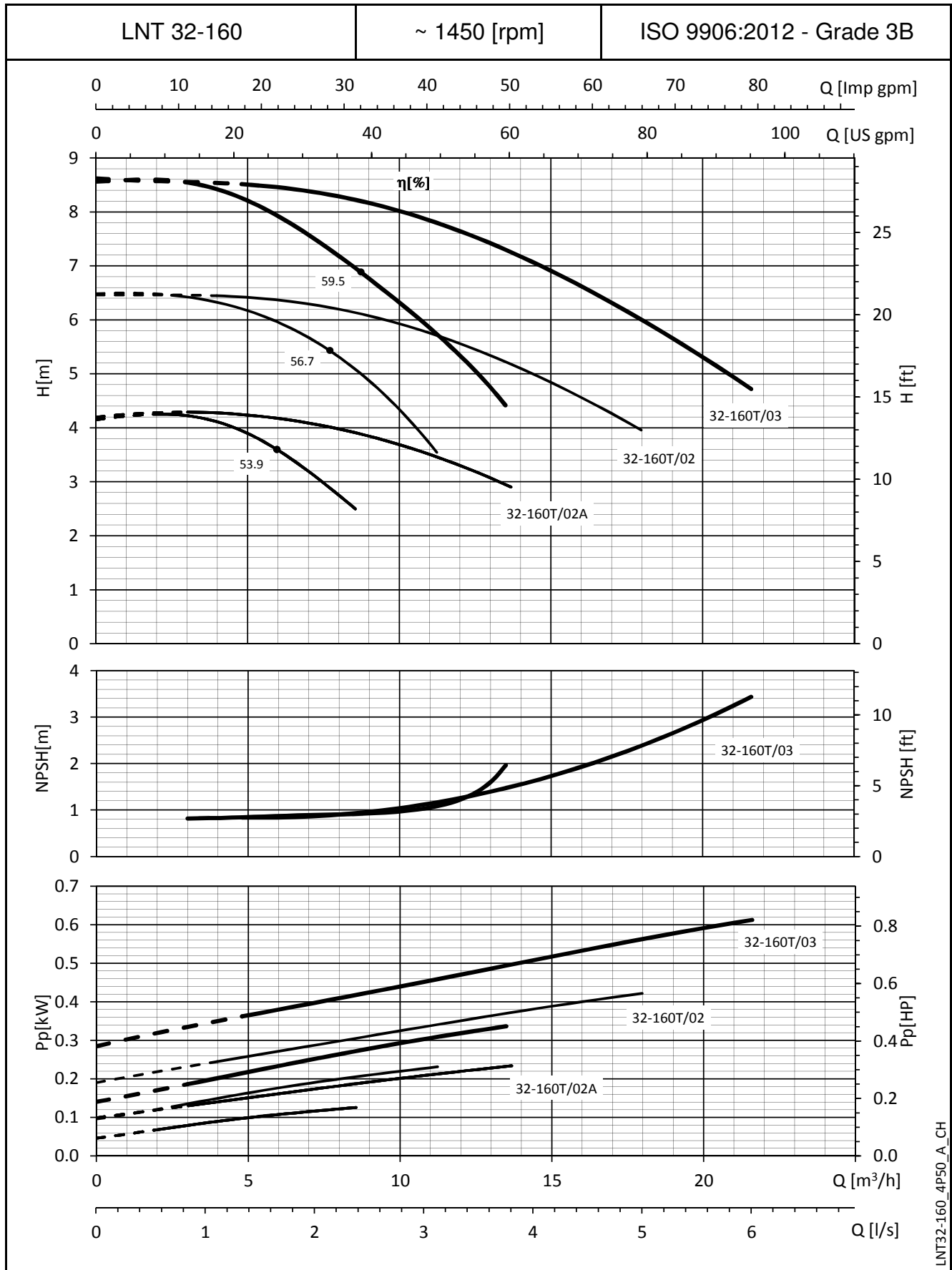


LNT100-250\_2P50\_B\_CH

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 50 Hz, 4 POLES**

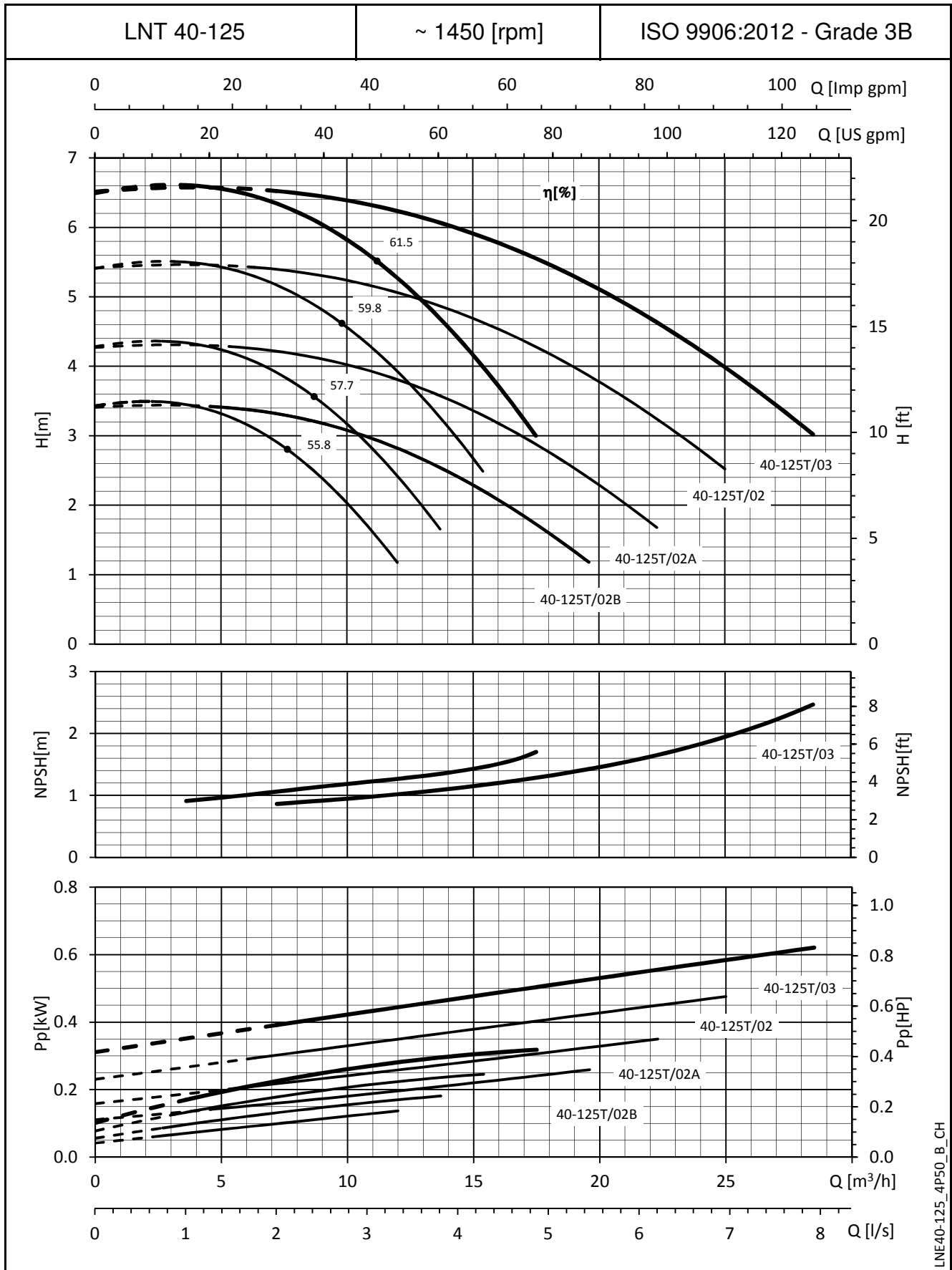


LNT32-160\_4P50\_A\_CH

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 50 Hz, 4 POLES**

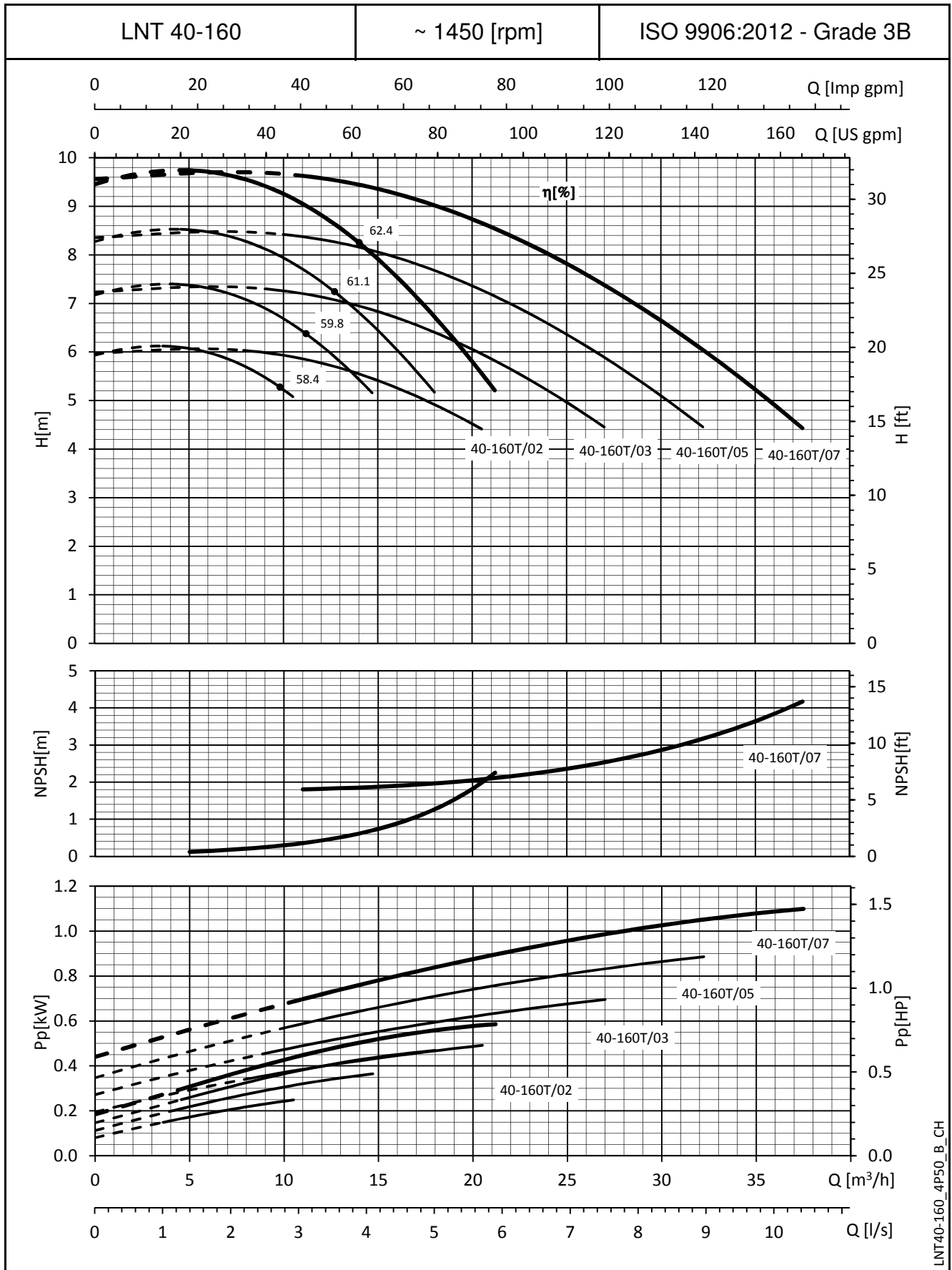


LINE40-125\_4P50\_B\_CH

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 50 Hz, 4 POLES**

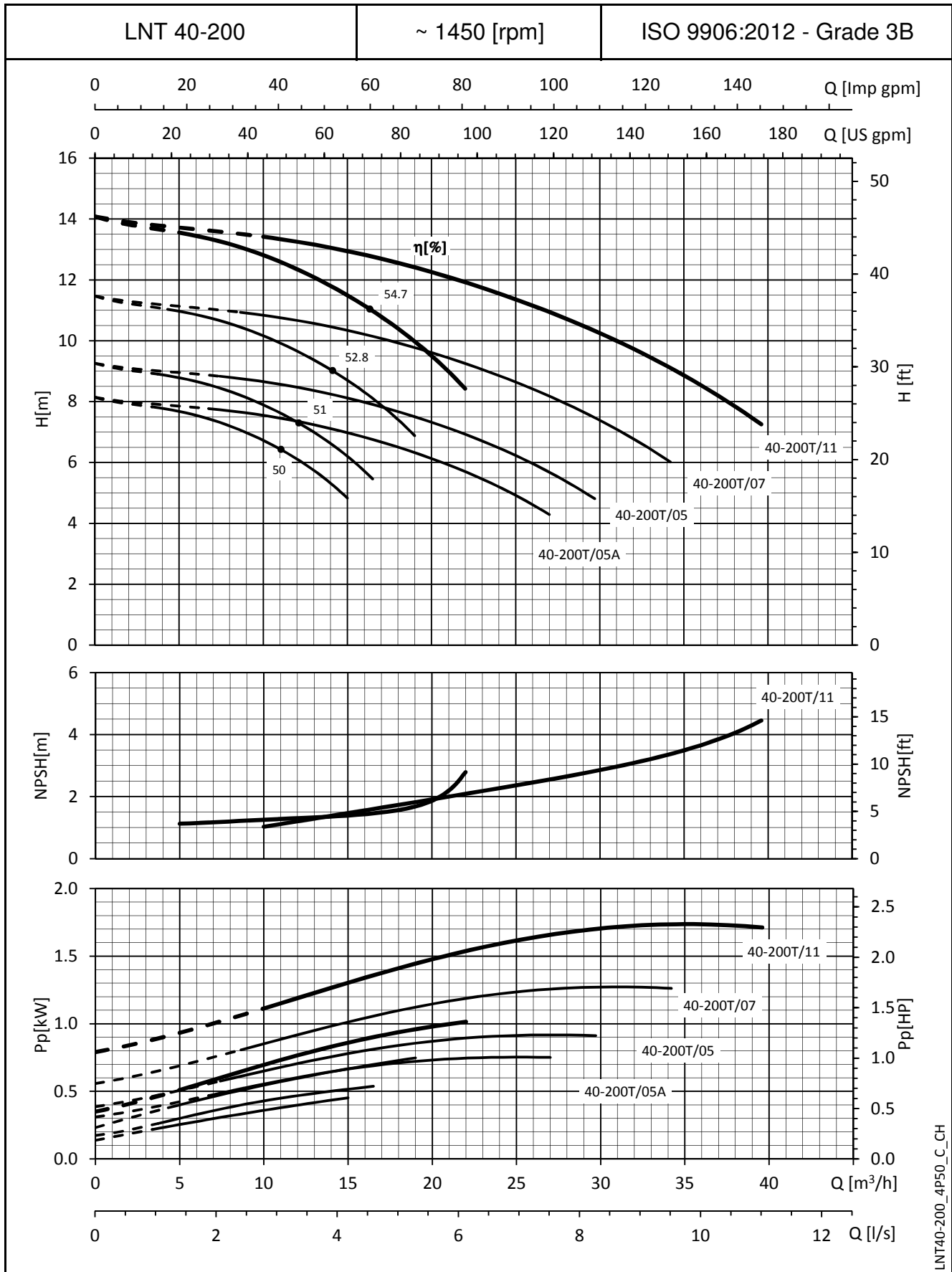


LNT40-160\_4P50\_B\_CH

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**

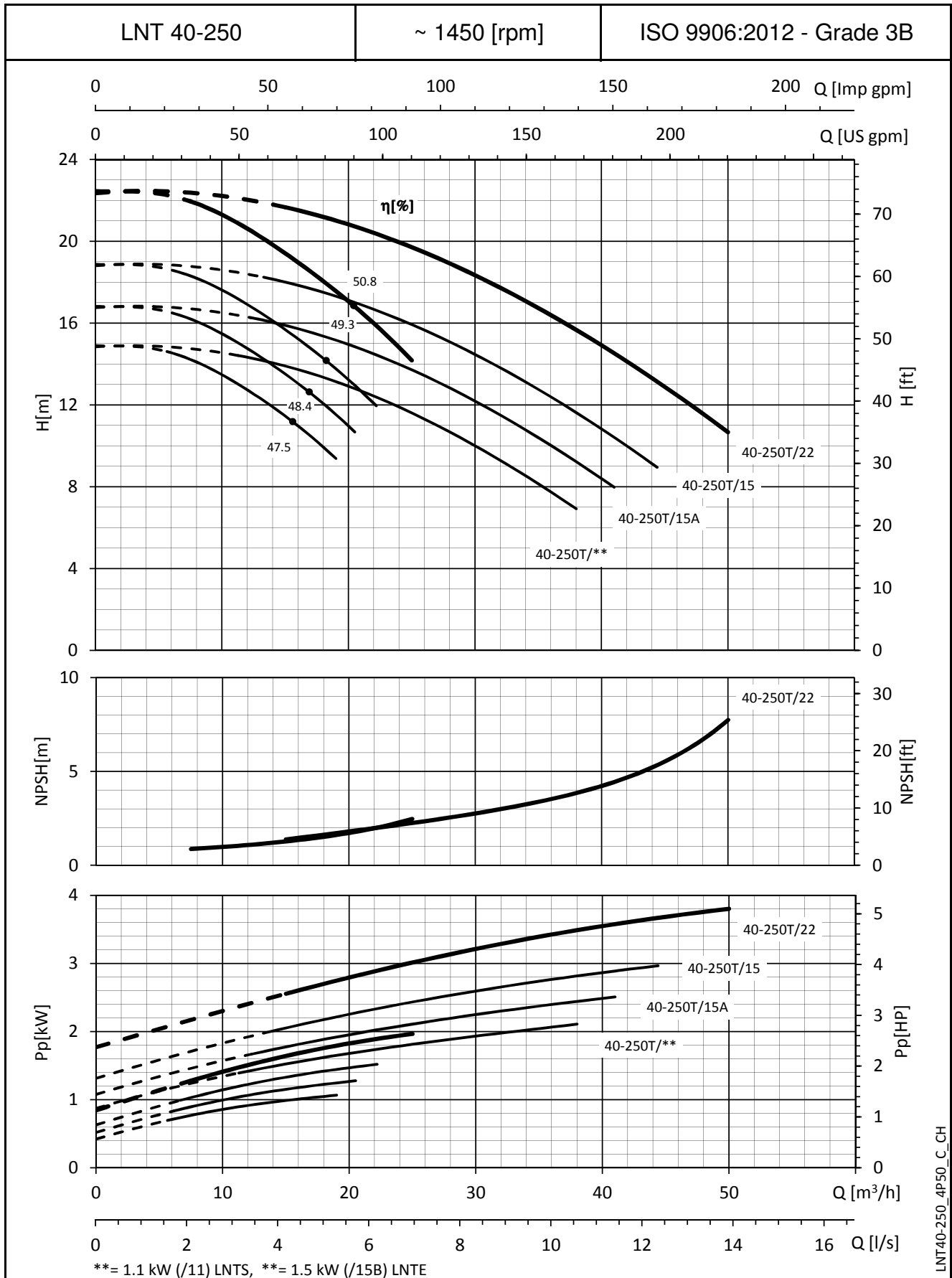
**OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES**



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 50 Hz, 4 POLES**

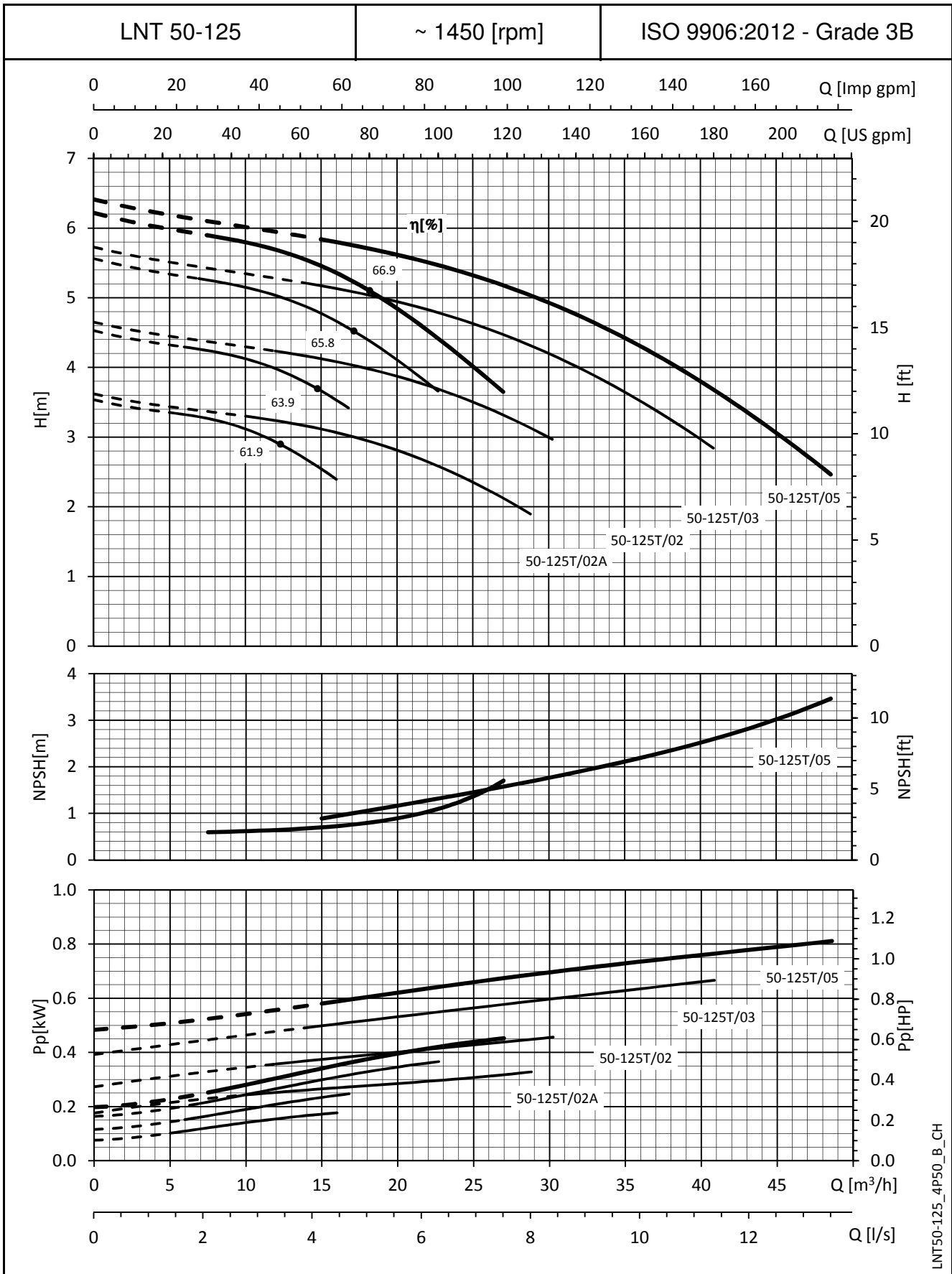


LNT40-250\_4P50\_C\_CH

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 50 Hz, 4 POLES**



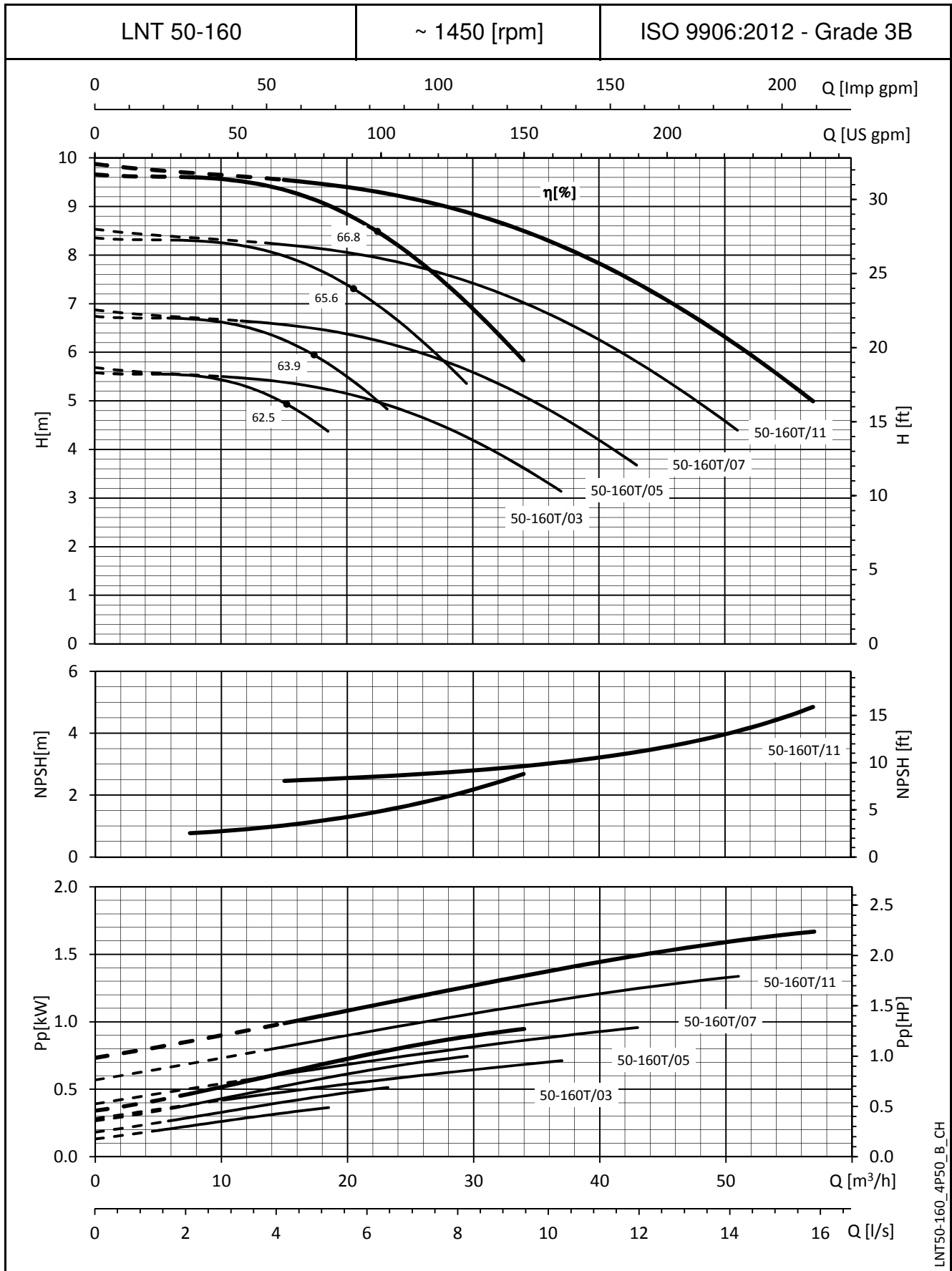
LNT50-125\_4P50\_B\_CH

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 50 Hz, 4 POLES**

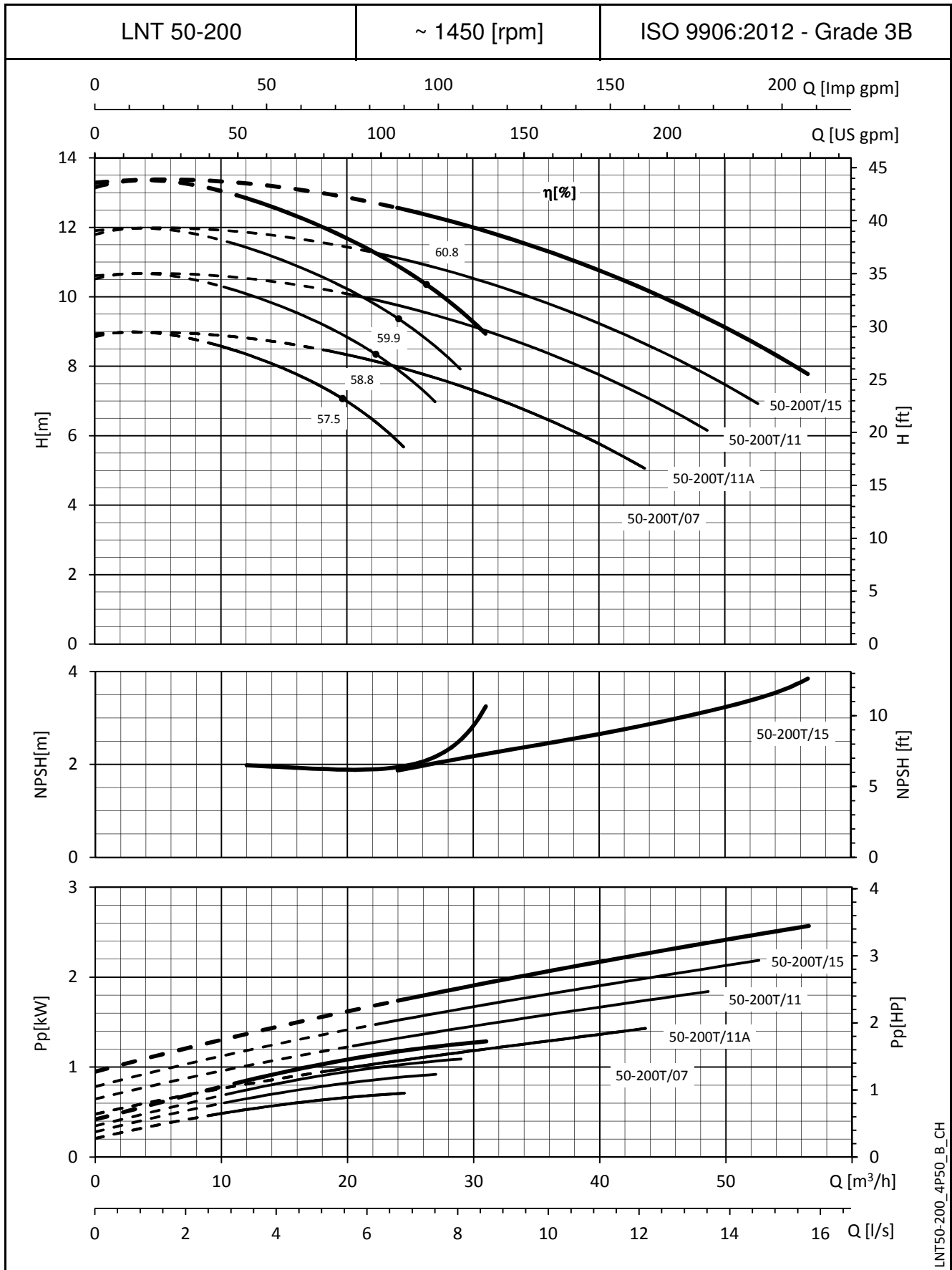


LNT50-160\_4P50\_B\_CH

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 50 Hz, 4 POLES**

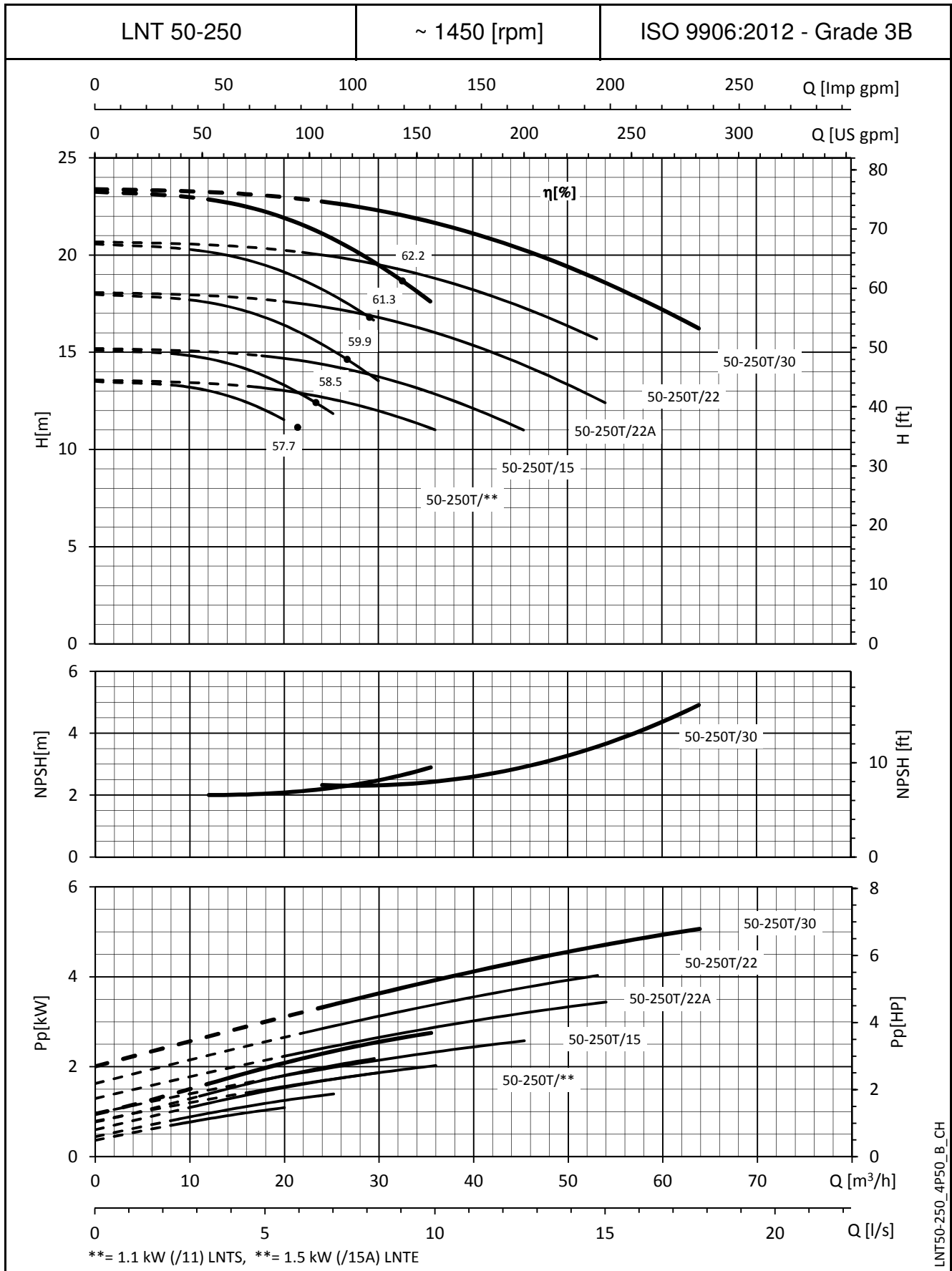


LNT50-200\_4P50\_B\_CH

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  $\nu = 1 \text{ mm}^2/\text{sec}$ .

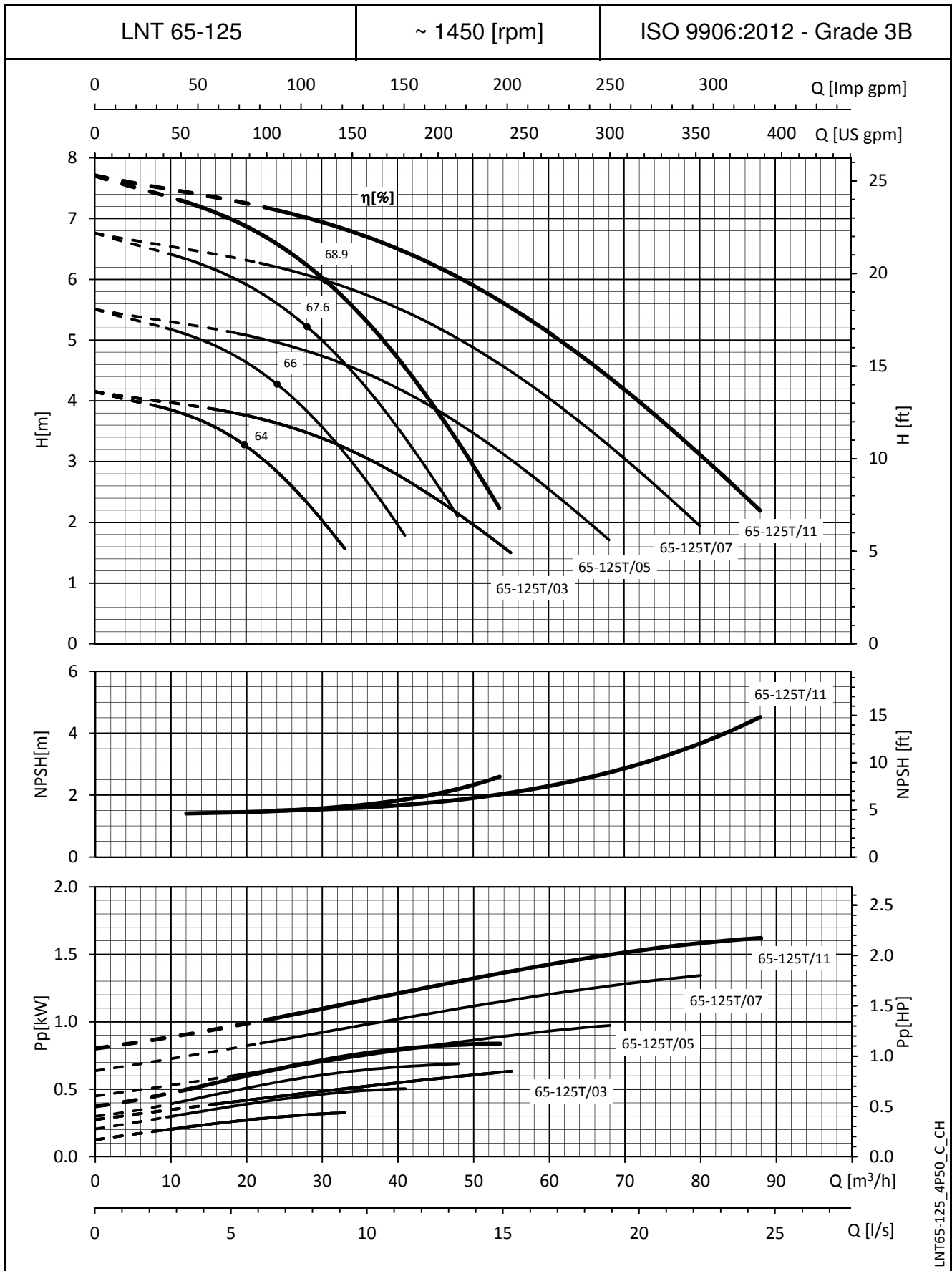
**e-LNT SERIES**

**OPERATING CHARACTERISTICS AT 50 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 50 Hz, 4 POLES**

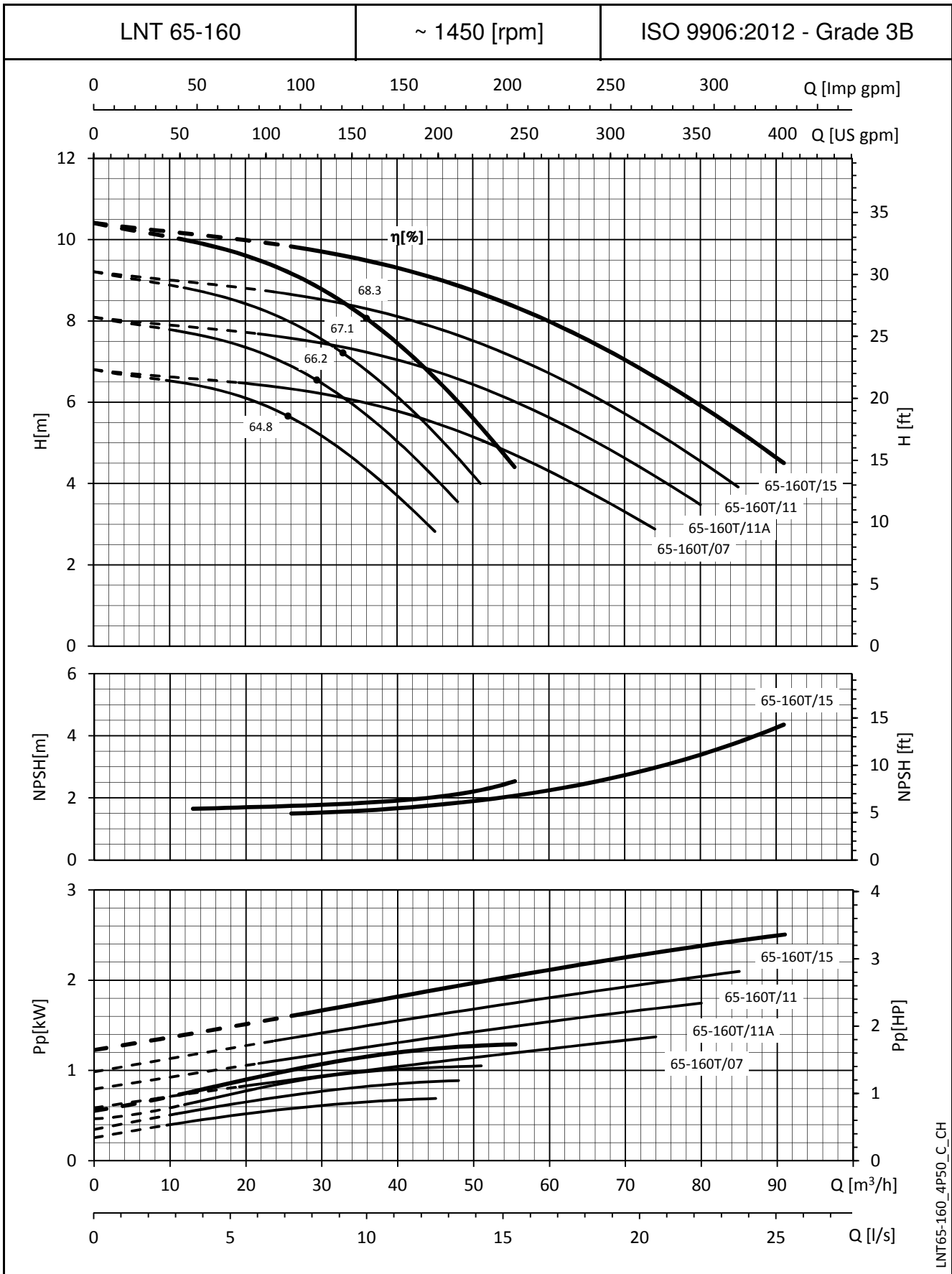


LNT65-125\_4P50\_C\_CH

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 50 Hz, 4 POLES**

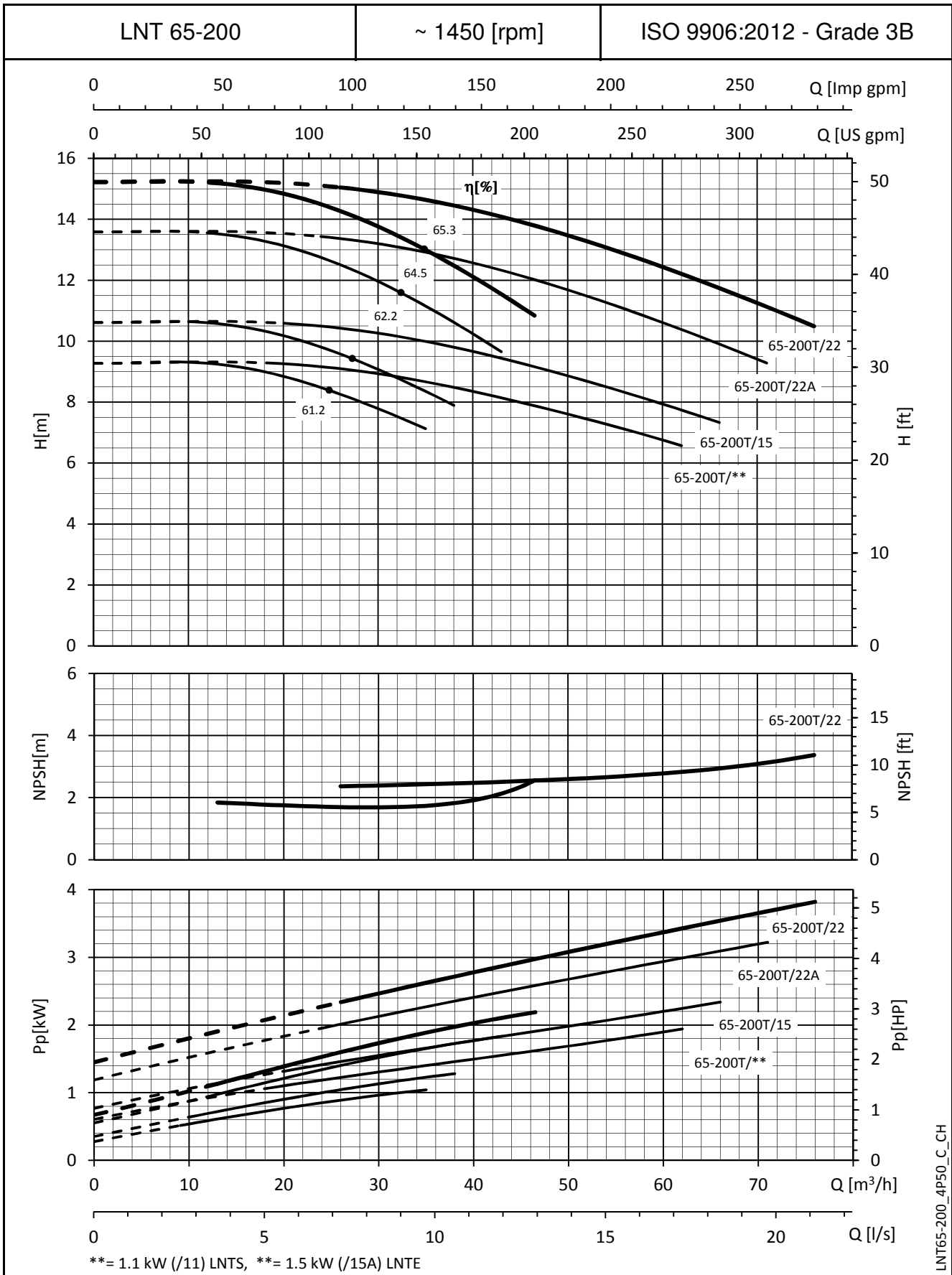


LNT65-160\_4P50\_C\_CH

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 50 Hz, 4 POLES**

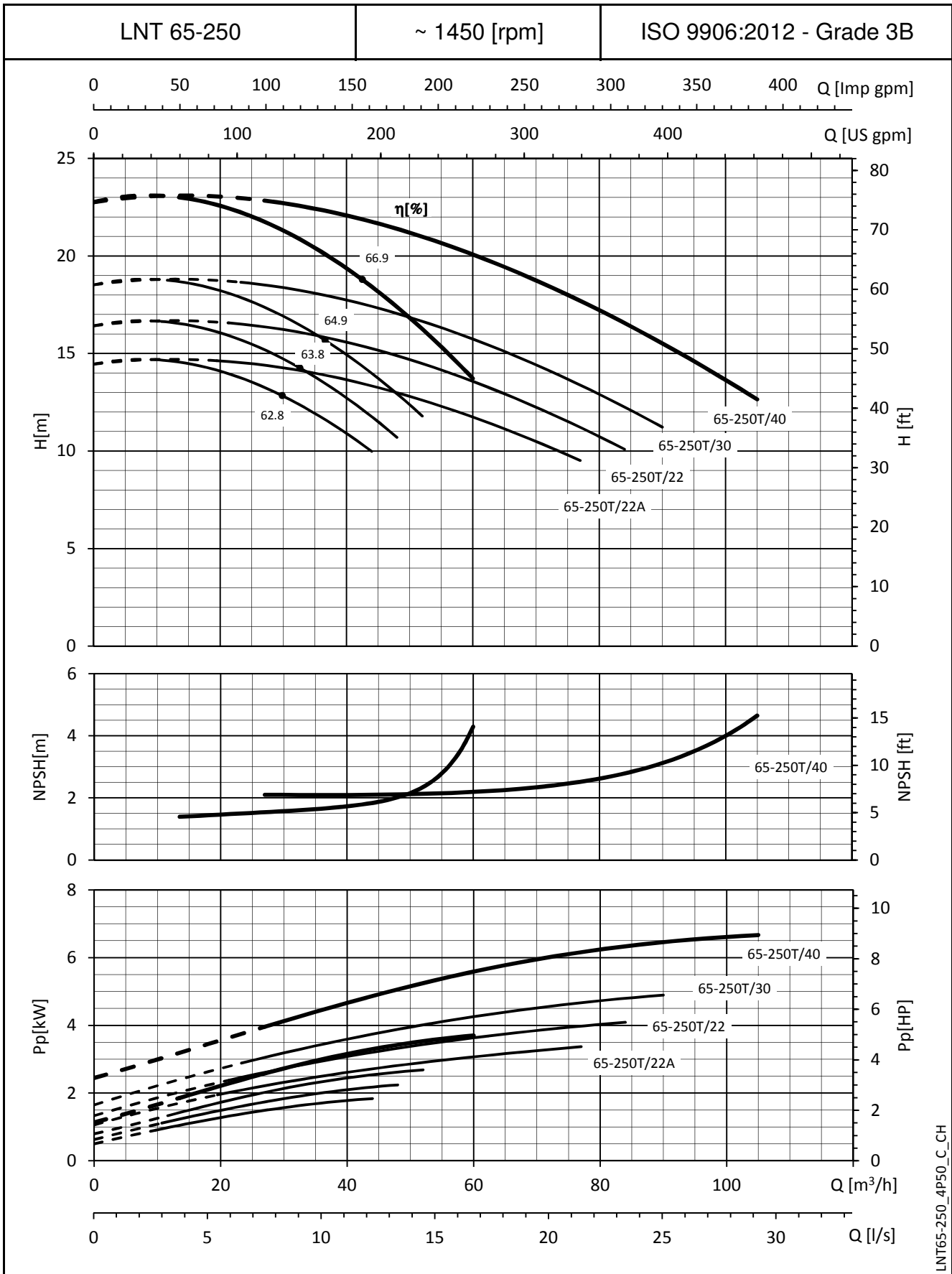


LNT65-200\_4P50\_C\_CH

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**

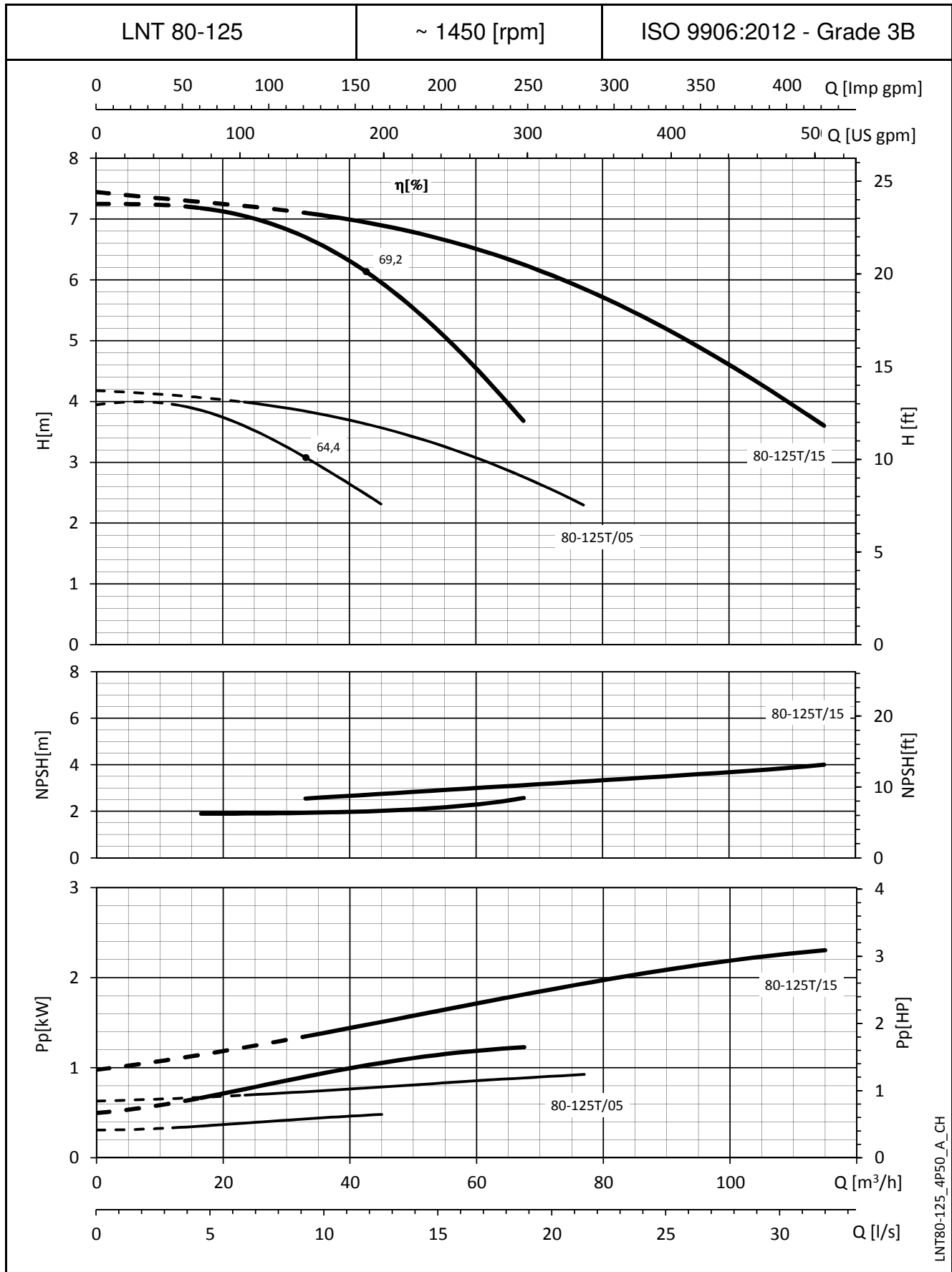
**OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES**



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 50 Hz, 4 POLES**



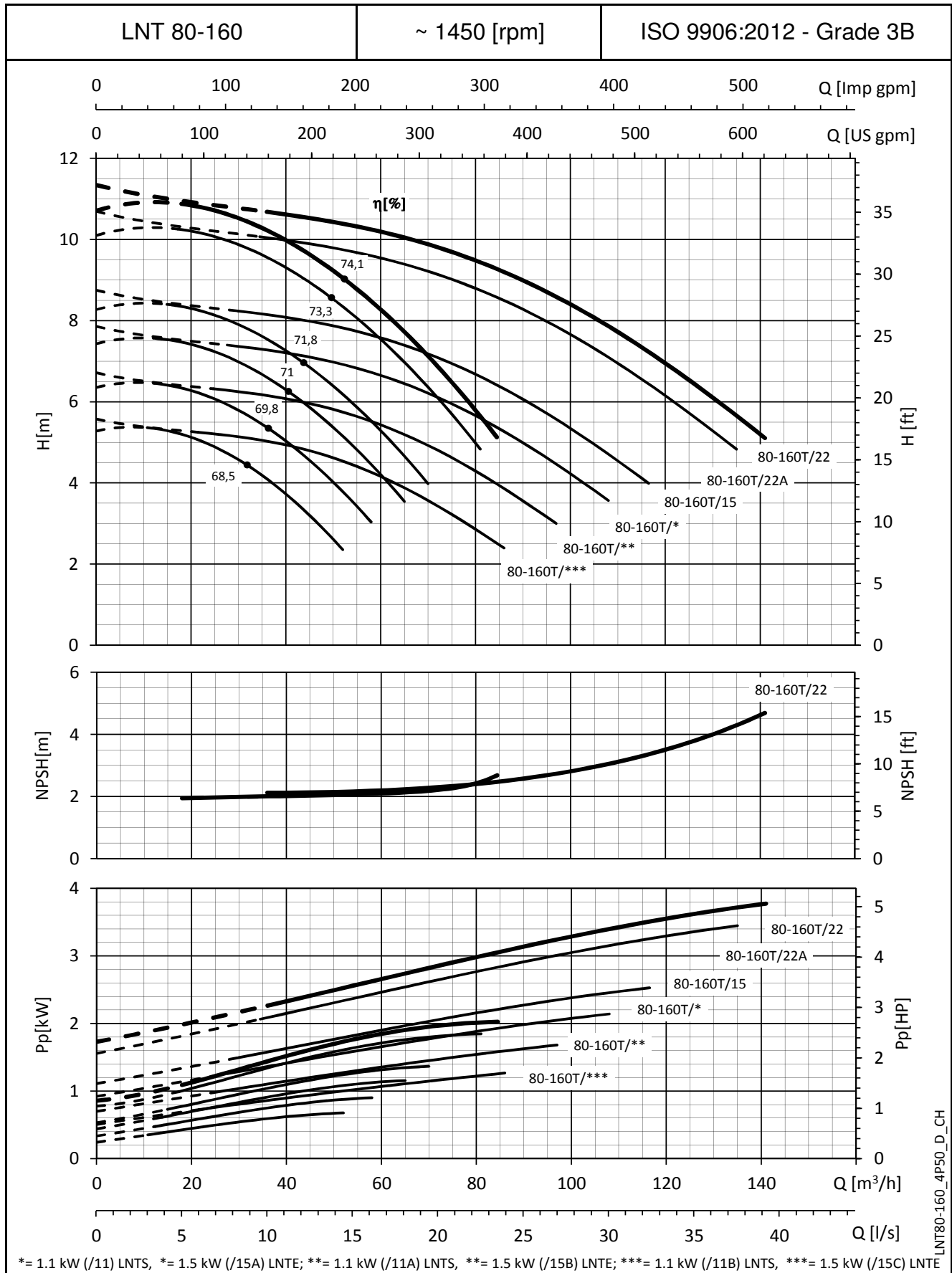
LNT80-125\_4P50\_A\_CH

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**

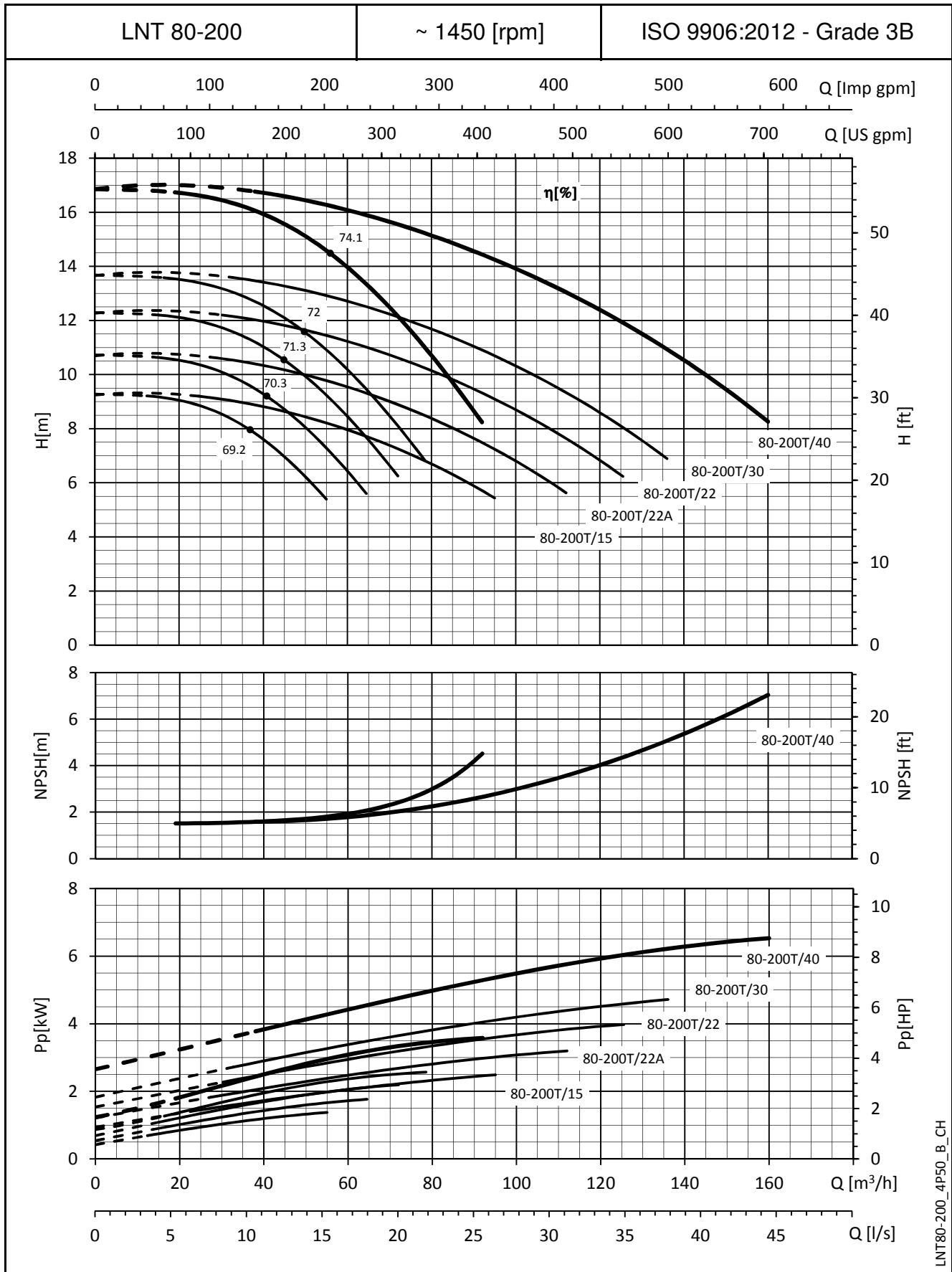
**OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES**



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 50 Hz, 4 POLES**

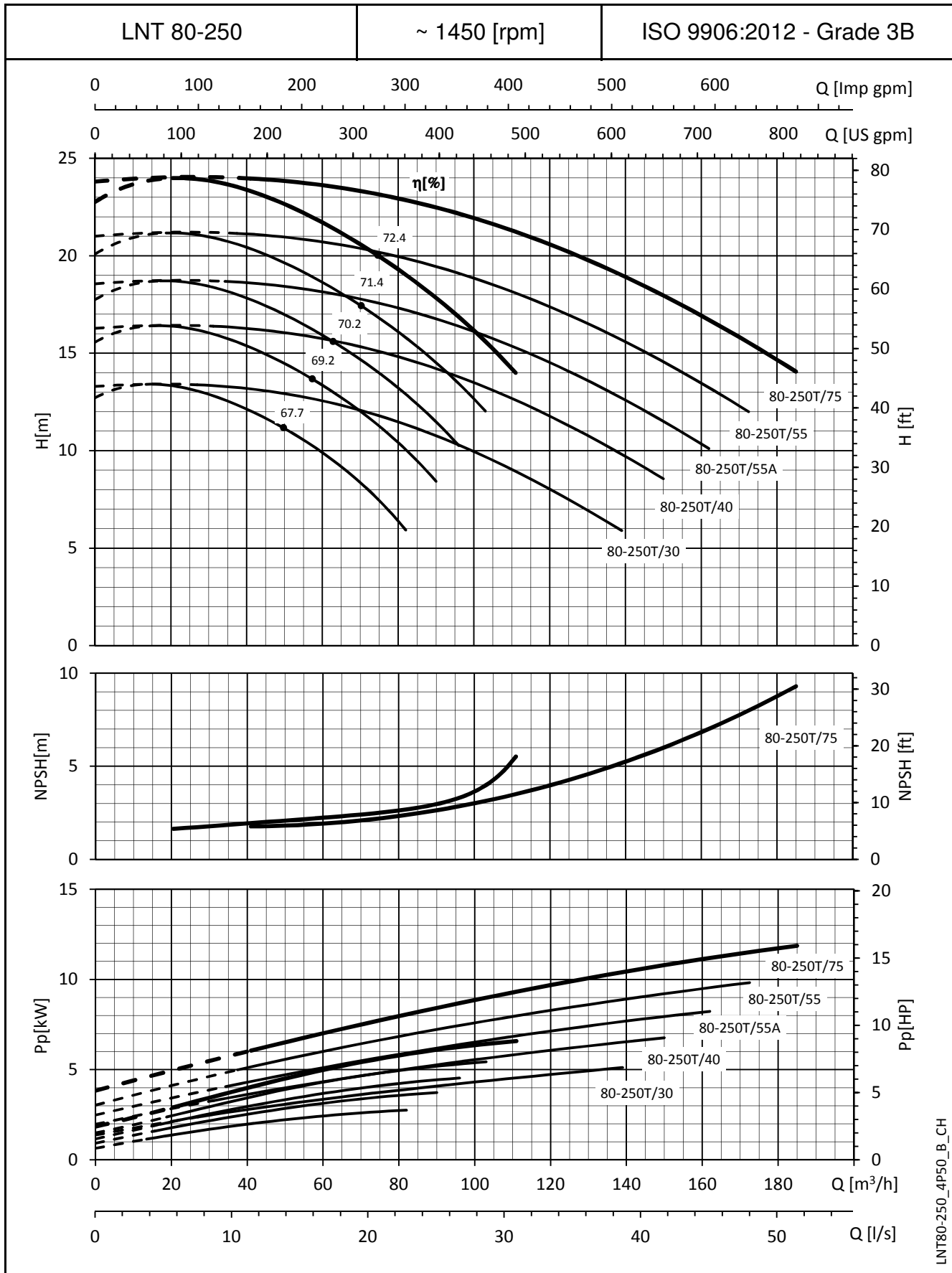


LNT80-200\_4P50\_B\_CH

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 50 Hz, 4 POLES**

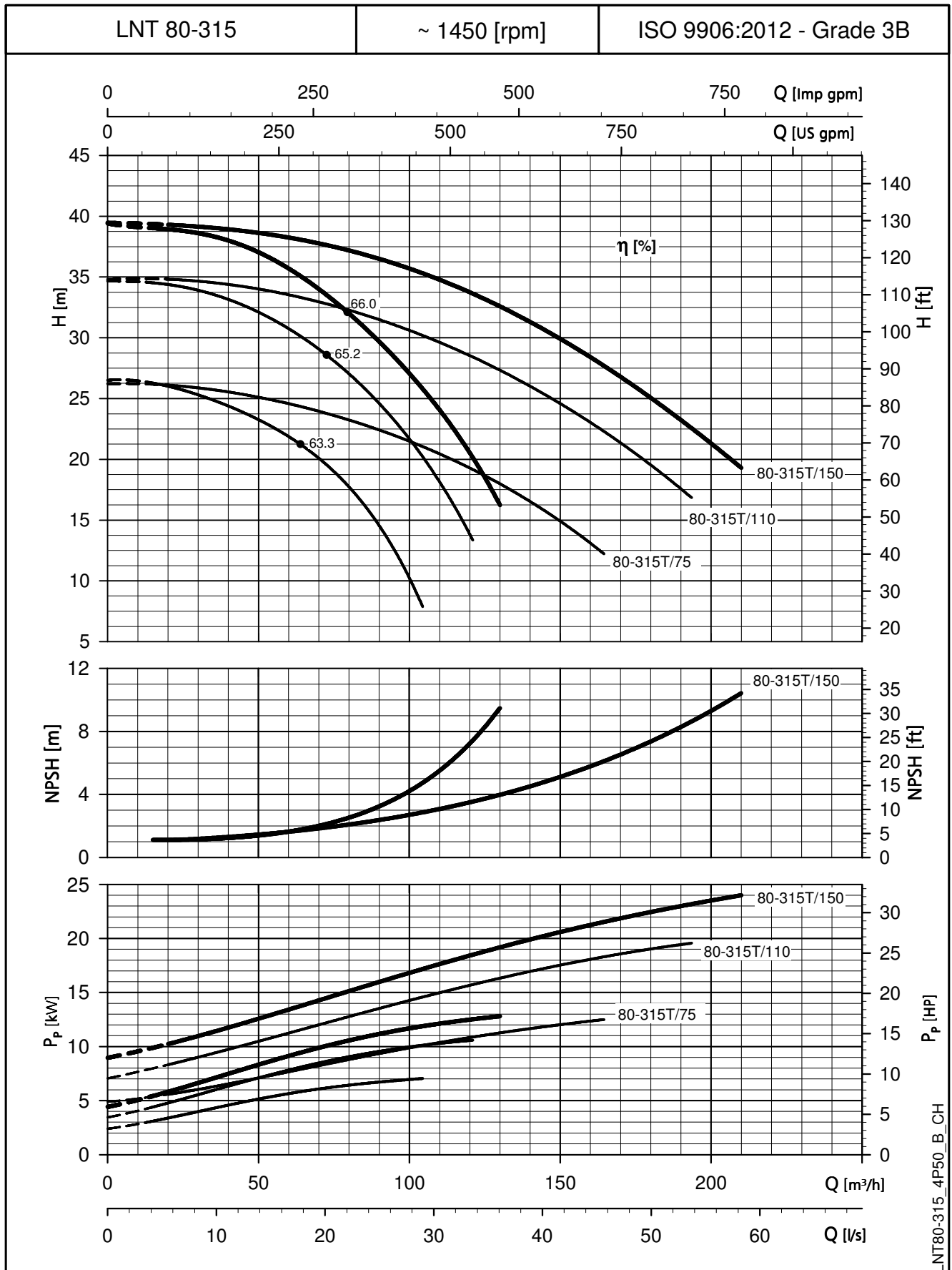


LNT80-250\_4P50\_B\_CH

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**

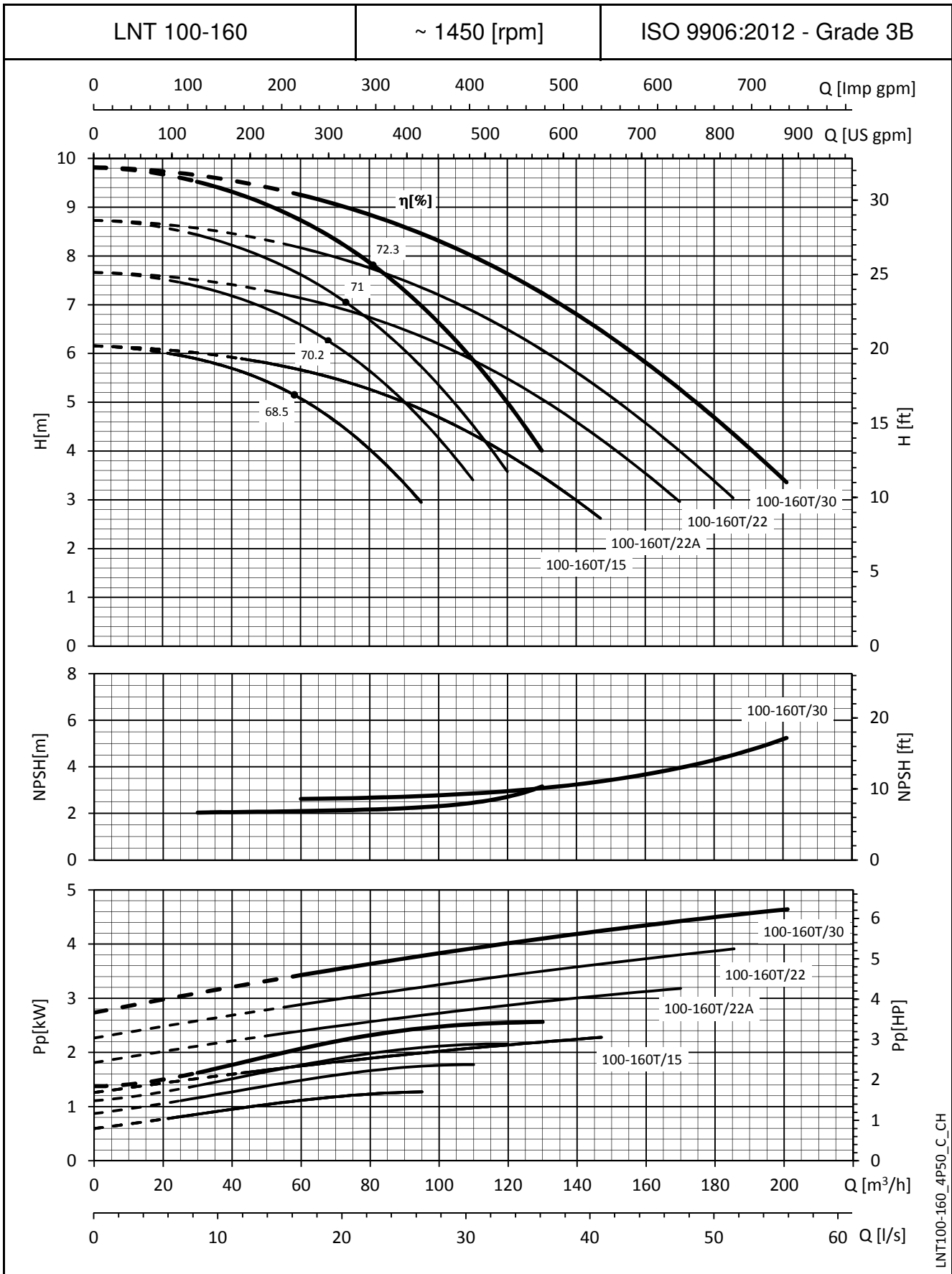
**OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES**



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 50 Hz, 4 POLES**

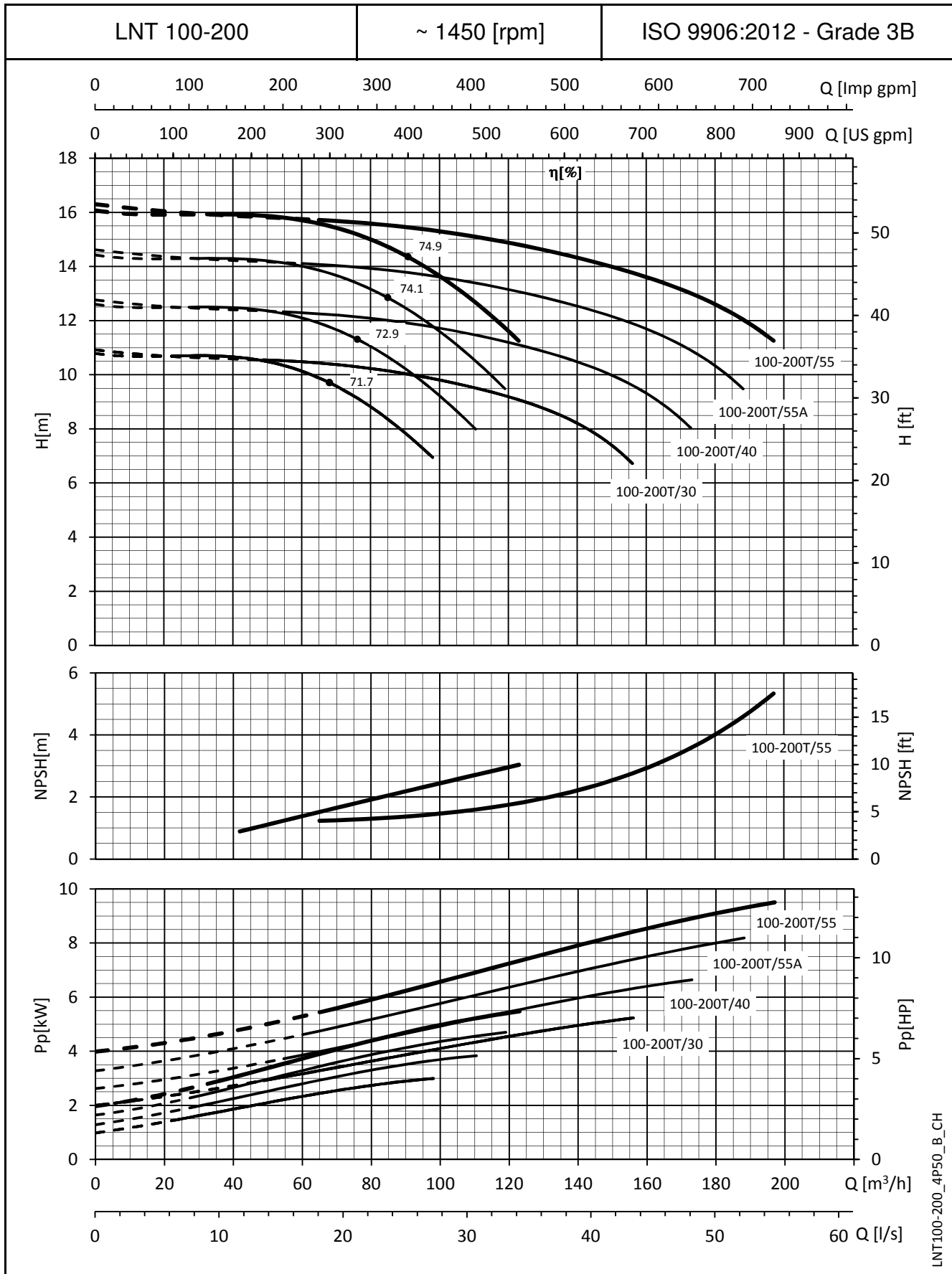


LNT100-160\_4P50\_C\_CH

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 50 Hz, 4 POLES**

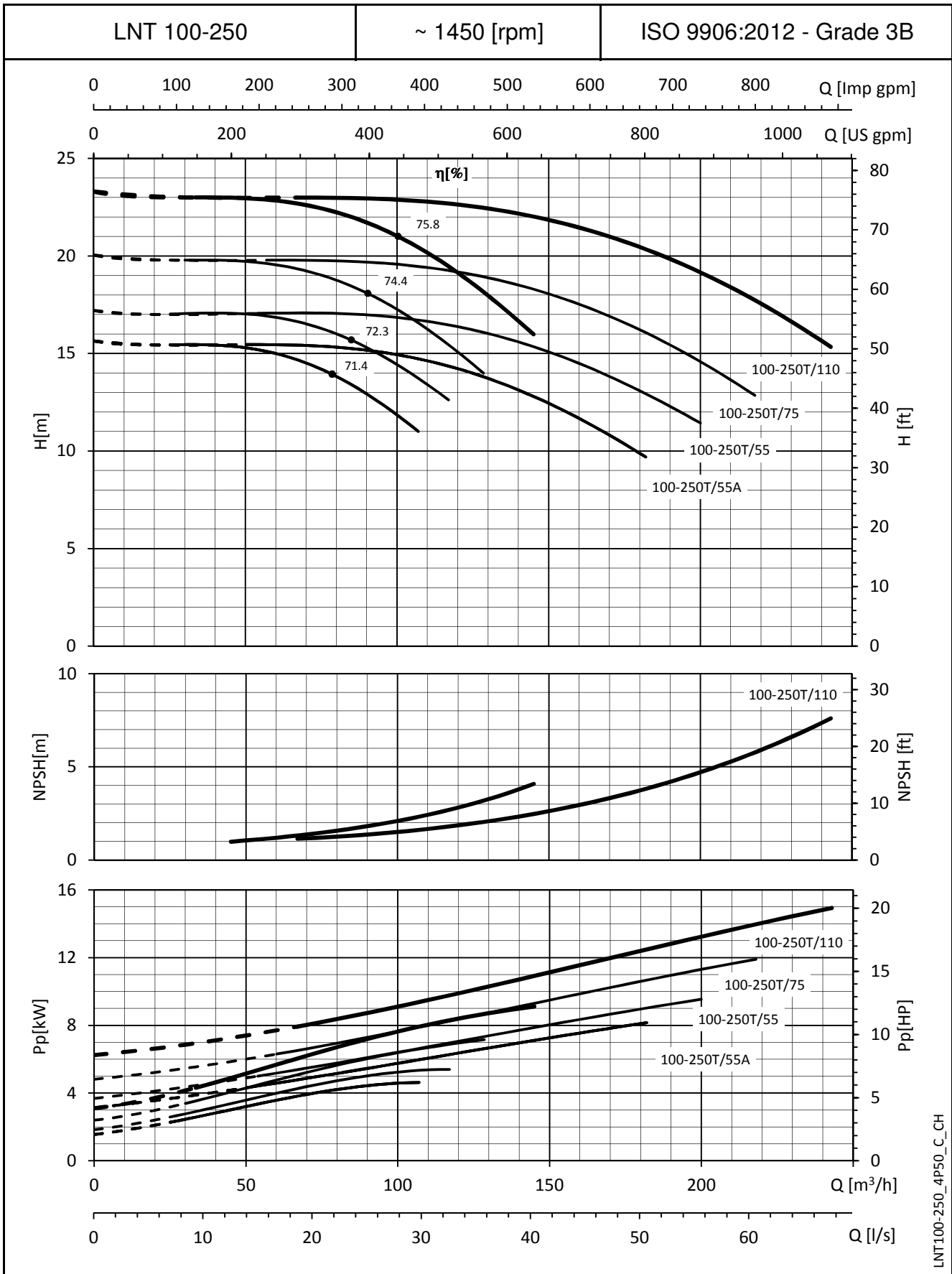


LNT100-200\_4P50\_B\_CH

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 50 Hz, 4 POLES**

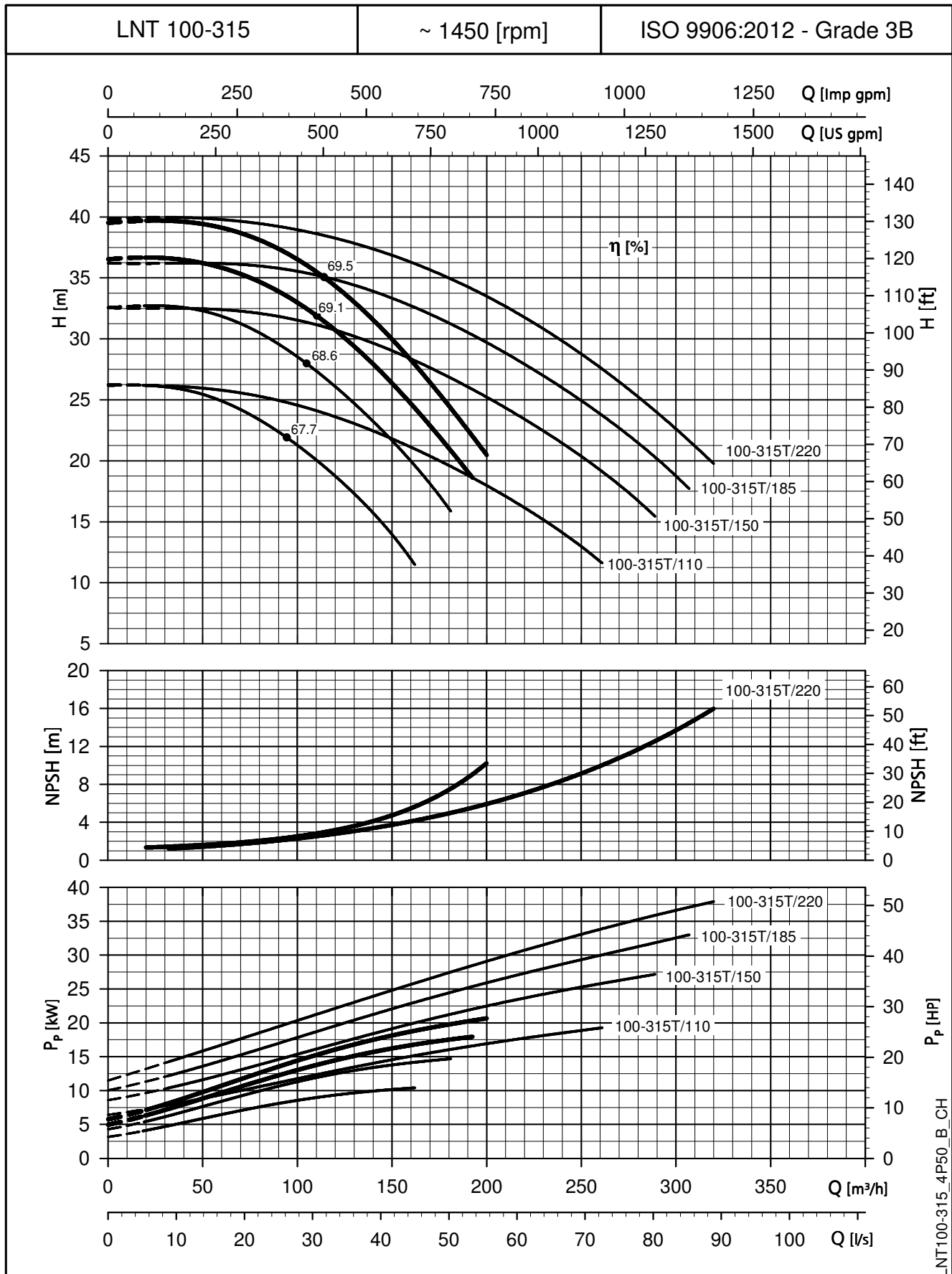


LNT100-250\_4P50\_C\_CH

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 50 Hz, 4 POLES**

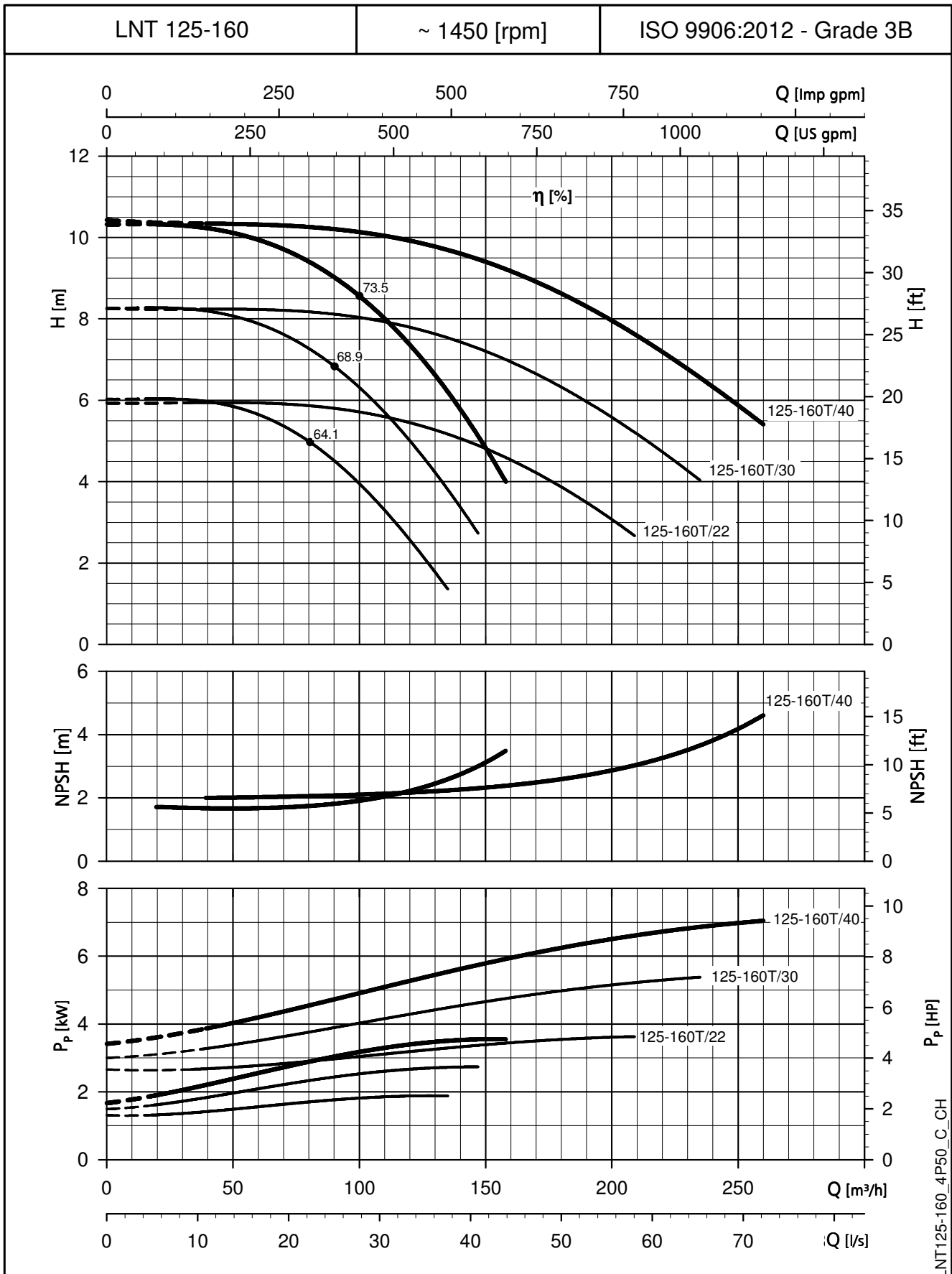


The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.  
 These performances are valid for liquids with density  $\rho = 1,0 \text{ Kg/dm}^3$  and kinematic viscosity  $\nu = 1 \text{ mm}^2/\text{sec}$ .



**e-LNT SERIES**

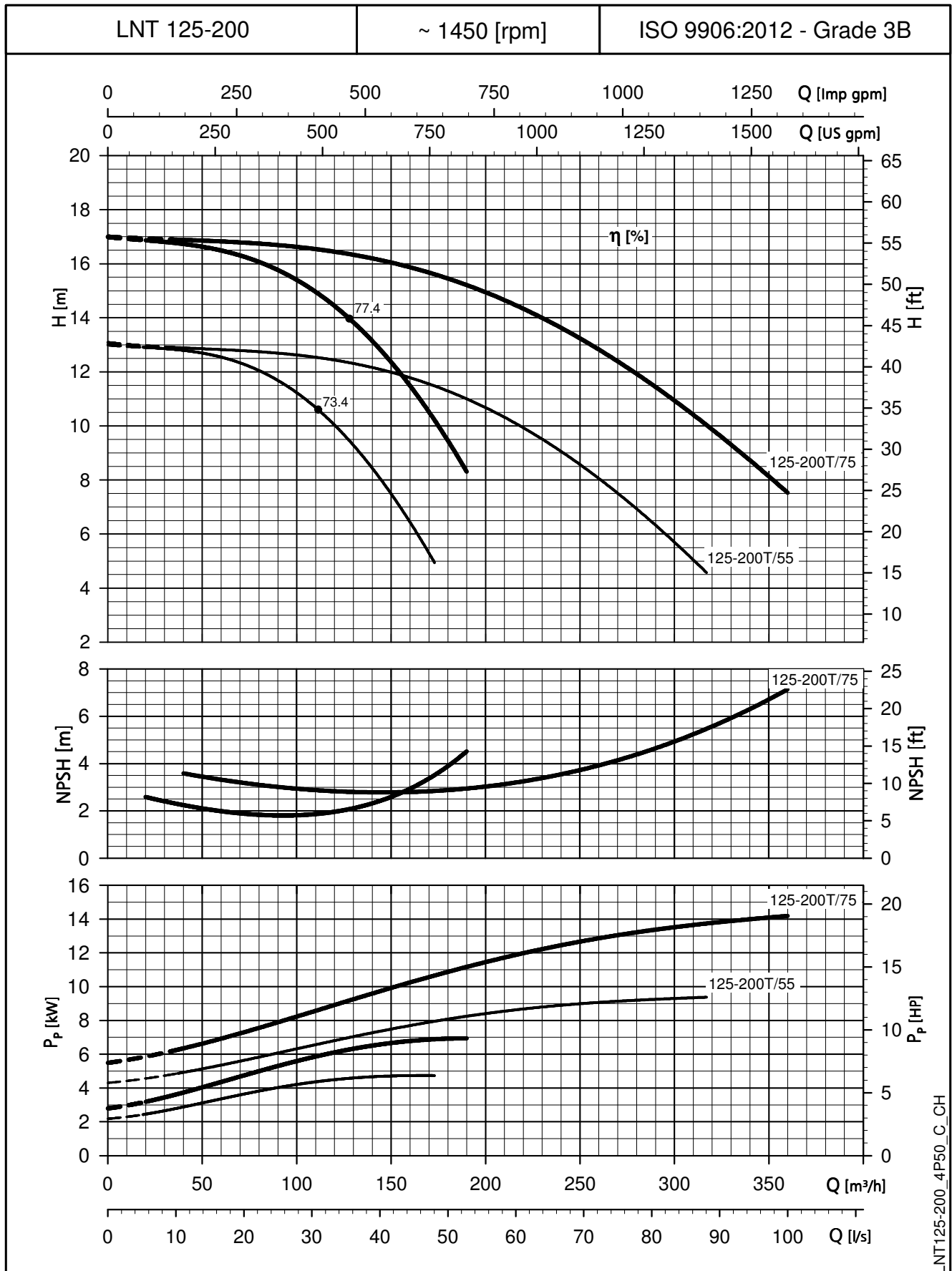
**OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES**



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 50 Hz, 4 POLES**

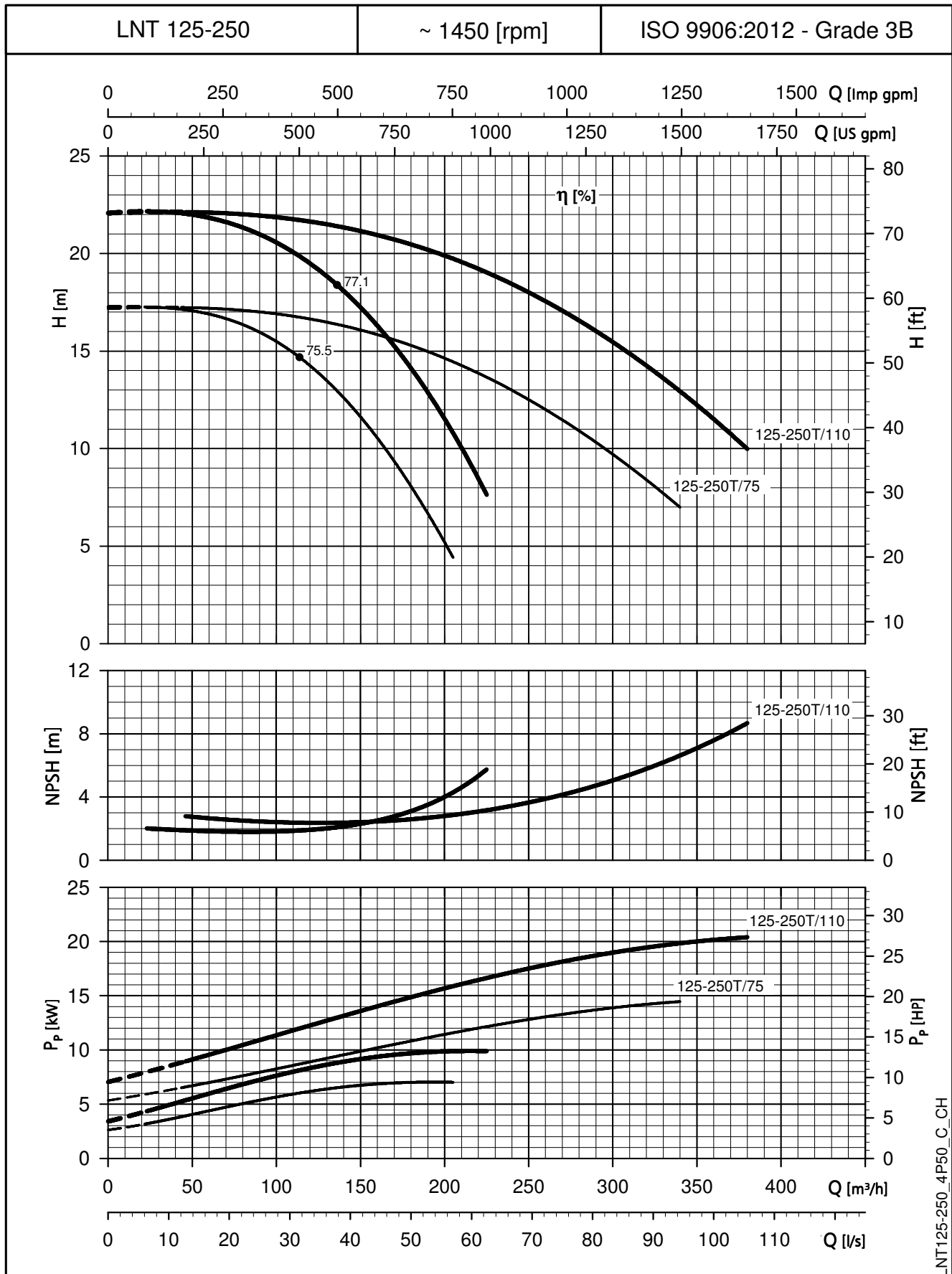


LNT125-200\_4P50\_C\_CH

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 50 Hz, 4 POLES**

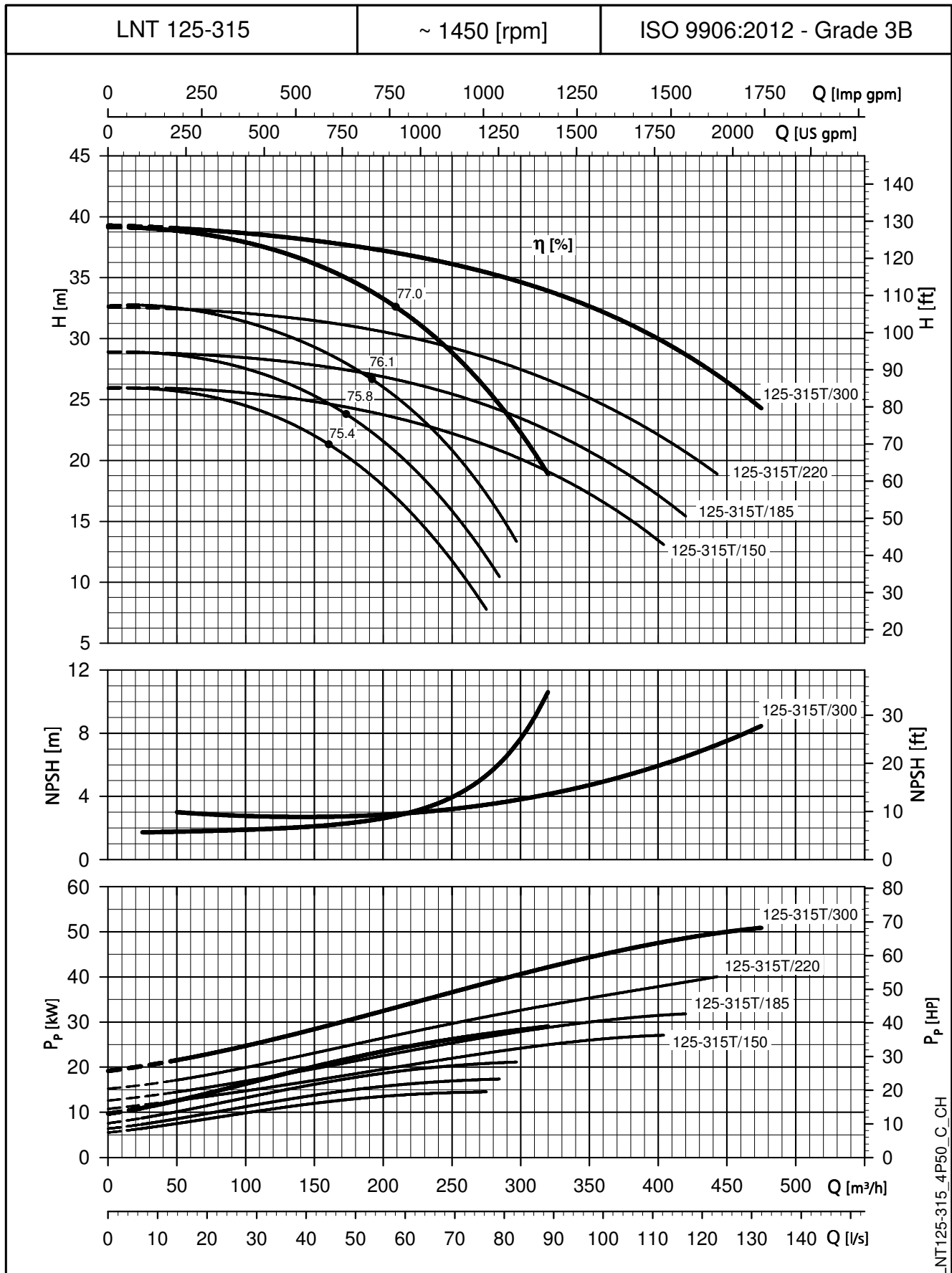


LNT125-250\_4P50\_C\_CH

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**

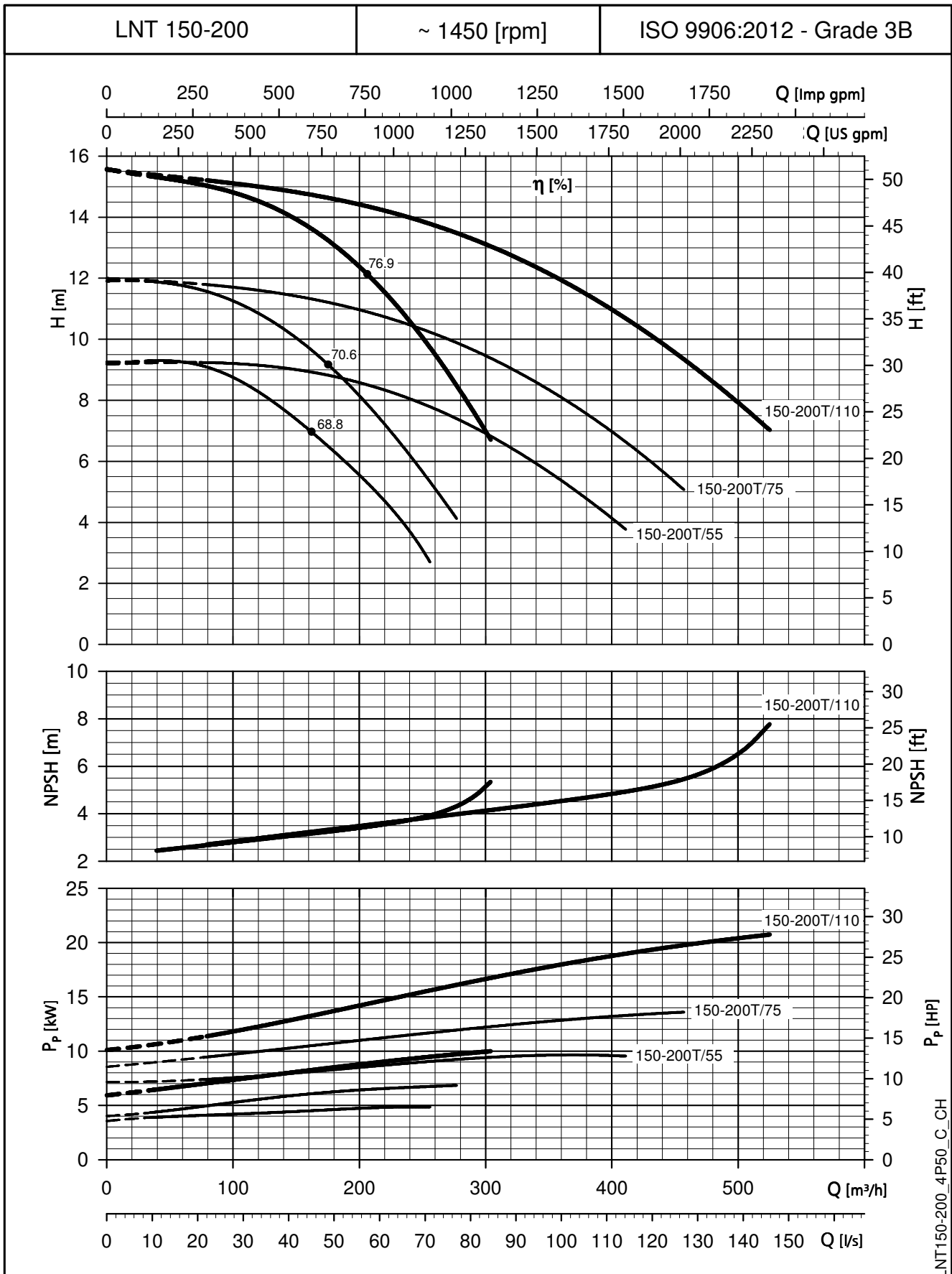
**OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES**



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**

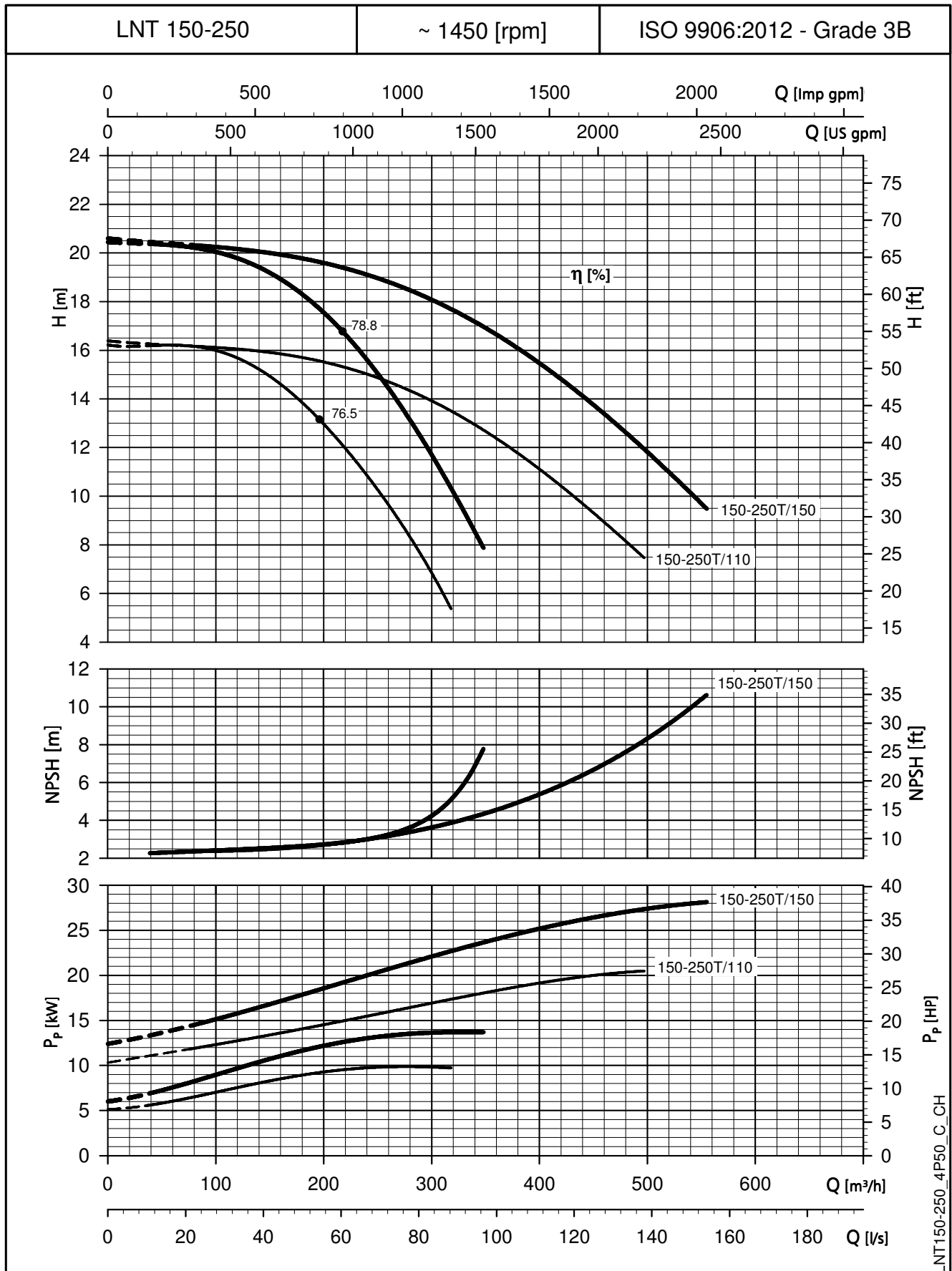
**OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES**



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 50 Hz, 4 POLES**

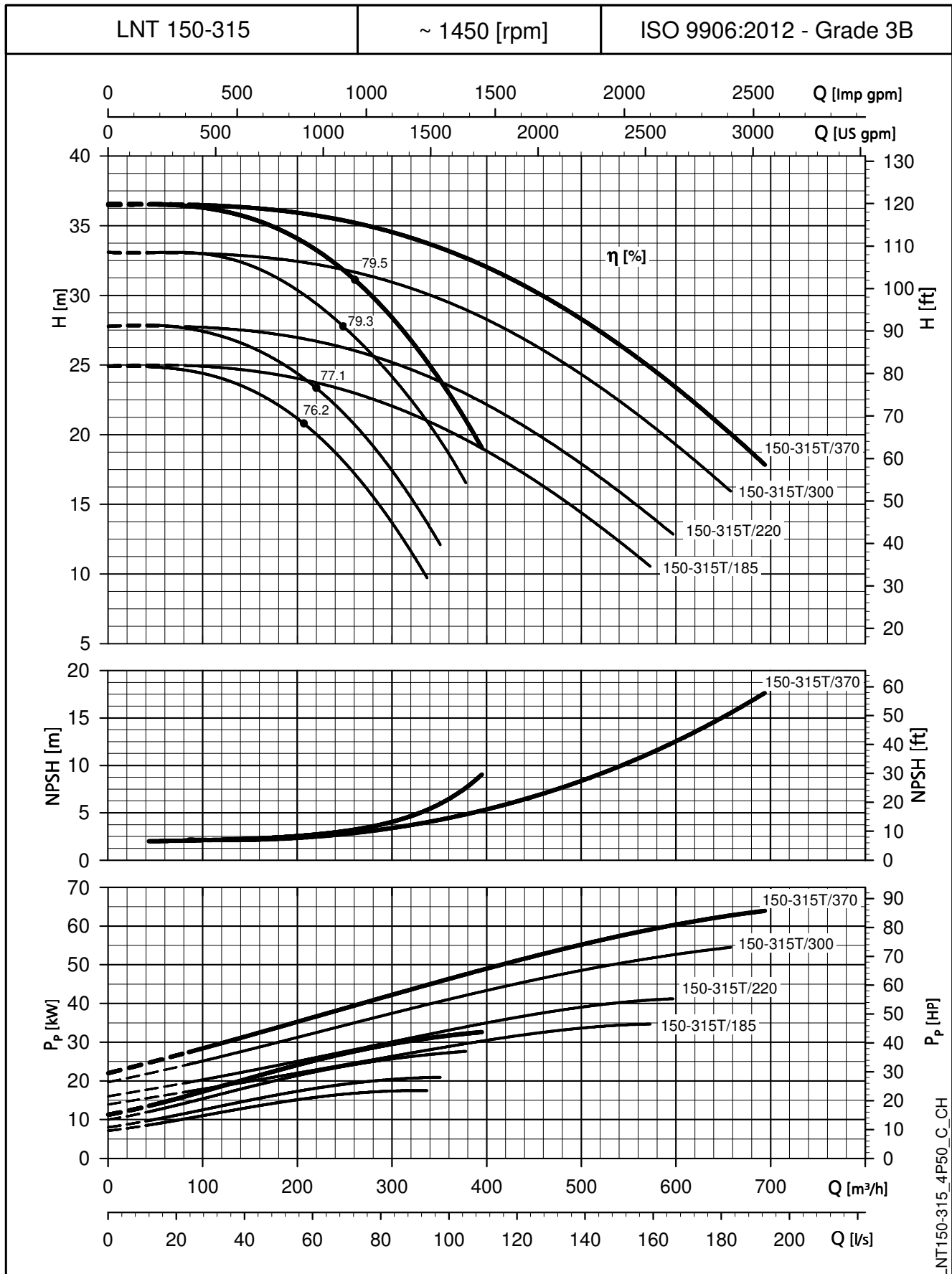


LNT150-250\_4P50\_C\_CH

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 50 Hz, 4 POLES**



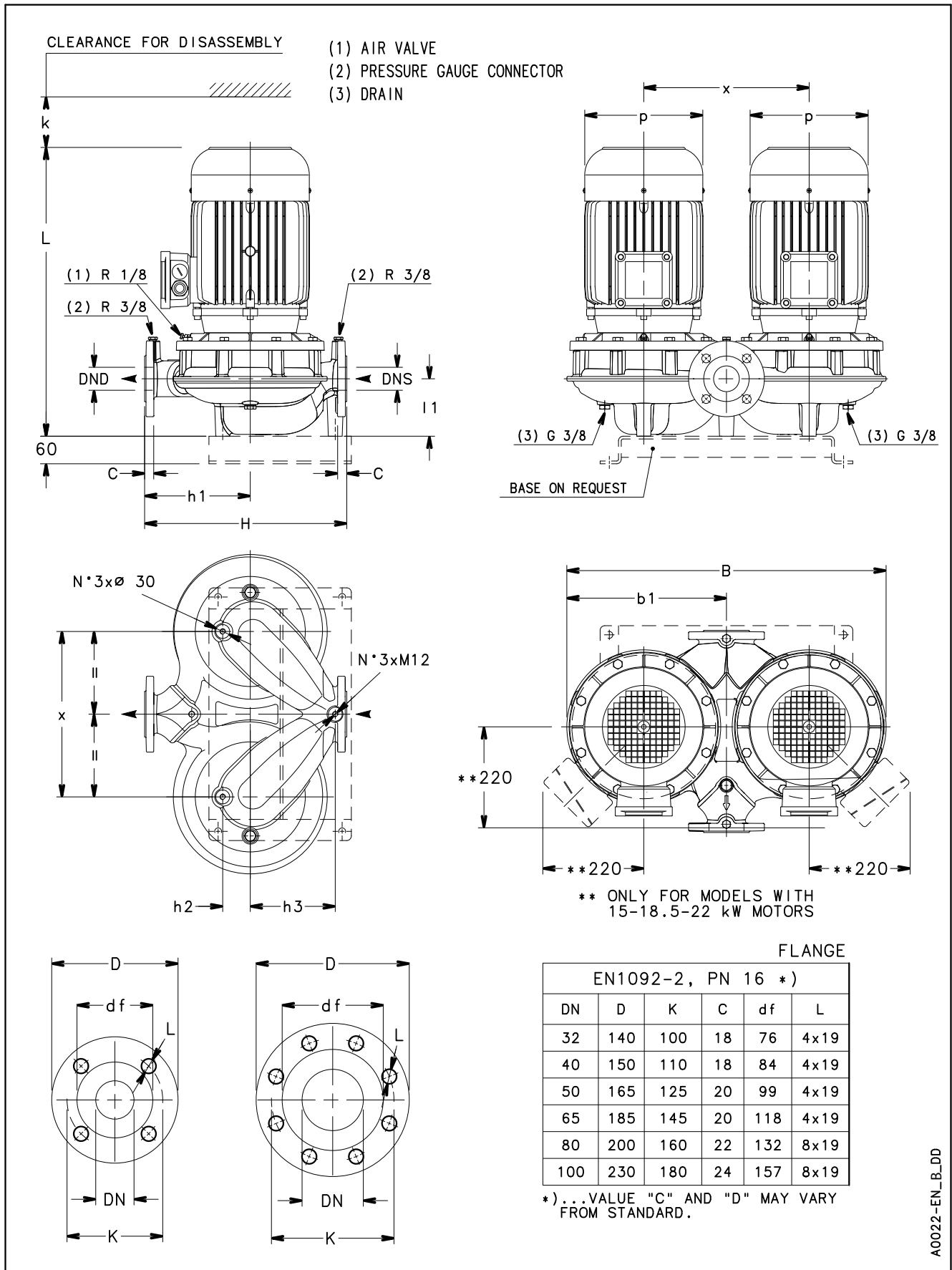
The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.  
 These performances are valid for liquids with density  $\rho = 1,0 \text{ Kg/dm}^3$  and kinematic viscosity  $\nu = 1 \text{ mm}^2/\text{sec}$ .





# **DIMENSIONS AND WEIGHTS**

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



A0022-EN\_B\_DD

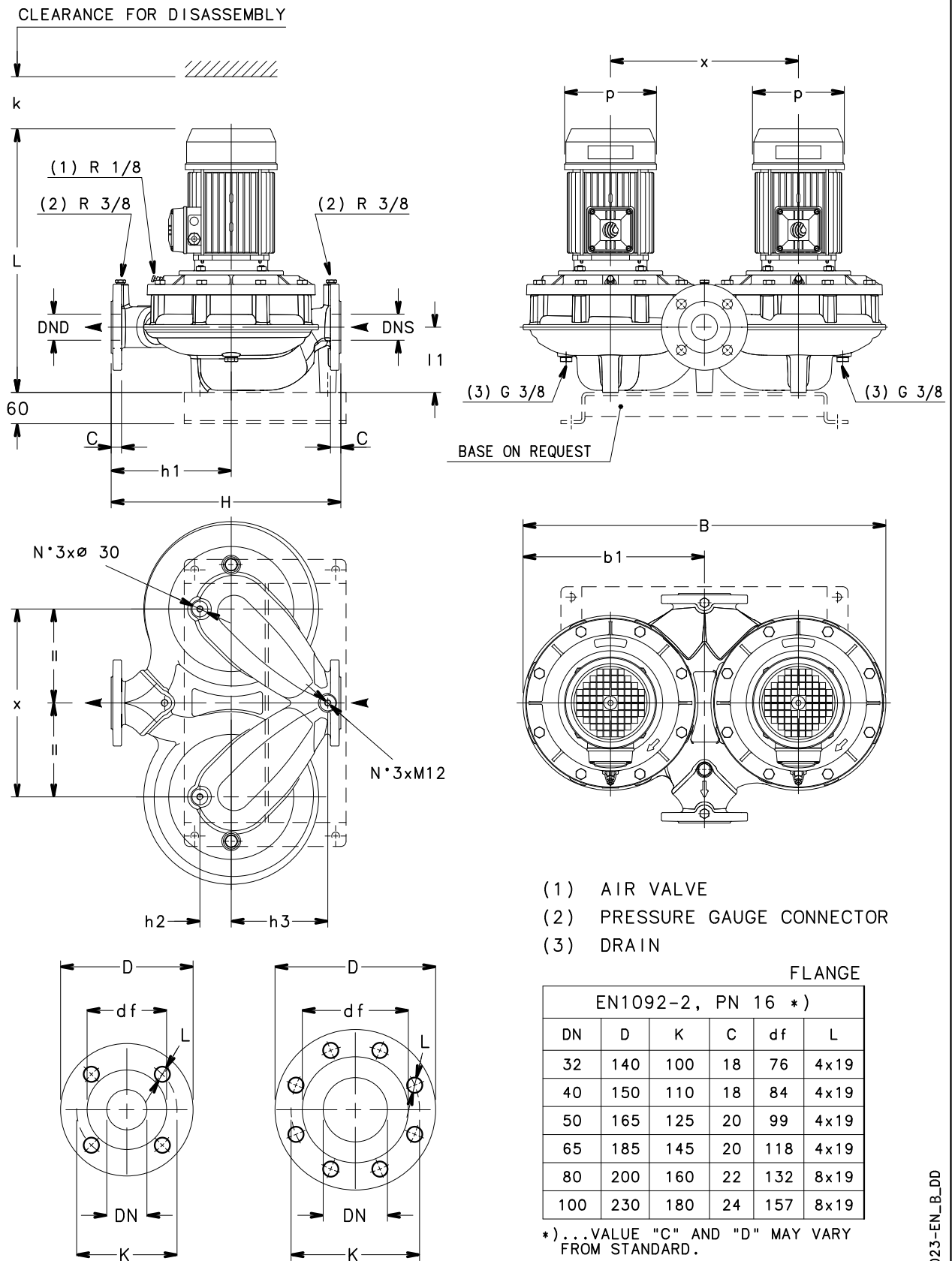
## LNTE 32, 40, 50, 65, 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE LNTE..2	DIMENSIONS (mm)										B	H	L	k	WEIGHT kg
	DND	DNS	b1	h1	h2	h3	l1	p	x						
32-160/07A/S	32	32	257	180	40	110	90	155	275	514	320	453	75	53	
32-160/07/S	32	32	257	180	40	110	90	155	275	514	320	453	75	53	
32-160/11/S	32	32	257	180	40	110	90	155	275	514	320	453	75	55	
32-160/15/S	32	32	257	180	40	110	90	155	275	514	320	453	75	63	
32-160/22/P	32	32	257	180	40	110	90	174	275	514	320	488	75	77	
32-160/30/P	32	32	257	180	40	110	90	174	275	514	320	488	75	79	
40-125/11/S	40	40	274,5	180	52	110	100	155	310	549	320	463	94	57	
40-125/15/S	40	40	274,5	180	52	110	100	155	310	549	320	463	94	65	
40-125/22/P	40	40	274,5	180	52	110	100	174	310	549	320	498	94	79	
40-125/30/P	40	40	274,5	180	52	110	100	174	310	549	320	498	94	81	
40-160/22/P	40	40	274,5	180	52	110	100	174	310	549	320	498	94	79	
40-160/30/P	40	40	274,5	180	52	110	100	174	310	549	320	498	94	81	
40-160/40/P	40	40	274,5	180	52	110	100	197	310	549	320	519	94	91	
40-160/55/P	40	40	274,5	180	52	110	100	214	310	549	320	553	94	109	
40-200/30/P	40	40	372,5	220	65	193	110	174	410	745	440	506	104	113	
40-200/40/P	40	40	372,5	220	65	193	110	197	410	745	440	527	104	123	
40-200/55/P	40	40	372,5	220	65	193	110	214	410	745	440	561	104	141	
40-200/75/P	40	40	372,5	220	65	193	110	256	410	745	440	575	104	179	
40-250/75/P	40	40	372,5	220	65	193	110	256	410	745	440	575	104	179	
40-250/92/P	40	40	372,5	220	65	193	110	256	410	745	440	613	104	191	
40-250/110/P	40	40	372,5	220	65	193	110	256	410	745	440	613	104	197	
40-250/150/P	40	40	372,5	220	65	193	110	313	410	745	440	702	104	277	
50-125/15/S	50	50	275	190	57	120	116	155	310	555	340	479	96	74	
50-125/22/P	50	50	275	190	57	120	116	174	310	555	340	514	96	88	
50-125/30/P	50	50	275	190	57	120	116	174	310	555	340	514	96	90	
50-125/40/P	50	50	275	190	57	120	116	197	310	555	340	535	96	100	
50-160/30/P	50	50	275	190	57	120	116	174	310	555	340	514	96	90	
50-160/40/P	50	50	275	190	57	120	116	197	310	555	340	535	96	100	
50-160/55/P	50	50	275	190	57	120	116	214	310	555	340	569	96	118	
50-160/75/P	50	50	275	190	57	120	116	256	310	555	340	583	96	156	
50-200/55/P	50	50	372,5	230	60	185	115	214	410	745	440	568	108	153	
50-200/75/P	50	50	372,5	230	60	185	115	256	410	745	440	582	108	191	
50-200/92/P	50	50	372,5	230	60	185	115	256	410	745	440	620	108	203	
50-200/110/P	50	50	372,5	230	60	185	115	256	410	745	440	620	108	209	
50-250/92/P	50	50	372,5	230	60	185	115	256	410	745	440	620	108	203	
50-250/110/P	50	50	372,5	230	60	185	115	256	410	745	440	620	108	209	
50-250/150/P	50	50	372,5	230	60	185	115	313	410	745	440	709	108	289	
50-250/185/P	50	50	372,5	230	60	185	115	313	410	745	440	709	108	311	
50-250/220/P	50	50	372,5	230	60	185	115	313	410	745	440	709	108	329	
65-125/30/P	65	65	323	190	75	140	122	174	360	646	360	526	100	102	
65-125/40/P	65	65	323	190	75	140	122	197	360	646	360	547	100	112	
65-125/55/P	65	65	323	190	75	140	122	214	360	646	360	581	100	130	
65-125/75/P	65	65	323	190	75	140	122	256	360	646	360	595	100	168	
65-160/55/P	65	65	323	190	75	140	122	214	360	646	360	581	94	130	
65-160/75/P	65	65	323	190	75	140	122	256	360	646	360	595	94	168	
65-160/92/P	65	65	323	190	75	140	122	256	360	646	360	633	94	180	
65-160/110/P	65	65	323	190	75	140	122	256	360	646	360	633	94	186	
65-200/92/P	65	65	377,5	250	76	196	118	256	420	762	475	623	105	211	
65-200/110/P	65	65	377,5	250	76	196	118	256	420	762	475	623	105	217	
65-200/150/P	65	65	377,5	250	76	196	118	313	420	762	475	712	105	297	
65-200/185/P	65	65	377,5	250	76	196	118	313	420	762	475	712	105	319	
65-250/150/P	65	65	377,5	250	76	196	118	313	420	762	475	712	105	297	
65-250/185/P	65	65	377,5	250	76	196	118	313	420	762	475	712	105	319	
65-250/220/P	65	65	377,5	250	76	196	118	313	420	762	475	712	105	337	
80-125/40/P	80	80	374	235	80	110	133	197	410	748	420	552	111	151	
80-125/110/P	80	80	374	235	80	110	133	256	410	748	420	638	111	225	
80-160/55/P	80	80	374	235	80	110	133	214	410	748	420	586	111	169	
80-160/75/P	80	80	374	235	80	110	133	256	410	748	420	600	111	207	
80-160/92/P	80	80	374	235	80	110	133	256	410	748	420	638	111	219	
80-160/110/P	80	80	374	235	80	110	133	256	410	748	420	638	111	225	
80-160/150/P	80	80	374	235	80	110	133	313	410	748	420	727	111	305	
80-160/185/P	80	80	374	235	80	110	133	313	410	748	420	727	111	327	
100-160/110/P	100	100	374	280	87	125	158	256	410	748	500	668	123	237	
100-160/150/P	100	100	374	280	87	125	158	313	410	748	500	757	123	317	
100-160/185/P	100	100	374	280	87	125	158	313	410	748	500	757	123	339	
100-160/220/P	100	100	374	280	87	125	158	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\_2p50-en\_a\_td

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



A0023-EN\_B\_DD

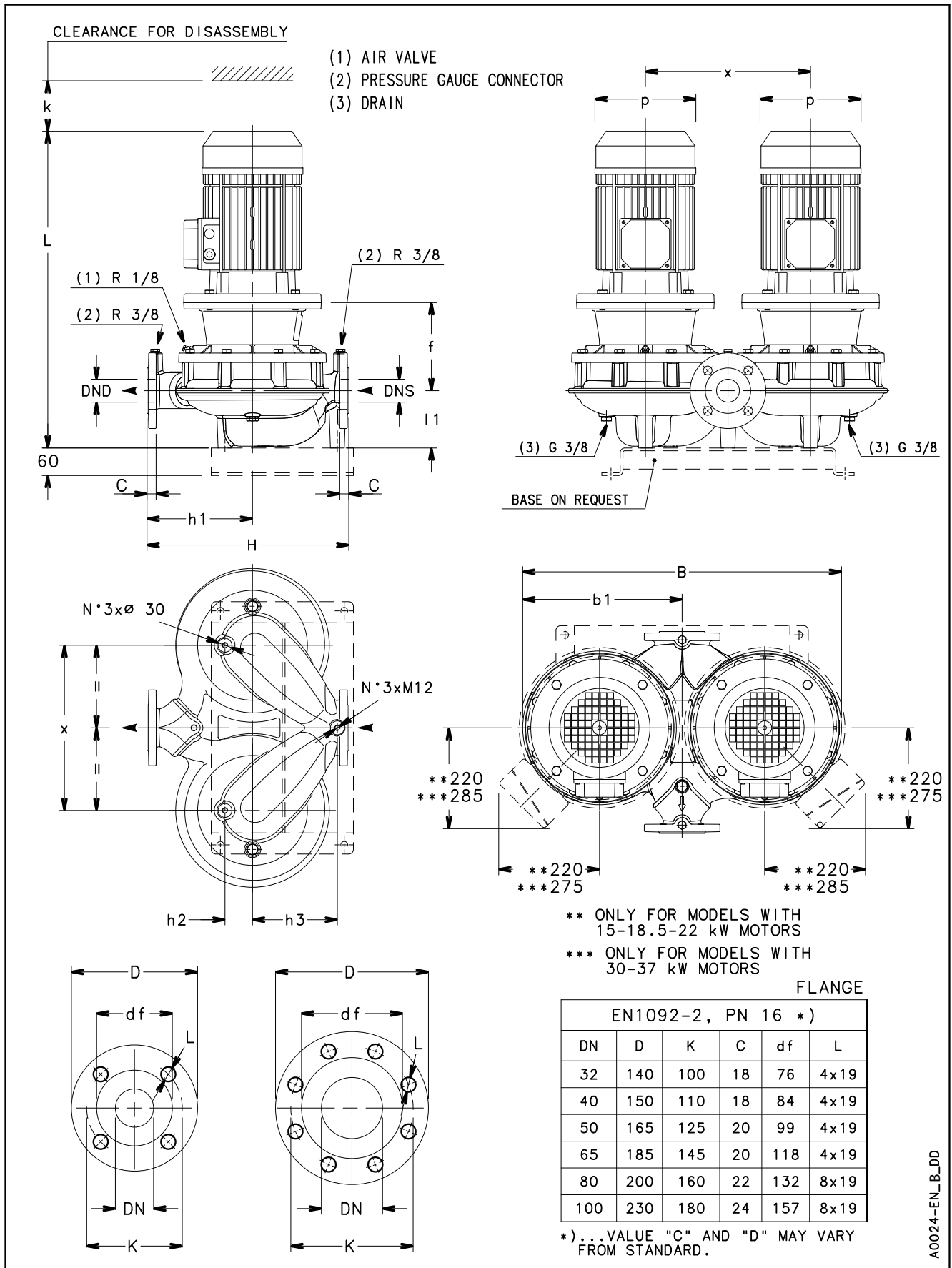
## LNTE 32, 40, 50, 65, 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE LNTE..4	DIMENSIONS (mm)									B	H	L	k	WEIGHT kg
	DND	DNS	b1	h1	h2	h3	l1	p	x					
32-160/02A/S	32	32	257	180	40	110	90	140	275	514	320	421	75	49
32-160/02/S	32	32	257	180	40	110	90	140	275	514	320	421	75	49
32-160/03/S	32	32	257	180	40	110	90	140	275	514	320	421	75	51
40-125/02B/S	40	40	274,5	180	52	110	100	140	310	549	320	431	94	51
40-125/02A/S	40	40	274,5	180	52	110	100	140	310	549	320	431	94	51
40-125/02/S	40	40	274,5	180	52	110	100	140	310	549	320	431	94	51
40-125/03/S	40	40	274,5	180	52	110	100	140	310	549	320	431	94	53
40-160/02/S	40	40	274,5	180	52	110	100	140	310	549	320	431	94	51
40-160/03/S	40	40	274,5	180	52	110	100	140	310	549	320	431	94	53
40-160/05/S	40	40	274,5	180	52	110	100	155	310	549	320	463	94	57
40-160/07/X	40	40	274,5	180	52	110	100	159	310	549	320	431	94	57
40-200/05A/S	40	40	372,5	220	65	193	110	155	410	745	440	471	104	89
40-200/05/S	40	40	372,5	220	65	193	110	155	410	745	440	471	104	89
40-200/07/X	40	40	372,5	220	65	193	110	159	410	745	440	439	104	95
40-200/11/P	40	40	372,5	220	65	193	110	174	410	745	440	506	104	107
40-250/15B/P	40	40	372,5	220	65	193	110	174	410	745	440	506	104	115
40-250/15A/P	40	40	372,5	220	65	193	110	174	410	745	440	506	104	115
40-250/15/P	40	40	372,5	220	65	193	110	174	410	745	440	506	104	115
40-250/22/P	40	40	372,5	220	65	193	110	214	410	745	440	530	104	135
50-125/02A/S	50	50	275	190	57	120	116	140	310	555	340	447	96	60
50-125/02/S	50	50	275	190	57	120	116	140	310	555	340	447	96	60
50-125/03/S	50	50	275	190	57	120	116	140	310	555	340	447	96	62
50-125/05/S	50	50	275	190	57	120	116	155	310	555	340	479	96	66
50-160/03/S	50	50	275	190	57	120	116	155	310	555	340	447	96	62
50-160/05/S	50	50	275	190	57	120	116	155	310	555	340	479	96	66
50-160/07/X	50	50	275	190	57	120	116	159	310	555	340	447	96	72
50-160/11/P	50	50	275	190	57	120	116	174	310	555	340	514	96	88
50-200/07/X	50	50	372,5	230	60	185	115	159	410	745	440	446	108	91
50-200/11A/P	50	50	372,5	230	60	185	115	174	410	745	440	513	108	119
50-200/11/P	50	50	372,5	230	60	185	115	174	410	745	440	513	108	119
50-200/15/P	50	50	372,5	230	60	185	115	174	410	745	440	513	108	127
50-250/15A/P	50	50	372,5	230	60	185	115	174	410	745	440	513	108	127
50-250/15/P	50	50	372,5	230	60	185	115	174	410	745	440	513	108	127
50-250/22A/P	50	50	372,5	230	60	185	115	214	410	745	440	537	108	147
50-250/22/P	50	50	372,5	230	60	185	115	214	410	745	440	537	108	147
50-250/30/P	50	50	372,5	230	60	185	115	214	410	745	440	568	108	155
65-125/03/S	65	65	323	190	75	140	122	140	360	646	360	459	100	74
65-125/05/S	65	65	323	190	75	140	122	155	360	646	360	491	100	78
65-125/07/X	65	65	323	190	75	140	122	159	360	646	360	459	100	84
65-125/11/P	65	65	323	190	75	140	122	174	360	646	360	526	100	96
65-160/07/X	65	65	323	190	75	140	122	159	360	646	360	459	94	84
65-160/11A/P	65	65	323	190	75	140	122	174	360	646	360	526	94	96
65-160/11/P	65	65	323	190	75	140	122	174	360	646	360	526	94	96
65-160/15/P	65	65	323	190	75	140	122	174	360	646	360	526	94	104
65-200/15A/P	65	65	377,5	250	76	196	118	174	420	762	475	516	105	135
65-200/15/P	65	65	377,5	250	76	196	118	174	420	762	475	516	105	135
65-200/22A/P	65	65	377,5	250	76	196	118	214	420	762	475	540	105	155
65-200/22/P	65	65	377,5	250	76	196	118	214	420	762	475	540	105	155
65-250/22A/P	65	65	377,5	250	76	196	118	214	420	762	475	540	105	155
65-250/22/P	65	65	377,5	250	76	196	118	214	420	762	475	540	105	155
65-250/30/P	65	65	377,5	250	76	196	118	214	420	762	475	571	105	163
65-250/40/P	65	65	377,5	250	76	196	118	214	420	762	475	600	105	201
80-125/05/S	80	80	374	235	80	110	133	155	410	748	420	496	111	117
80-125/15/P	80	80	374	235	80	110	133	174	410	748	420	531	111	143
80-160/15C/P	80	80	374	235	80	110	133	174	410	748	420	531	111	143
80-160/15B/P	80	80	374	235	80	110	133	174	410	748	420	531	111	143
80-160/15A/P	80	80	374	235	80	110	133	174	410	748	420	531	111	143
80-160/15/P	80	80	374	235	80	110	133	174	410	748	420	531	111	143
80-160/22A/P	80	80	374	235	80	110	133	214	410	748	420	555	111	163
80-160/22/P	80	80	374	235	80	110	133	214	410	748	420	555	111	163
100-160/15/P	100	100	374	280	87	125	158	174	410	748	500	561	123	155
100-160/22A/P	100	100	374	280	87	125	158	214	410	748	500	585	123	175
100-160/22/P	100	100	374	280	87	125	158	214	410	748	500	585	123	175
100-160/30/P	100	100	374	280	87	125	158	214	410	748	500	616	123	183

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

LNTE-32-100\_4p50-en\_a\_td

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



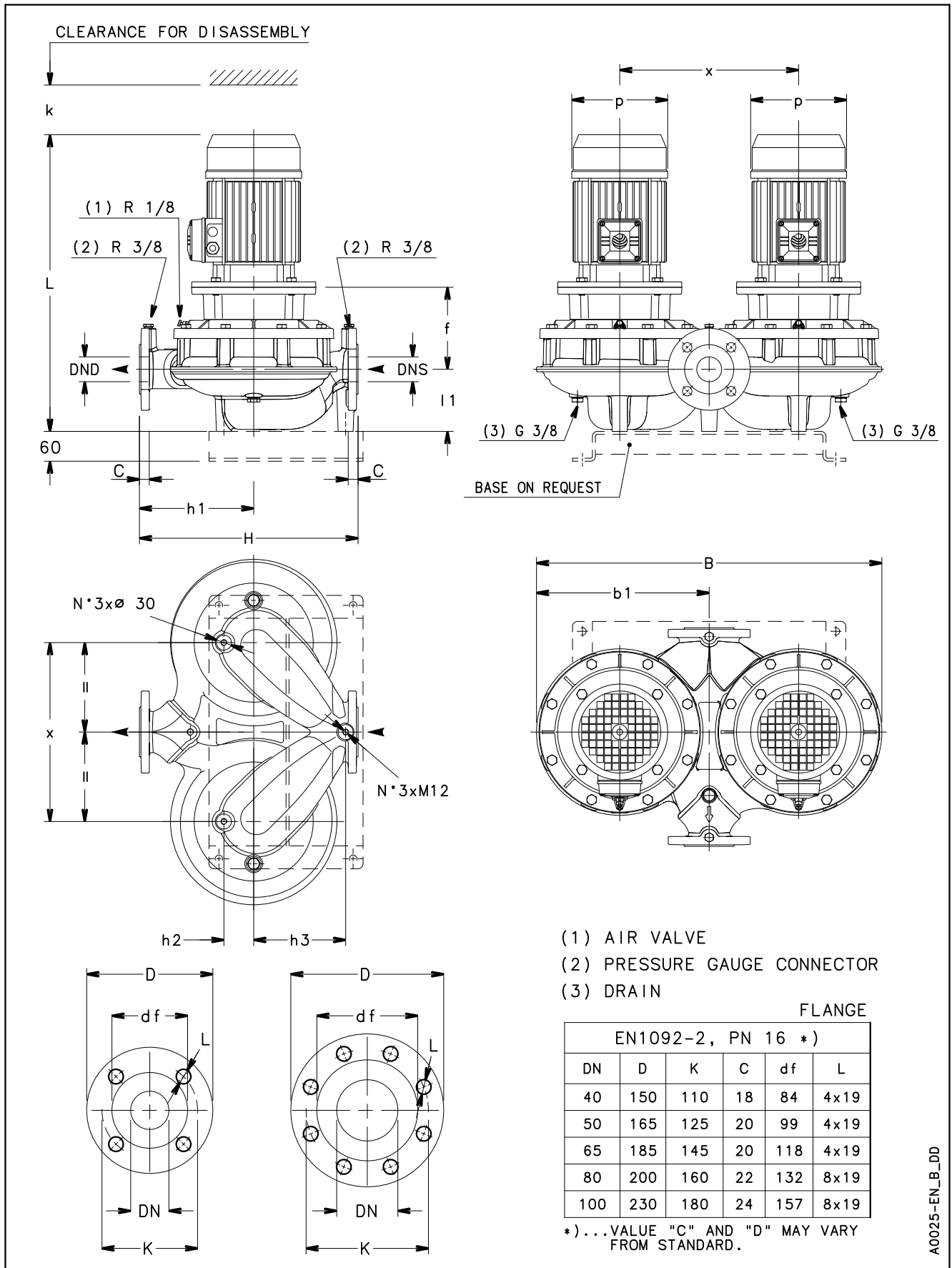
## LNTS 32, 40, 50, 65 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE LNTS..2	DIMENSIONS (mm)										B	H	L	k	WEIGHT kg
	DND	DNS	b1	f	h1	h2	h3	l1	p	x					
32-160/07A/S	32	32	257	155	180	40	110	90	155	275	514	320	508	75	59
32-160/07/S	32	32	257	155	180	40	110	90	155	275	514	320	508	75	59
32-160/11/S	32	32	257	155	180	40	110	90	155	275	514	320	508	75	61
32-160/15/S	32	32	257	155	180	40	110	90	155	275	514	320	508	75	69
32-160/22/P	32	32	257	155	180	40	110	90	174	275	514	320	543	75	83
32-160/30/P	32	32	257	165	180	40	110	90	174	275	514	320	553	75	93
40-125/11/S	40	40	274,5	155	180	52	110	100	155	310	549	320	518	94	63
40-125/15/S	40	40	274,5	155	180	52	110	100	155	310	549	320	518	94	71
40-125/22/P	40	40	274,5	155	180	52	110	100	174	310	549	320	553	94	85
40-125/30/P	40	40	274,5	165	180	52	110	100	174	310	549	320	563	94	95
40-160/22/P	40	40	274,5	155	180	52	110	100	174	310	549	320	553	94	85
40-160/30/P	40	40	274,5	165	180	52	110	100	174	310	549	320	563	94	95
40-160/40/P	40	40	274,5	165	180	52	110	100	197	310	549	320	584	94	101
40-160/55/P	40	40	274,5	192	180	52	110	100	214	310	549	320	667	94	127
40-200/30/P	40	40	372,5	163	220	65	193	110	174	410	745	440	571	104	127
40-200/40/P	40	40	372,5	163	220	65	193	110	197	410	745	440	592	104	133
40-200/55/P	40	40	372,5	190	220	65	193	110	214	410	745	440	675	104	159
40-200/75/P	40	40	372,5	190	220	65	193	110	256	410	745	440	667	104	197
40-250/75/P	40	40	372,5	190	220	65	193	110	256	410	745	440	667	104	197
40-250/110A/P	40	40	372,5	220	220	65	193	110	256	410	745	440	758	104	231
40-250/110/P	40	40	372,5	220	220	65	193	110	256	410	745	440	758	104	231
40-250/150/P	40	40	372,5	220	220	65	193	110	313	410	745	440	824	104	297
50-125/15/S	50	50	275	155	190	57	120	116	155	310	555	340	534	96	80
50-125/22/P	50	50	275	155	190	57	120	116	174	310	555	340	569	96	94
50-125/30/P	50	50	275	165	190	57	120	116	174	310	555	340	579	96	104
50-125/40/P	50	50	275	165	190	57	120	116	197	310	555	340	600	96	110
50-160/30/P	50	50	275	165	190	57	120	116	174	310	555	340	579	96	104
50-160/40/P	50	50	275	165	190	57	120	116	197	310	555	340	600	96	110
50-160/55/P	50	50	275	192	190	57	120	116	214	310	555	340	683	96	135
50-160/75/P	50	50	275	192	190	57	120	116	256	310	555	340	675	96	174
50-200/55/P	50	50	372,5	192	230	60	185	115	214	410	745	440	682	108	171
50-200/75/P	50	50	372,5	192	230	60	185	115	256	410	745	440	674	108	209
50-200/110A/P	50	50	372,5	222	230	60	185	115	256	410	745	440	765	108	243
50-200/110/P	50	50	372,5	222	230	60	185	115	256	410	745	440	765	108	243
50-250/110A/P	50	50	372,5	222	230	60	185	115	256	410	745	440	765	108	243
50-250/110/P	50	50	372,5	222	230	60	185	115	256	410	745	440	765	108	243
50-250/150/P	50	50	372,5	222	230	60	185	115	313	410	745	440	831	108	309
50-250/185/P	50	50	372,5	222	230	60	185	115	313	410	745	440	831	108	327
50-250/220/P	50	50	372,5	222	230	60	185	115	313	410	745	440	831	108	349
65-125/30/P	65	65	323	171	190	75	140	122	174	360	646	360	591	100	116
65-125/40/P	65	65	323	171	190	75	140	122	197	360	646	360	612	100	122
65-125/55/P	65	65	323	198	190	75	140	122	214	360	646	360	695	100	149
65-125/75/P	65	65	323	198	190	75	140	122	256	360	646	360	687	100	187
65-160/55/P	65	65	323	198	190	75	140	122	214	360	646	360	695	94	149
65-160/75/P	65	65	323	198	190	75	140	122	256	360	646	360	687	94	187
65-160/110A/P	65	65	323	228	190	75	140	122	256	360	646	360	778	94	230
65-160/110/P	65	65	323	228	190	75	140	122	256	360	646	360	778	94	230
65-200/110A/P	65	65	377,5	222	250	76	196	118	256	420	762	475	768	105	251
65-200/110/P	65	65	377,5	222	250	76	196	118	256	420	762	475	768	105	251
65-200/150/P	65	65	377,5	222	250	76	196	118	313	420	762	475	834	105	317
65-200/185/P	65	65	377,5	222	250	76	196	118	313	420	762	475	834	105	335
65-250/150/P	65	65	377,5	222	250	76	196	118	313	420	762	475	834	105	317
65-250/185/P	65	65	377,5	222	250	76	196	118	313	420	762	475	834	105	335
65-250/220/P	65	65	377,5	222	250	76	196	118	313	420	762	475	834	105	357
65-250/300/W	65	65	377,5	228	250	76	196	118	402	420	762	475	1003	105	575

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

LNTS-32-65\_2p50-en\_a\_td

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



A0025-EN\_B\_DD



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

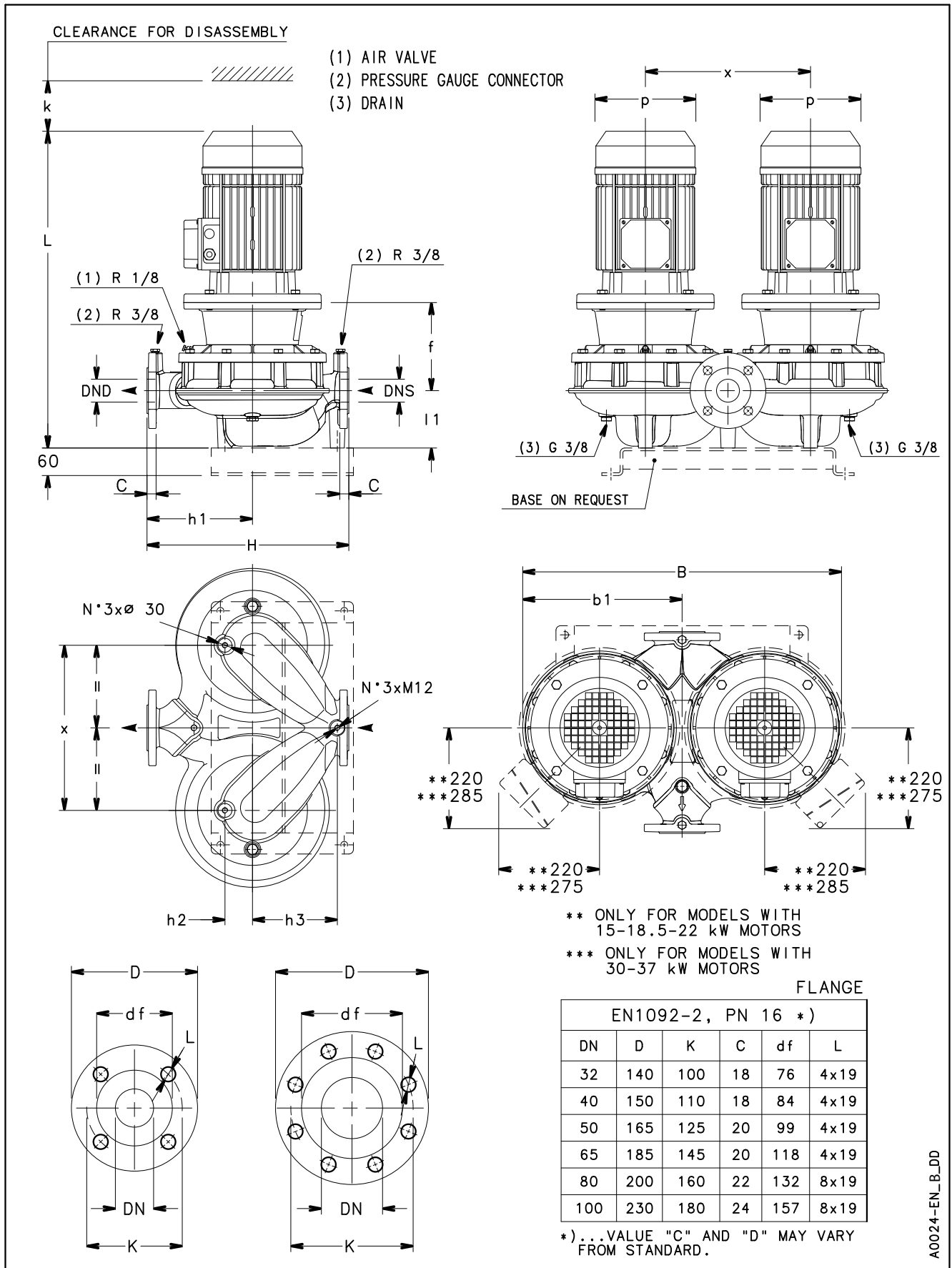
PUMP TYPE LNTS..4	DIMENSIONS (mm)										B	H	L	k	WEIGHT kg
	DND	DNS	b1	f	h1	h2	h3	l1	p	x					
40-160/05/S	40	40	274,5	155	180	52	110	100	155	310	549	320	518	94	63
40-160/07/X	40	40	274,5	155	180	52	110	100	159	310	549	320	486	94	69
40-200/05A/S	40	40	372,5	152	220	65	193	110	155	410	745	440	526	104	95
40-200/05/S	40	40	372,5	152	220	65	193	110	155	410	745	440	526	104	95
40-200/07/X	40	40	372,5	152	220	65	193	110	159	410	745	440	494	104	101
40-200/11/P	40	40	372,5	152	220	65	193	110	174	410	745	440	561	104	113
40-250/11/P	40	40	372,5	152	220	65	193	110	174	410	745	440	561	104	113
40-250/15A/P	40	40	372,5	152	220	65	193	110	174	410	745	440	561	104	113
40-250/15/P	40	40	372,5	152	220	65	193	110	174	410	745	440	561	104	121
40-250/22/P	40	40	372,5	162	220	65	193	110	214	410	745	440	595	104	143
50-125/05/S	50	50	275	155	190	57	120	116	155	310	555	340	534	96	72
50-160/05/S	50	50	275	155	190	57	120	116	155	310	555	340	534	96	72
50-160/07/X	50	50	275	155	190	57	120	116	159	310	555	340	502	96	78
50-160/11/P	50	50	275	155	190	57	120	116	174	310	555	340	569	96	90
50-200/07/X	50	50	372,5	155	230	60	185	115	159	410	745	440	501	108	113
50-200/11A/P	50	50	372,5	155	230	60	185	115	174	410	745	440	568	108	125
50-200/11/P	50	50	372,5	155	230	60	185	115	174	410	745	440	568	108	125
50-200/15/P	50	50	372,5	155	230	60	185	115	174	410	745	440	568	108	133
50-250/11/P	50	50	372,5	155	230	60	185	115	174	410	745	440	568	108	125
50-250/15/P	50	50	372,5	155	230	60	185	115	174	410	745	440	568	108	133
50-250/22A/P	50	50	372,5	165	230	60	185	115	214	410	745	440	602	108	154
50-250/22/P	50	50	372,5	165	230	60	185	115	214	410	745	440	602	108	154
50-250/30/P	50	50	372,5	165	230	60	185	115	214	410	745	440	633	108	163
65-125/05/S	65	65	323	161	190	75	140	122	155	360	646	360	546	100	85
65-125/07/X	65	65	323	161	190	75	140	122	159	360	646	360	514	100	91
65-125/11/P	65	65	323	161	190	75	140	122	174	360	646	360	581	100	103
65-160/07/X	65	65	323	161	190	75	140	122	159	360	646	360	514	94	91
65-160/11A/P	65	65	323	161	190	75	140	122	174	360	646	360	581	94	103
65-160/11/P	65	65	323	161	190	75	140	122	174	360	646	360	581	94	103
65-160/15/P	65	65	323	161	190	75	140	122	174	360	646	360	581	94	111
65-200/11/P	65	65	377,5	155	250	76	196	118	174	420	762	475	571	105	133
65-200/15/P	65	65	377,5	155	250	76	196	118	174	420	762	475	571	105	141
65-200/22A/P	65	65	377,5	165	250	76	196	118	214	420	762	475	605	105	163
65-200/22/P	65	65	377,5	165	250	76	196	118	214	420	762	475	605	105	163
65-250/22A/P	65	65	377,5	165	250	76	196	118	214	420	762	475	605	105	163
65-250/22/P	65	65	377,5	165	250	76	196	118	214	420	762	475	605	105	163
65-250/30/P	65	65	377,5	165	250	76	196	118	214	420	762	475	636	105	171
65-250/40/P	65	65	377,5	165	250	76	196	118	214	420	762	475	665	105	209

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

LNTS-40-50-65\_4p50-en\_c\_td

# LNTS 80, 100 SERIES

## DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES



A0024-EN\_B\_DD

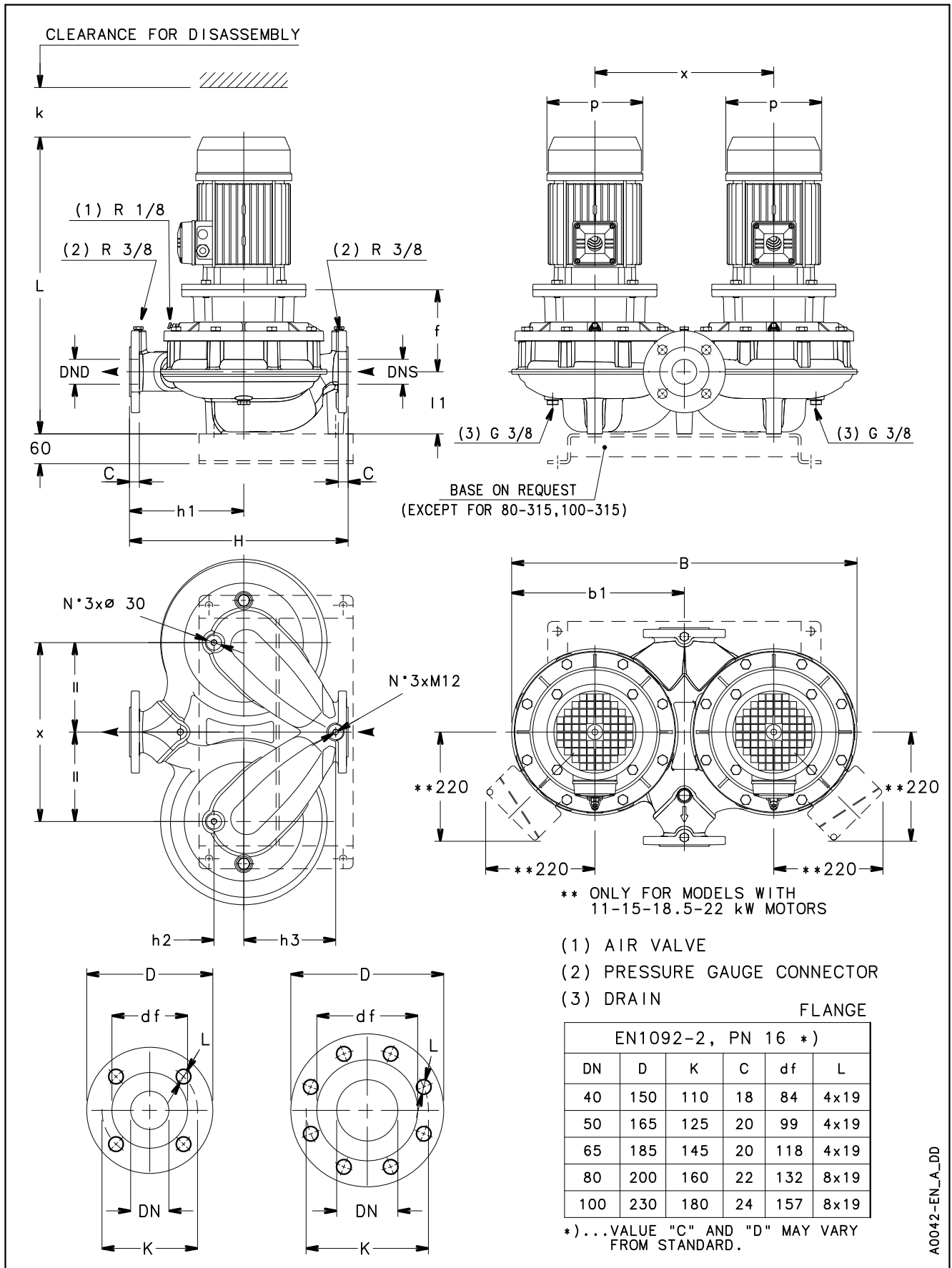
## LNTS 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE LNTS..2	DIMENSIONS (mm)										B	H	L	k	WEIGHT kg
	DND	DNS	b1	f	h1	h2	h3	l1	p	x					
80-125/40/P	80	80	374	165	235	80	110	133	197	410	748	420	617	111	152
80-125/110/P	80	80	374	222	235	80	110	133	256	410	748	420	783	111	259
80-160/55/P	80	80	374	192	235	80	110	133	214	410	748	420	700	111	178
80-160/75/P	80	80	374	192	235	80	110	133	256	410	748	420	692	111	216
80-160/110A/P	80	80	374	222	235	80	110	133	256	410	748	420	783	111	259
80-160/110/P	80	80	374	222	235	80	110	133	256	410	748	420	783	111	259
80-160/150/P	80	80	374	222	235	80	110	133	313	410	748	420	849	111	325
80-160/185/P	80	80	374	222	235	80	110	133	313	410	748	420	849	111	343
80-200/110/P	80	80	377,5	240	275	85	140	132	256	420	766	500	800	130	259
80-200/150/P	80	80	377,5	240	275	85	140	132	313	420	766	500	866	130	325
80-200/185/P	80	80	377,5	240	275	85	140	132	313	420	766	500	866	130	343
80-200/220/P	80	80	377,5	240	275	85	140	132	313	420	766	500	866	130	365
80-200/300/W	80	80	377,5	246	275	85	140	132	402	420	766	500	1035	130	583
80-250/220/P	80	80	377,5	240	275	85	140	132	313	420	766	500	866	130	365
80-250/300/W	80	80	377,5	246	275	85	140	132	402	420	766	500	1035	130	583
80-250/370/W	80	80	377,5	246	275	85	140	132	402	420	766	500	1035	130	597
100-160/110/P	100	100	374	227	280	87	125	158	256	410	748	500	813	123	271
100-160/150/P	100	100	374	227	280	87	125	158	313	410	748	500	879	123	337
100-160/185/P	100	100	374	227	280	87	125	158	313	410	748	500	879	123	355
100-160/220/P	100	100	374	227	280	87	125	158	313	410	748	500	879	123	377
100-200/220/P	100	100	381	240	300	90	160	179	313	420	783	550	913	152	379
100-200/300/W	100	100	381	246	300	90	160	179	402	420	783	550	1082	152	579
100-200/370/W	100	100	381	246	300	90	160	179	402	420	783	550	1082	152	593
100-250/370/W	100	100	381	246	300	90	160	179	402	420	783	550	1082	152	593

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

LNTS-80-100\_2p50-en\_c\_td

**LNTS 80, 100 SERIES**  
**DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES**



A0042-EN\_A\_DD

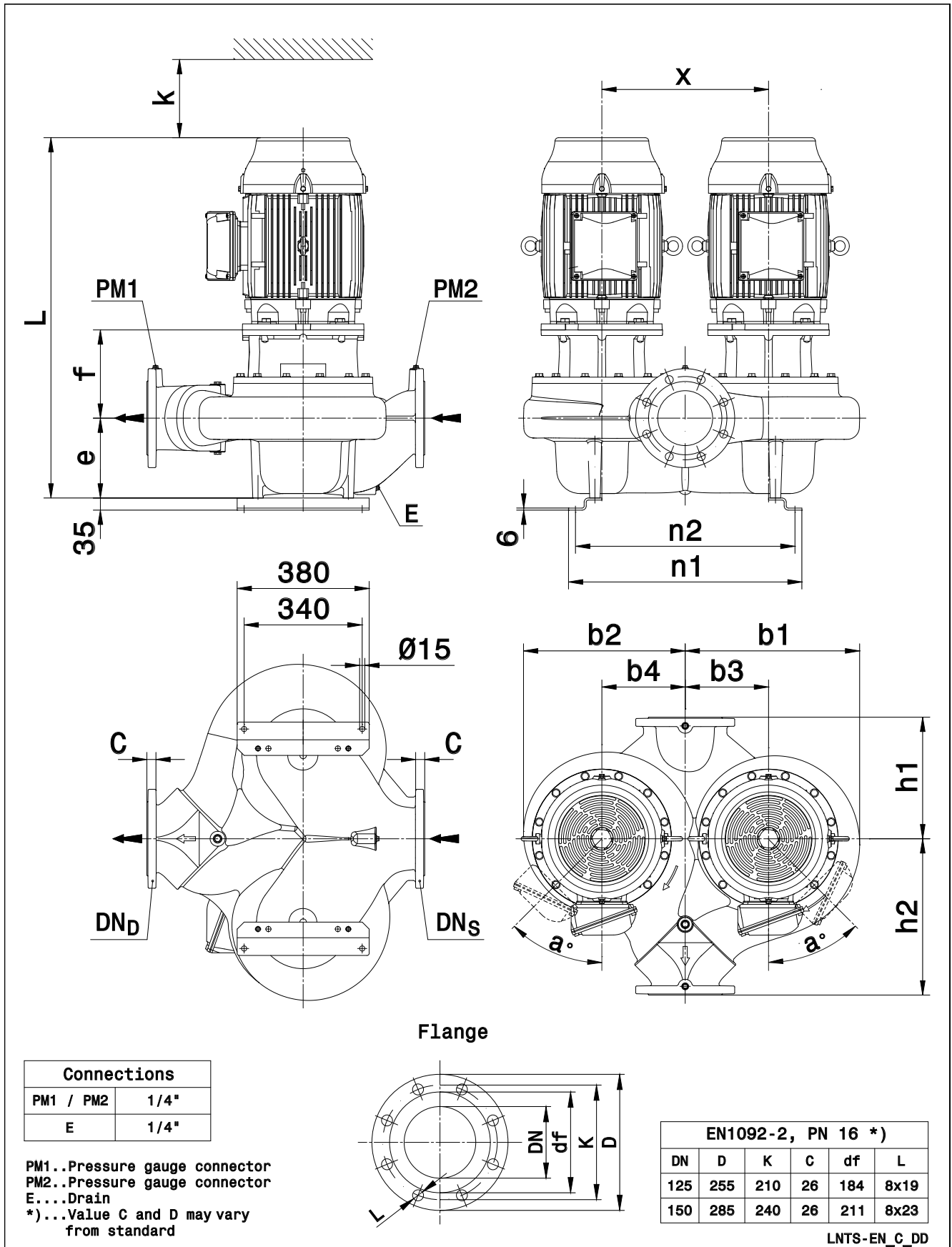
## LNTS 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE LNTS..4	DIMENSIONS (mm)										B	H	L	k	WEIGHT kg
	DND	DNS	b1	f	h1	h2	h3	l1	p	x					
80-125/05/S	80	80	374	155	235	80	110	133	155	410	748	420	551	111	114
80-125/15/P	80	80	374	155	235	80	110	133	174	410	748	420	586	111	149
80-160/11B/P	80	80	374	155	235	80	110	133	174	410	748	420	586	111	141
80-160/11A/P	80	80	374	155	235	80	110	133	174	410	748	420	586	111	141
80-160/11/P	80	80	374	155	235	80	110	133	174	410	748	420	586	111	141
80-160/15/P	80	80	374	155	235	80	110	133	174	410	748	420	586	111	149
80-160/22A/P	80	80	374	165	235	80	110	133	214	410	748	420	620	111	171
80-160/22/P	80	80	374	165	235	80	110	133	24	410	748	420	620	111	171
80-200/15/P	80	80	377,5	173	275	85	140	132	174	420	766	500	603	130	170
80-200/22A/P	80	80	377,5	183	275	85	140	132	214	420	766	500	637	130	191
80-200/22/P	80	80	377,5	183	275	85	140	132	214	420	766	500	637	130	191
80-200/30/P	80	80	377,5	183	275	85	140	132	214	420	766	500	668	130	199
80-200/40/P	80	80	377,5	183	275	85	140	132	214	420	766	500	697	130	237
80-250/30/P	80	80	377,5	183	275	85	140	132	214	420	766	500	668	130	179
80-250/40/P	80	80	377,5	183	275	85	140	132	214	420	766	500	697	130	217
80-250/55A/P	80	80	377,5	210	275	85	140	132	256	420	766	500	747	130	239
80-250/55/P	80	80	377,5	210	275	85	140	132	256	420	766	500	747	130	239
80-250/75/P	80	80	377,5	210	275	85	140	132	256	420	766	500	747	130	247
80-315/75/P	80	80	433	210	330	90	140	145	256	420	851	620	760	140	323
80-315/110/P	80	80	433	240	330	90	140	145	313	420	851	620	879	140	452
80-315/150/P	80	80	433	240	330	90	140	145	313	420	851	620	879	140	460
100-160/15/P	100	100	374	160	280	87	125	158	174	410	748	500	616	123	162
100-160/22A/P	100	100	374	170	280	87	125	158	214	410	748	500	650	123	183
100-160/22/P	100	100	374	170	280	87	125	158	214	410	748	500	650	123	183
100-160/30/P	100	100	374	170	280	87	125	158	214	410	748	500	681	123	191
100-200/30/P	100	100	381	183	300	90	160	179	214	420	783	550	715	152	193
100-200/40/P	100	100	381	183	300	90	160	179	214	420	783	550	744	152	231
100-200/55A/P	100	100	381	210	300	90	160	179	256	420	783	550	794	152	253
100-200/55/P	100	100	381	210	300	90	160	179	256	420	783	550	794	152	253
100-250/55A/P	100	100	381	210	300	90	160	179	256	420	783	550	794	152	253
100-250/55/P	100	100	381	210	300	90	160	179	256	420	783	550	794	152	253
100-250/75/P	100	100	381	210	300	90	160	179	256	420	783	550	794	152	261
100-250/110/P	100	100	381	240	300	90	160	179	313	420	783	550	913	152	371
100-315/110/P	100	100	453	240	360	110	155	175	313	420	883	670	909	140	483
100-315/150/P	100	100	453	240	360	110	155	175	313	420	883	670	909	140	491
100-315/185/W	100	100	453	240	360	110	155	175	360	420	883	670	969	140	569
100-315/220/W	100	100	453	240	360	110	155	175	360	420	883	670	1007	140	603

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

LNTS-80-100\_4p50-en\_c\_td

**LNTS 125, 150 SERIES  
DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES**



## LNTS 125, 150 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE LNTS..4	DIMENSIONS (mm)															WEIGHT (kg)	
	DND	DNS	a°	e	f	h1	h2	n1	n2	b1	b2	b3	b4	k	x	L	G
125-160/22/P	125	125	0	200	183	280	340	572	532	412	365	235	160	160	395	705	233
125-160/30/P	125	125	0	200	183	280	340	572	532	412	365	235	160	160	395	736	246
125-160/40/P	125	125	0	200	183	280	340	572	532	412	365	235	160	160	395	765	289
125-200/55/P	125	125	0	200	210	280	340	572	532	412	365	235	160	160	395	815	309
125-200/75/P	125	125	0	200	210	280	340	572	532	412	365	235	160	160	395	815	319
125-250/75/P	125	125	0	230	215	350	450	652	612	480	516	250	250	250	500	850	403
125-250/110/P	125	125	45	230	245	350	450	652	612	480	516	250	250	250	500	969	447
125-315/150/P	125	125	45	230	245	350	450	652	612	480	516	250	250	250	500	969	565
125-315/185/W	125	125	45	230	245	350	450	652	612	480	516	250	250	250	500	1029	667
125-315/220/W	125	125	45	230	245	350	450	652	612	480	516	250	250	250	500	1067	703
125-315/300/W	125	125	45	230	251	350	450	652	612	480	516	250	250	250	500	1138	802
150-200/55/P	150	150	0	230	225	375	425	672	632	430	478	235	235	235	470	860	397
150-200/75/P	150	150	0	230	225	375	425	672	632	430	478	235	235	235	470	860	406
150-200/110/P	150	150	45	230	255	375	425	672	632	430	478	235	235	235	470	979	450
150-250/110/P	150	150	45	230	240	350	450	632	592	416	465	218	218	218	435	964	424
150-250/150/P	150	150	45	230	240	350	450	632	592	416	465	218	218	218	435	964	508
150-315/185/W	150	150	30	230	254	350	450	672	632	466	503	240	240	240	480	1038	669
150-315/220/W	150	150	30	230	254	350	450	672	632	466	503	240	240	240	480	1076	705
150-315/300/W	150	150	30	230	254	350	450	672	632	466	503	240	240	240	480	1141	797
150-315/370/W	150	150	30	230	284	350	450	672	632	466	503	240	240	240	480	1260	1113

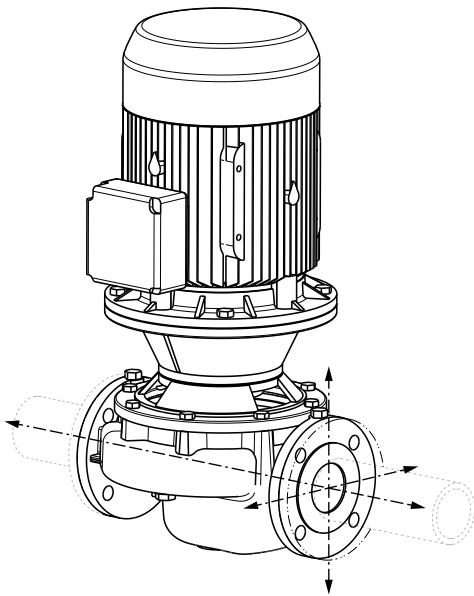
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

LNTS-125-150\_4p50-en\_d\_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

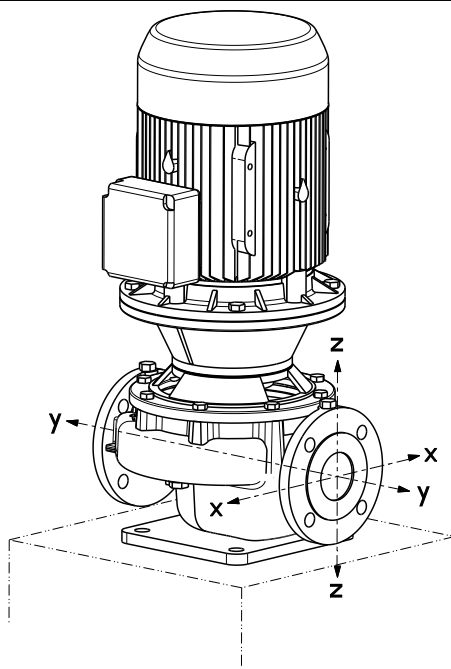
Size	DNS-DND	Suction - Discharge							
		Fx max [N]	Fy max [N]	Fz max [N]	ΣF max [N]	Mx max [Nm]	My max [Nm]	Mz max [Nm]	ΣM max [Nm]
32-160	32	450	530	430	820	550	380	430	800
40-125	40	550	630	500	980	650	450	530	960
40-160	40	550	630	500	980	650	450	530	960
40-200	40	550	630	500	980	650	450	530	960
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



## 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	Suction - Discharge								
	DNS-DND	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



# **e-LNT WITH VARIABLE FREQUENCY DRIVE**

## ECODESIGN DIRECTIVE (ErP)

The Ecodesign directive was put in place in 2011 and introduced minimum requirements for the efficiency of **AC motors and pumps**. Over the last few years, these requirements have been gradually intensified.

Motors are classified based on their mode of operation. Fixed speed motors are classified according to IEC 60034-30-1 and the minimum acceptable level of efficiency is IE3 since January 2017 for 0.75 to 375 kW rated powers 3 phase motors, according to the Directive 2009/125/EC.

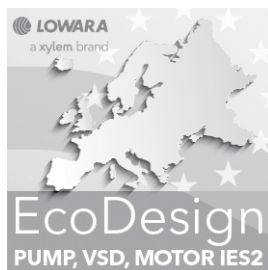
Variable speed motors (not covered in IEC 60034-30-1), which are not designed to operate direct on-line, are classified according to the technical specification IEC/TS 60034-30-2. This Technical Specification introduced the “ultra-premium” **IE5 efficiency performance**, the best efficiency existing level for this kind of motors.

In 2014, with the standard EN 50598, there was a switch in the definition of efficiency class from an individual component approach towards an overall system one; which is the basic point for the “Extended product approach” (EPA).

Taking this concept further, the EN50598-2 introduced IES efficiency classes for frequency converters + motor systems (known as power drive systems-PDS) with power rating **from 0.12 kW to 1000kW and from 100V to 1000V**. For Power Drive System (PDS) the defined efficiency classes are IES0, IES1, IES2. If a PDS has 20% greater losses than the reference value of IES1 then it is classified as IES0; if it has 20% lower losses than the reference value of IES1 then it is classified as IES2.

These efficiency classes are the same adopted subsequently by the international standard IEC 61800-9-2.

- **With the HYDROVAR connected to a Lowara IE3 motor, the system achieves the highest IES class – IES2.**
- **With the eSM drive, which powers an IE5 permanent magnet motor, the system surpasses the highest IES class – IES2.**



**The e-LNT pump series is therefore already ready for the 2020 EU Ecodesign energy efficiency objectives.**

# **e-LNT..H**

# **e-LNT WITH HYDROVAR**

## e-LNT..H SERIES e-LNT WITH HYDROVAR

### Background and context

For all pumping needs in commercial or residential building and in industry applications, the demand for intelligent pumping systems is constantly growing. Controlled systems offer many advantages: reduced operating costs for the lifetime of the pump, lower environmental impact, longer lifetime of piping systems and networks.

For this reason, Lowara has developed the e-LNT..H: an intelligent pumping system which assures high level performance with energy consumption tailored to the system's demand.

According to the IEC 61800-9-2 standard the e-LNT..H is an IES2 power drive system, the highest efficiency class defined for this category.

### Benefits of e-LNT with HYDROVAR

**Saving:** e-LNT..H transforms the e-LNT pumps into variable speed intelligent pumping systems. Thanks to the HYDROVAR, the speed of each pump varies so as to maintain a constant flow, a constant pressure, or a differential pressure. In doing so, at any point in time, the pump only receives the energy required. This in turns allows for considerable savings, especially for systems that have varying loads throughout the day.

**Easy installation and space-saving:** e-LNT..H saves time and space during installation. The Hydrovar is delivered already mounted on the motor (for models up to 22kW). The hydrovar is kept cool by the motor fan and does not require a control panel. In order to function, only fuses on the supply line are needed (Check your local electrical installation regulations).

**Standard motors:** e-LNT..H models are fitted with three-phase standard TEFC motors with insulation class 155 (F).

### Identification code:

e-LNT..H models are identified by the letter "H" and the last two characters.

Examples:

LNEEH50-125/22/P25VCS4 /2

LNEEH50-125/22/P25VCS4 /3

LNEEH50-125/22/P25VCS4 /4X

**H** = with integrated HYDROVAR

**/2** = HYDROVAR HVL2.022 1~ 208-240 V (50/60 Hz)

**/3** = HYDROVAR HVL3.022 3~ 208-240 V (50/60 Hz)

**/4** = HYDROVAR HVL4.022 3~ 380-460 V (50/60 Hz)

### Key Features of the Hydrovar

- **No need for additional pressure sensors:**

The e-LNT..H pumps are fitted as standard with two pressure transmitters for each Hydrovar, four in all, normally mounted on the flanges.

- **No need for special pumps or motors.**

- **e-LNT..H is already pre-wired.**

- **No need for IN LINE filters.**

Hydrovar already includes the THDi filter embedded as standard.

- **No need for bypass or safety systems:**

The e-LNT..H will immediately switch off when demand drops to zero or when it exceeds maximum pump capacity; thus making installation of additional safety devices unnecessary.

- **Anti-condensation device:**

The HYDROVAR is fitted with anti-condensation devices which switch on when the pump is in standby in order to prevent condensation forming in the unit.



## e-LNT..H SERIES e-LNT WITH HYDROVAR

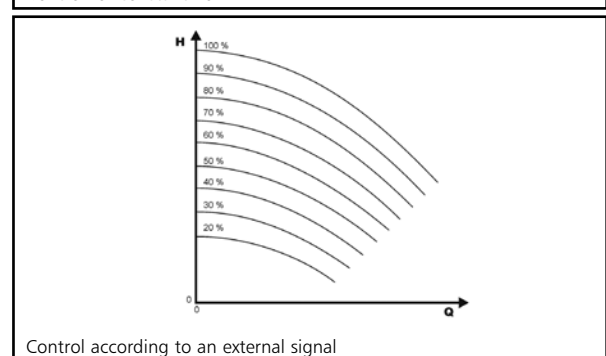
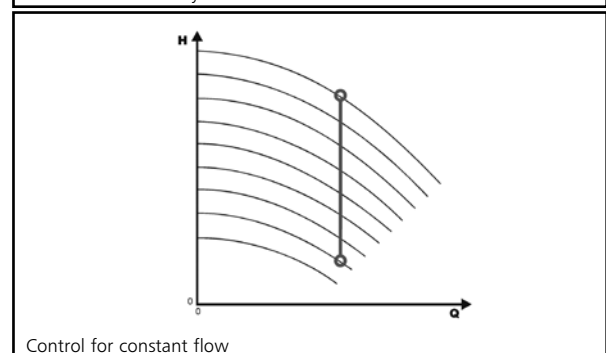
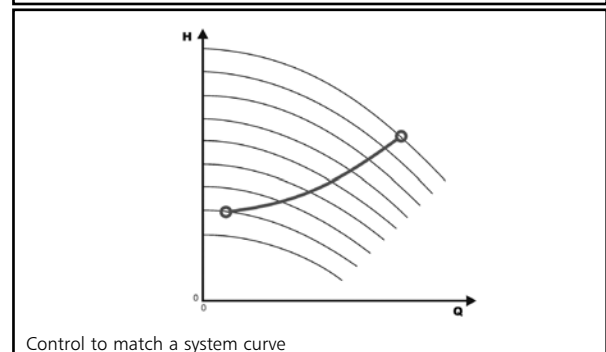
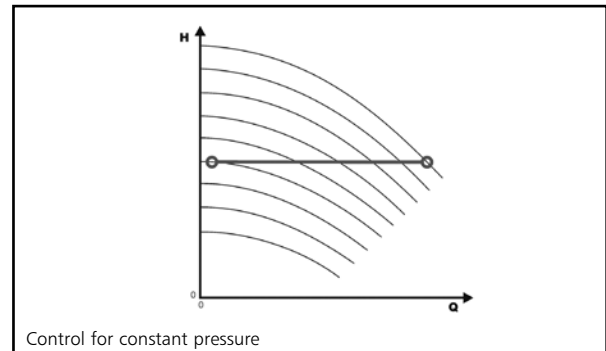
The basic function of the HYDROVAR device is to control the pump to meet the system demands.

### HYDROVAR performs these functions by:

- 1) Measuring the system pressure or flow via a transmitter mounted on the pump's delivery side.
- 2) Calculating the motor speed to maintain the correct flow or pressure.
- 3) Sending out a signal to the pump to start the motor, increase speed, decrease speed or stop.
- 4) In the case of multiple pump installations, HYDROVAR will automatically provide for the cyclic changeover of the pumps' starting sequence.

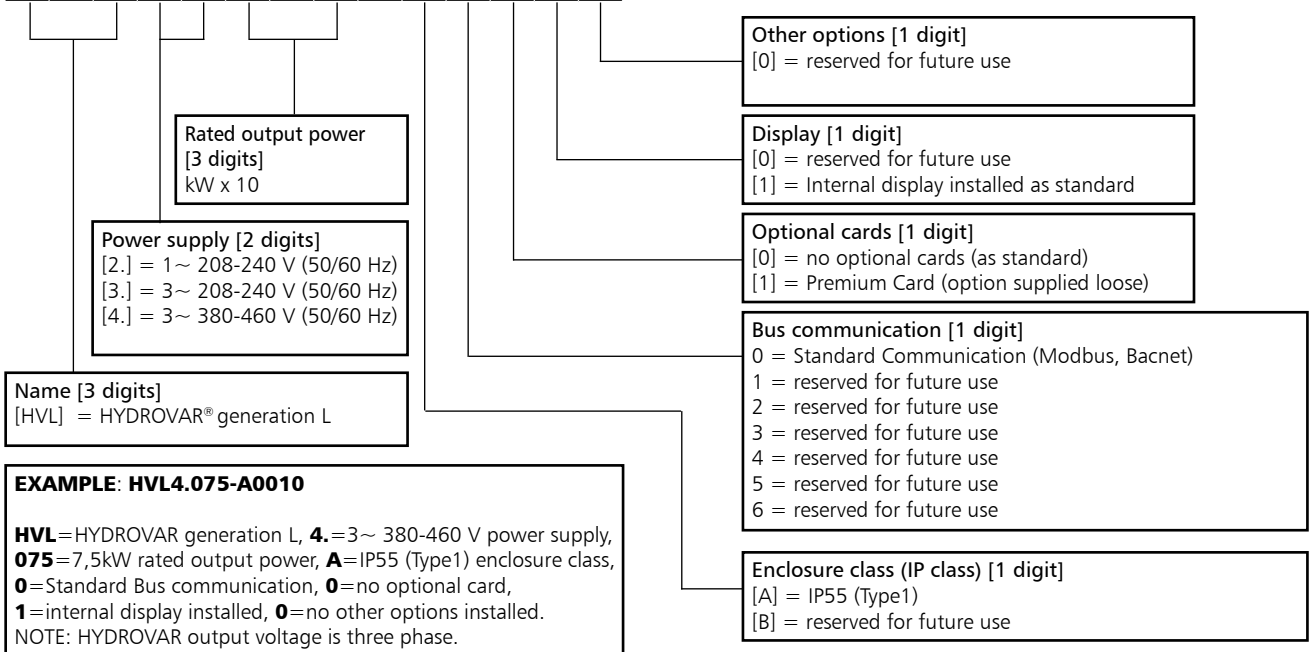
In addition to these basic functions, HYDROVAR can perform controls only manageable by the most advanced computerized control systems. Some examples are:

- Stop the pump(s) at zero demand.
- Stop the pump(s) in case of water failure on the suction side (protection against dry running).
- Stop the pump if the required delivery exceeds the pump's capacity (protection against cavitation caused by excessive demand), or automatically switch on the next pump in a multiple series.
- Protect the pump and motor from over-voltage, under-voltage, overload, and earth fault.
- Vary the pump speed: acceleration and deceleration time.
- Compensate for increased flow resistance at high flow rates.
- Conduct automatic tests at set intervals.
- Monitor the converter and motor operating hours.
- Display the energy consumption (kWh).
- Display all functions on an LCD in different languages (Italian, English, French, German, Spanish, Portuguese, Dutch, etc...).
- Send a signal to a remote control system which is proportional to the pressure and frequency.
- Communicate with external control system via Modbus (RS 485 interface) and Bacnet as standard.



## HYDROVAR HVL IDENTIFICATION CODE

**H V L 4 . 0 7 5 - A 0 0 1 0**



## DIMENSIONS AND WEIGHTS



TYPE	MODELS			DIMENSIONS (mm)				WEIGHT Kg
	/2	/3	/4	L	B	H	X	
SIZE A	HVL2.015 ÷ 2.022	HVL3.015 ÷ 3.022	HVL4.015 ÷ 4.040	216	205	170	243	5,6
SIZE B	HVL2.030 ÷ 2.040	HVL3.030 ÷ 3.055	HVL4.055 ÷ 4.110	276	265	185	305	10,5
SIZE C	-	HVL3.075 ÷ 3.110	HVL4.150 ÷ 4.220	366	337	200	407	15,6

HVL\_dim-en\_b\_td



## HYDROVAR HVL EMC COMPATIBILITY

### EMC requirements

HYDROVAR fulfills the product standard EN61800-3:2004 + A1:2012, which defines categories (C1 to C4) for device application areas.

Depending on the motor cable length, a classification of HYDROVAR by category (based on EN61800-3) is reported in the following tables:

HVL	HYDROVAR classification by categories based on EN61800-3
2.015 ÷ 2.040	C1 (*)
3.015 ÷ 3.110	C2 (*)
4.015 ÷ 4.220	C2 (*)

(\*) 0,75 motor cable length; contact Xylem for further information

En-Rev\_A

## CARD

### Premium Card HYDROVAR

For the e-LNE..H and e-LNT..H series, the Premium Card comes fitted as standard on the standalone HYDROVAR. This allows to control up to five fix speed pumps via an external panel.

The Premium Card will allow additional features listed below:

- 2 additional Analog Inputs
- 2 Analog Outputs
- 1 additional digital input
- 5 relays.



## OPTIONAL COMPONENTS

### Sensors

The following sensors are available for HYDROVAR:

- Pressure-transducer
- Differential pressure-transducer
- Temperature-sensor
- Flow indicator (orifice plate, inductive flow meter)
- Level-sensor.

**e-LNT..H SERIES**  
**LIST OF MODELS AT 50 Hz, 2 POLES**

SIZE  LNT..H	kW	VERSION					
		LNTEH			LNTSH		
		/2 1 ~ 230V	/3 3 ~ 230V	/4 3 ~ 400V	/2 1 ~ 230V	/3 3 ~ 230V	/4 3 ~ 400V
32-160/07	0,75	A	A	A	A	A	A
32-160/11	1,1	A	A	A	A	A	A
32-160/15	1,5	A	A	A	A	A	A
32-160/22	2,2	A	A	A	A	A	A
32-160/30	3	NF	NF	A	NF	NF	A
40-125/11	1,1	A	A	A	A	A	A
40-125/15	1,5	A	A	A	A	A	A
40-125/22	2,2	A	A	A	A	A	A
40-125/30	3	B	B	A	B	B	A
40-160/22	2,2	A	A	A	A	A	A
40-160/30	3	B	B	A	B	B	A
40-160/40	4	B	B	A	B	B	A
40-160/55	5,5	-	B	B	-	B	B
40-200/30	3	B	B	A	B	B	A
40-200/40	4	B	B	A	B	B	A
40-200/55	5,5	-	B	B	-	B	B
40-200/75	7,5	-	C	B	-	C	B
40-250/75	7,5	-	C	B	-	C	B
40-250/92	9,2	-	C	B	-	-	-
40-250/110	11	-	C	B	-	C	B
40-250/150	15	-	-	C	-	-	C
50-125/15	1,5	A	A	A	A	A	A
50-125/22	2,2	A	A	A	A	A	A
50-125/30	3	B	B	A	B	B	A
50-125/40	4	B	B	A	B	B	A
50-160/30	3	B	B	A	B	B	A
50-160/40	4	B	B	A	B	B	A
50-160/55	5,5	-	B	B	-	B	B
50-160/75	7,5	-	NF	B	-	NF	B
50-200/55	5,5	-	B	B	-	B	B
50-200/75	7,5	-	C	B	-	C	B
50-200/92	9,2	-	C	B	-	-	-
50-200/110	11	-	C	B	-	C	B
50-250/92	9,2	-	C	B	-	-	-
50-250/110	11	-	C	B	-	C	B
50-250/150	15	-	-	C	-	-	C
50-250/185	18,5	-	-	C	-	-	C
50-250/220	22	-	-	C	-	-	C

NF = Non Feasible, only Wall Mounting KIT version.

SIZE  LNT..H	kW	VERSION					
		LNTEH			LNTSH		
		/2 1 ~ 230V	/3 3 ~ 230V	/4 3 ~ 400V	/2 1 ~ 230V	/3 3 ~ 230V	/4 3 ~ 400V
65-125/30	3	B	B	A	B	B	A
65-125/40	4	B	B	A	B	B	A
65-125/55	5,5	-	B	B	-	B	B
65-125/75	7,5	-	NF	B	-	NF	B
65-160/55	5,5	-	B	B	-	B	B
65-160/75	7,5	-	NF	B	-	NF	B
65-160/92	9,2	-	NF	B	-	-	-
65-160/110	11	-	NF	B	-	NF	B
65-200/92	9,2	-	C	B	-	-	-
65-200/110	11	-	C	B	-	C	B
65-200/150	15	-	-	C	-	-	C
65-200/185	18,5	-	-	C	-	-	C
65-250/150	15	-	-	C	-	-	C
65-250/185	18,5	-	-	C	-	-	C
65-250/220	22	-	-	C	-	-	C
80-125/40	4	B	B	A	B	B	A
80-125/110	11	-	C	B	-	C	B
80-160/55	5,5	-	B	B	-	-	-
80-160/75	7,5	-	C	B	-	C	B
80-160/92	9,2	-	C	B	-	-	-
80-160/110	11	-	C	B	-	C	B
80-160/150	15	-	-	C	-	-	C
80-160/185	18,5	-	-	C	-	-	C
80-200/110	11	-	-	-	-	C	B
80-200/150	15	-	-	-	-	-	C
80-200/185	18,5	-	-	-	-	-	C
80-200/220	22	-	-	-	-	-	C
80-250/220	22	-	-	-	-	-	C
100-160/110	11	-	C	B	-	C	B
100-160/150	15	-	-	C	-	-	C
100-160/185	18,5	-	-	C	-	-	C
100-160/220	22	-	-	C	-	-	C
100-200/220	22	-	-	-	-	-	C

LNTH-HVL\_models-2p50-en\_c\_sc

**LEGEND**

**LNTEH** : Extended shaft with HYDROVAR (twin version).

**LNTSH** : Stub shaft with HYDROVAR (twin version).

**A, B, C** : are the mechanical size of HYDROVAR, refer to "HYDROVAR DIMENSIONS AND WEIGHTS" table in the previous pages.

**e-LNT..H SERIES**  
**LIST OF MODELS AT 50 Hz, 4 POLES**

SIZE	kW	VERSION					
		LNTEH			LNTSH		
		/2	/3	/4	/2	/3	/4
LNT..H		1 ~ 230V	3 ~ 230V	3 ~ 400V	1 ~ 230V	3 ~ 230V	3 ~ 400V
40-160/05	0,55	A	A	A	A	A	A
40-160/07	0,75	A	A	A	A	A	A
40-200/05	0,55	A	A	A	A	A	A
40-200/07	0,75	A	A	A	A	A	A
40-200/11	1,1	A	A	A	A	A	A
40-250/11	1,1	-	-	-	A	A	A
40-250/15	1,5	A	A	A	A	A	A
40-250/22	2,2	A	A	A	A	A	A
50-125/05	0,55	A	A	A	A	A	A
50-160/05	0,55	A	A	A	A	A	A
50-160/07	0,75	A	A	A	A	A	A
50-160/11	1,1	A	A	A	A	A	A
50-200/07	0,75	A	A	A	A	A	A
50-200/11	1,1	A	A	A	A	A	A
50-200/15	1,5	A	A	A	A	A	A
50-250/11	1,1	-	-	-	A	A	A
50-250/15	1,5	A	A	A	A	A	A
50-250/22	2,2	A	A	A	A	A	A
50-250/30	3	B	B	A	B	B	A
65-125/05	0,55	A	A	A	A	A	A
65-125/07	0,75	A	A	A	A	A	A
65-125/11	1,1	A	A	A	A	A	A
65-160/07	0,75	A	A	A	A	A	A
65-160/11	1,1	A	A	A	A	A	A
65-160/15	1,5	A	A	A	A	A	A
65-200/11	1,1	-	-	-	A	A	A
65-200/15	1,5	A	A	A	A	A	A
65-200/22	2,2	A	A	A	A	A	A
65-250/22	2,2	A	A	A	A	A	A
65-250/30	3	B	B	A	B	B	A
65-250/40	4	B	B	A	B	B	A
80-125/05	0,55	A	A	A	A	A	A
80-125/15	1,5	A	A	A	A	A	A
80-160/11	1,1	-	-	-	A	A	A
80-160/15	1,5	A	A	A	A	A	A
80-160/22	2,2	A	A	A	A	A	A
80-200/15	1,5	-	-	-	A	A	A
80-200/22	2,2	-	-	-	A	A	A
80-200/30	3	-	-	-	B	B	A
80-200/40	4	-	-	-	B	B	A
80-250/30	3	-	-	-	B	B	A
80-250/40	4	-	-	-	B	B	A
80-250/55	5,5	-	-	-	-	B	B
80-250/75	7,5	-	-	-	-	C	B
80-315/75	7,5	-	-	-	-	C	B
80-315/110	11	-	-	-	-	C	B
80-315/150	15	-	-	-	-	-	C

SIZE	kW	VERSION					
		LNTEH			LNTSH		
		/2	/3	/4	/2	/3	/4
LNT..H		1 ~ 230V	3 ~ 230V	3 ~ 400V	1 ~ 230V	3 ~ 230V	3 ~ 400V
100-160/15	1,5	A	A	A	A	A	A
100-160/22	2,2	A	A	A	A	A	A
100-160/30	3	B	B	A	B	B	A
100-200/30	3	-	-	-	B	B	A
100-200/40	4	-	-	-	B	B	A
100-200/55	5,5	-	-	-	-	B	B
100-250/55	5,5	-	-	-	-	B	B
100-250/75	7,5	-	-	-	-	C	B
100-250/110	11	-	-	-	-	C	B
100-315/110	11	-	-	-	-	C	B
100-315/150	15	-	-	-	-	-	C
100-315/185	18,5	-	-	-	-	-	C
100-315/220	22	-	-	-	-	-	C
125-160/22	2,2	-	-	-	A	A	A
125-160/30	3	-	-	-	B	B	A
125-160/40	4	-	-	-	B	B	A
125-200/55	5,5	-	-	-	-	B	B
125-200/75	7,5	-	-	-	-	C	B
125-250/75	7,5	-	-	-	-	C	B
125-250/110	11	-	-	-	-	C	B
125-315/150	15	-	-	-	-	-	C
125-315/185	18,5	-	-	-	-	-	C
125-315/220	22	-	-	-	-	-	C
150-200/55	5,5	-	-	-	-	B	B
150-200/75	7,5	-	-	-	-	C	B
150-200/110	11	-	-	-	-	C	B
150-250/110	11	-	-	-	-	C	B
150-250/150	15	-	-	-	-	-	C
150-315/185	18,5	-	-	-	-	-	C
150-315/220	22	-	-	-	-	-	C

LNT-HVL\_models-4p50-en\_c\_en

**e-LNT..H SERIES**  
**ELECTRICAL DATA TABLE AT 50 Hz, 2 POLES**

SIZE LNT..H	kW	INPUT CURRENT (A)					
		LNTEH			LNTSH		
		/2	/3	/4	/2	/3	/4
		1~230V	3~230V	3~400V	1~230V	3~230V	3~400V
32-160/07	0,75	8,0	4,8	2,8	8,0	4,8	2,8
32-160/11	1,1	11,7	7,1	4,1	11,7	7,1	4,1
32-160/15	1,5	15,9	9,6	5,7	15,9	9,6	5,7
32-160/22	2,2	23,4	14,1	8,3	23,4	14,1	8,3
32-160/30	3	*32,0	*19,4	11,2	*32,0	*19,4	11,2
40-125/11	1,1	11,7	7,1	4,1	11,7	7,1	4,1
40-125/15	1,5	15,9	9,6	5,7	15,9	9,6	5,7
40-125/22	2,2	23,4	14,1	8,3	23,4	14,1	8,3
40-125/30	3	31,9	19,2	11,2	31,9	19,2	11,2
40-160/22	2,2	23,4	14,1	8,3	23,4	14,1	8,3
40-160/30	3	31,9	19,2	11,2	31,9	19,2	11,2
40-160/40	4	42,5	25,3	14,6	42,5	25,3	14,6
40-160/55	5,5	-	34,5	20,1	-	34,5	20,1
40-200/30	3	31,9	19,2	11,2	31,9	19,2	11,2
40-200/40	4	42,5	25,3	14,6	42,5	25,3	14,6
40-200/55	5,5	-	34,5	20,1	-	34,5	20,1
40-200/75	7,5	-	46,1	27,3	-	46,1	27,3
40-250/75	7,5	-	46,1	27,3	-	46,1	27,3
40-250/92	9,2	-	56,9	32,4	-	-	-
40-250/110	11	-	68,0	38,7	-	68,0	38,7
40-250/150	15	-	-	52,2	-	-	52,2
50-125/15	1,5	15,9	9,6	5,7	15,9	9,6	5,7
50-125/22	2,2	23,4	14,1	8,1	23,4	14,1	8,3
50-125/30	3	31,9	19,2	11,2	31,9	19,2	11,2
50-125/40	4	42,5	25,3	14,6	42,5	25,3	14,6
50-160/30	3	31,9	19,2	11,2	31,9	19,2	11,2
50-160/40	4	42,5	25,3	14,6	42,5	25,3	14,6
50-160/55	5,5	-	34,5	20,1	-	34,5	20,1
50-160/75	7,5	-	*47,5	27,3	-	*47,5	27,3
50-200/55	5,5	-	34,5	20,1	-	34,5	20,1
50-200/75	7,5	-	46,1	27,3	-	46,1	46,1
50-200/92	9,2	-	56,9	32,4	-	-	-
50-200/110	11	-	68,0	38,7	-	68,0	38,7
50-250/92	9,2	-	56,9	32,4	-	-	-
50-250/110	11	-	68,0	38,7	-	68,0	38,7
50-250/150	15	-	-	52,2	-	-	52,2
50-250/185	18,5	-	-	64,3	-	-	64,3
50-250/220	22	-	-	76,1	-	-	76,1

Nominal current LNT supplied by HVL at 50Hz

\* Nominal current of wall mounting kit is included

SIZE LNT..H	kW	INPUT CURRENT (A)					
		LNTEH			LNTSH		
		/2	/3	/4	/2	/3	/4
		1~230V	3~230V	3~400V	1~230V	3~230V	3~400V
65-125/30	3	31,9	19,2	11,2	31,9	19,2	11,2
65-125/40	4	42,5	25,3	14,6	42,5	25,3	14,6
65-125/55	5,5	-	34,5	20,1	-	34,5	20,1
65-125/75	7,5	-	*47,5	27,3	-	*47,5	27,3
65-160/55	5,5	-	34,5	20,1	-	34,5	20,1
65-160/75	7,5	-	*47,5	27,3	-	*47,5	27,3
65-160/92	9,2	-	*58,3	32,4	-	-	-
65-160/110	11	-	*69,4	40,3	-	*69,4	40,3
65-200/92	9,2	-	56,9	32,4	-	-	-
65-200/110	11	-	68,0	38,7	-	68,0	38,7
65-200/150	15	-	-	52,2	-	-	52,2
65-200/185	18,5	-	-	64,3	-	-	64,3
65-250/150	15	-	-	52,2	-	-	52,2
65-250/185	18,5	-	-	64,3	-	-	64,3
65-250/220	22	-	-	76,1	-	-	76,1
80-125/40	4	42,5	25,3	14,6	42,5	25,3	14,6
80-125/110	11	-	68,0	38,7	-	68,0	38,7
80-160/55	5,5	-	33,8	20,0	-	-	-
80-160/75	7,5	-	46,1	27,3	-	46,1	27,3
80-160/92	9,2	-	56,9	32,4	-	-	-
80-160/110	11	-	68,0	38,7	-	68,0	38,7
80-160/150	15	-	-	52,2	-	-	52,2
80-160/185	18,5	-	-	64,3	-	-	64,3
80-200/110	11	-	-	-	-	68,0	38,7
80-200/150	15	-	-	-	-	-	52,2
80-200/185	18,5	-	-	-	-	-	64,3
80-200/220	22	-	-	-	-	-	76,1
80-250/220	22	-	-	-	-	-	76,1
100-160/110	11	-	68,0	38,7	-	68,0	38,7
100-160/150	15	-	-	52,2	-	-	52,2
100-160/185	18,5	-	-	64,3	-	-	64,3
100-160/220	22	-	-	76,1	-	-	76,1
100-200/220	22	-	-	-	-	-	76,1

LNT-HVL-2p50-en\_b\_te

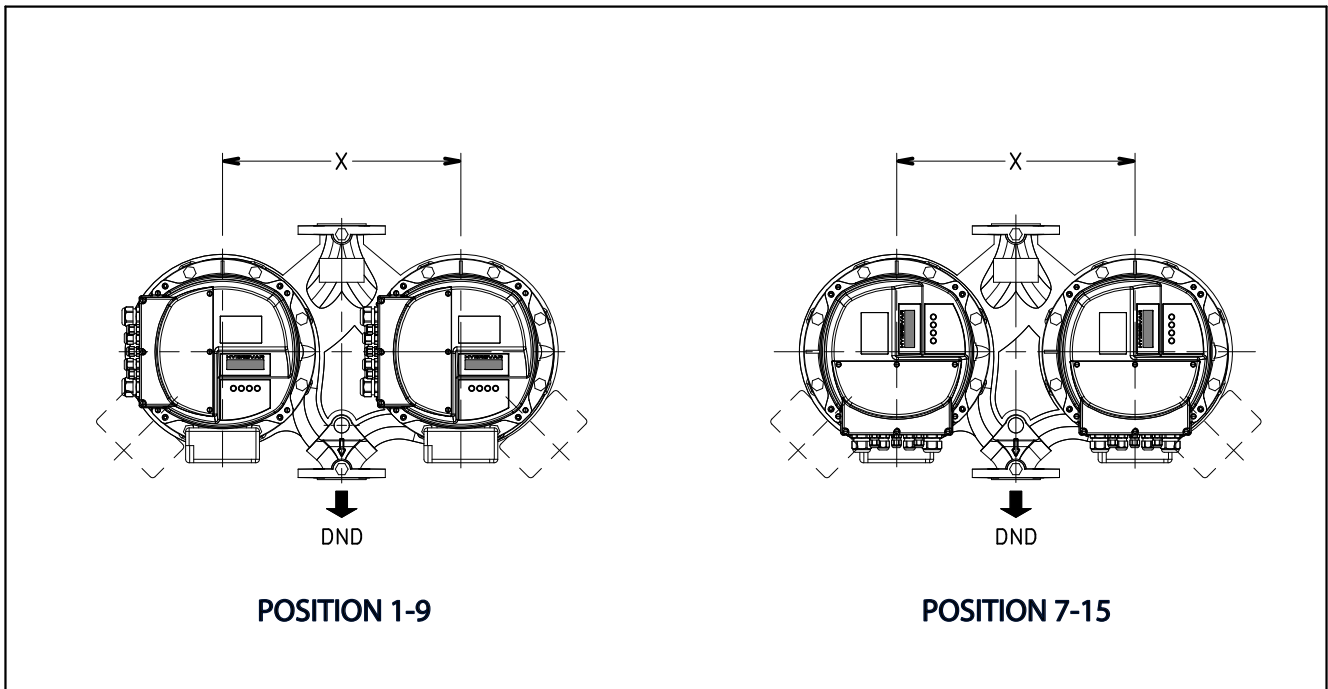
**e-LNT..H SERIES**  
**ELECTRICAL DATA TABLE AT 50 Hz, 4 POLES**

SIZE LNT..H	kW	INPUT CURRENT (A)					
		LNTEH			LNTSH		
		/2 1 ~ 230V	/3 3 ~ 230V	/4 3 ~ 400V	/2 1 ~ 230V	/3 3 ~ 230V	/4 3 ~ 400V
40-160/05	0,55	6,27	3,98	2,58	6,27	3,98	2,58
40-160/07	0,75	8,55	5,42	3,51	8,55	5,42	3,51
40-200/05	0,55	6,27	3,98	2,58	6,27	3,98	2,58
40-200/07	0,75	8,55	5,42	3,51	8,55	5,42	3,51
40-200/11	1,1	12,5	7,96	5,15	12,5	7,96	5,15
40-250/11	1,1	-	-	-	12,5	7,96	5,15
40-250/15	1,5	17,1	9,92	7,03	17,1	9,92	7,03
40-250/22	2,2	25,1	14,1	10,3	25,1	14,1	10,3
50-125/05	0,55	6,27	3,98	2,58	6,27	3,98	2,58
50-160/05	0,55	6,27	3,98	2,58	6,27	3,98	2,58
50-160/07	0,75	8,55	5,42	3,51	8,55	5,42	3,51
50-160/11	1,1	12,5	7,96	5,15	12,5	7,96	5,15
50-200/07	0,75	8,55	5,42	3,51	8,55	5,42	3,51
50-200/11	1,1	12,5	7,96	5,15	12,5	7,96	5,15
50-200/15	1,5	17,1	9,92	7,03	17,1	9,92	7,03
50-250/11	1,1	-	-	-	12,5	7,96	5,15
50-250/15	1,5	17,1	9,92	7,03	17,1	9,92	7,03
50-250/22	2,2	25,1	14,1	10,3	25,1	14,1	10,3
50-250/30	3	34,2	19,2	11,2	34,2	19,2	11,2
65-125/05	0,55	6,27	3,98	2,58	6,27	3,98	2,58
65-125/07	0,75	8,55	5,42	3,51	8,55	5,42	3,51
65-125/11	1,1	12,5	7,96	5,15	12,5	7,96	5,15
65-160/07	0,75	8,55	5,42	3,51	8,55	5,42	3,51
65-160/11	1,1	12,5	7,96	5,15	12,5	7,96	5,15
65-160/15	1,5	17,1	9,92	7,03	17,1	9,92	7,03
65-200/11	1,1	-	-	-	12,5	7,96	5,15
65-200/15	1,5	17,1	9,92	7,03	17,1	9,92	7,03
65-200/22	2,2	25,1	14,1	10,3	25,1	14,1	10,3
65-250/22	2,2	25,1	14,1	10,3	25,1	14,1	10,3
65-250/30	3	34,2	19,2	11,2	34,2	19,2	11,2
65-250/40	4	45,6	25,6	14,8	45,6	25,6	14,8
80-125/05	0,55	6,27	3,98	2,58	6,27	3,98	2,58
80-125/15	1,5	17,1	9,92	7,03	17,1	9,92	7,03
80-160/11	1,1	-	-	-	12,5	7,96	5,15
80-160/15	1,5	17,1	9,92	7,03	17,1	9,92	7,03
80-160/22	2,2	25,1	14,1	10,3	25,1	14,1	10,3
80-200/15	1,5	-	-	-	17,1	9,92	7,03
80-200/22	2,2	-	-	-	25,1	14,1	10,3
80-200/30	3	-	-	-	34,2	19,2	11,2
80-200/40	4	-	-	-	45,6	25,6	14,8
80-250/30	3	-	-	-	34,2	19,2	11,2
80-250/40	4	-	-	-	45,6	25,6	14,8
80-250/55	5,5	-	-	-	-	34,5	20,2
80-250/75	7,5	-	-	-	-	47,1	27,4
80-315/75	7,5	-	-	-	-	47,1	27,4
80-315/110	11	-	-	-	-	69	38,7
80-315/150	15	-	-	-	-	-	52,4

LNTH-HVL-4p50-en\_b\_te

SIZE LNT..H	kW	INPUT CURRENT (A)					
		LNTEH			LNTSH		
		/2 1 ~ 230V	/3 3 ~ 230V	/4 3 ~ 400V	/2 1 ~ 230V	/3 3 ~ 230V	/4 3 ~ 400V
100-160/15	1,5	17,1	9,92	7,03	17,1	9,92	7,03
100-160/22	2,2	25,1	14,1	10,3	25,1	14,1	10,3
100-160/30	3	34,2	19,2	11,2	34,2	19,2	11,2
100-200/30	3	-	-	-	34,2	19,2	11,2
100-200/40	4	-	-	-	45,6	25,6	14,8
100-200/55	5,5	-	-	-	-	34,5	20,2
100-250/55	5,5	-	-	-	-	34,5	20,2
100-250/75	7,5	-	-	-	-	47,1	27,4
100-250/110	11	-	-	-	-	69	38,7
100-315/110	11	-	-	-	-	69	38,7
100-315/150	15	-	-	-	-	-	52,4
100-315/185	18,5	-	-	-	-	-	64,6
100-315/220	22	-	-	-	-	-	77,6
125-160/22	2,2	-	-	-	25,1	14,1	10,3
125-160/30	3	-	-	-	34,2	19,2	11,2
125-160/40	4	-	-	-	45,6	25,6	14,8
125-200/55	5,5	-	-	-	-	34,5	20,2
125-200/75	7,5	-	-	-	-	47,1	27,4
125-250/75	7,5	-	-	-	-	47,1	27,4
125-250/110	11	-	-	-	-	69	38,7
125-315/150	15	-	-	-	-	-	52,4
125-315/185	18,5	-	-	-	-	-	64,6
125-315/220	22	-	-	-	-	-	77,6
150-200/55	5,5	-	-	-	-	34,5	20,2
150-200/75	7,5	-	-	-	-	47,1	27,4
150-200/110	11	-	-	-	-	69	38,7
150-250/110	11	-	-	-	-	69	38,7
150-250/150	15	-	-	-	-	-	52,4
150-315/185	18,5	-	-	-	-	-	64,6
150-315/220	22	-	-	-	-	-	77,6

**e-LNT..H SERIES  
HYDROVAR HVL DISPLAY POSITION**



HVL SIZE A	
X (mm)	HVL STD position
275	7-15
310	1-9
360	1-9
395	1-9
410	1-9

HVL SIZE B	
X (mm)	HVL STD position
275	NF**
310	7-15
360	7-15
395	1-9
410	1-9
420	1-9
435	1-9
470	1-9

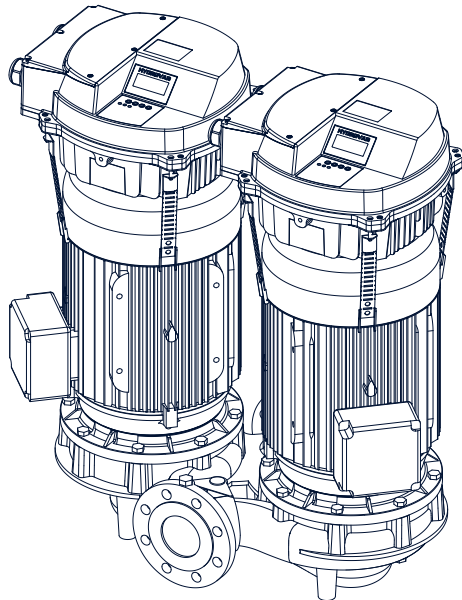
HVL SIZE C	
X (mm)	HVL STD position
310	NF**
360	NF**
395	7-15
410	7-15
420	7-15
435	7-15
470	7-15
	1-9
480	7-15 (only 22 kW)
	1-9
500	7-15 (only 22 kW)

NF\*\* = Not FEASIBLE, only wall mounting kit version.

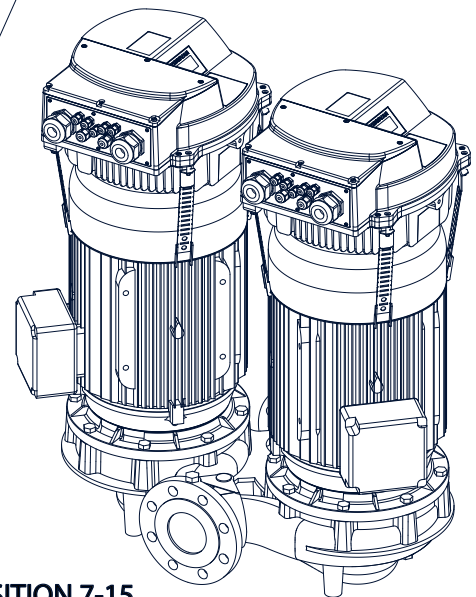
Display positioning can be different in case of special motor usage.

HVL\_LNT-pos-en\_b\_td

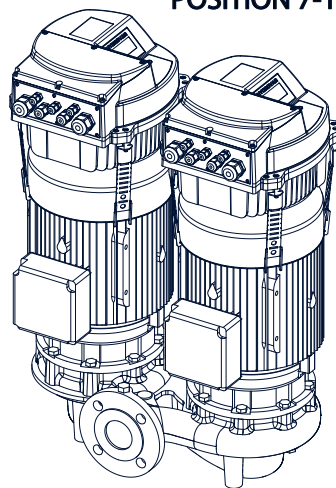
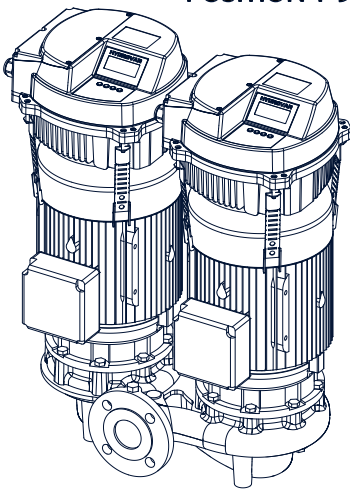
**e-LNT..H SERIES  
HYDROVAR HVL DISPLAY POSITION**



**POSITION 1-9**

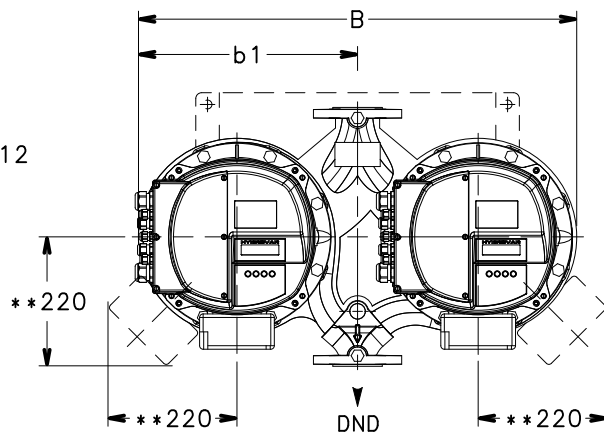
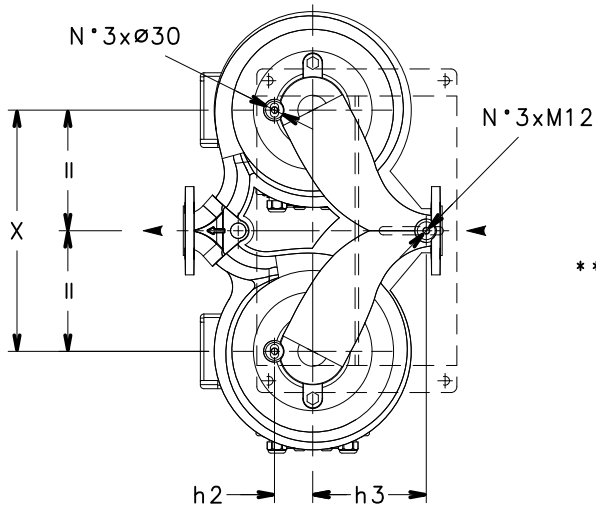
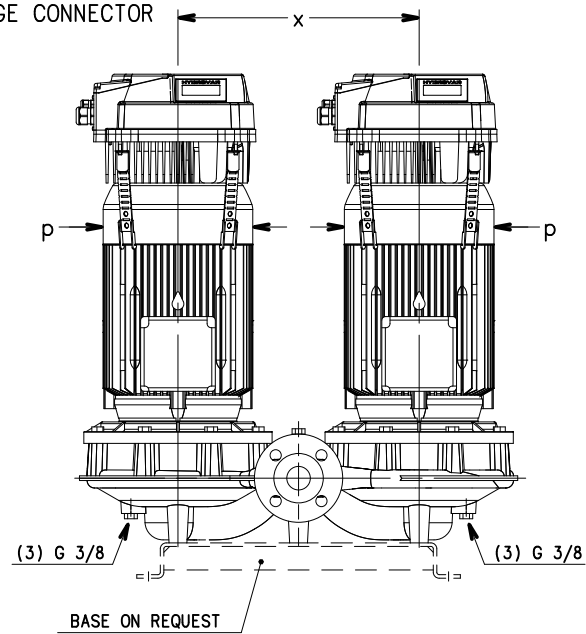
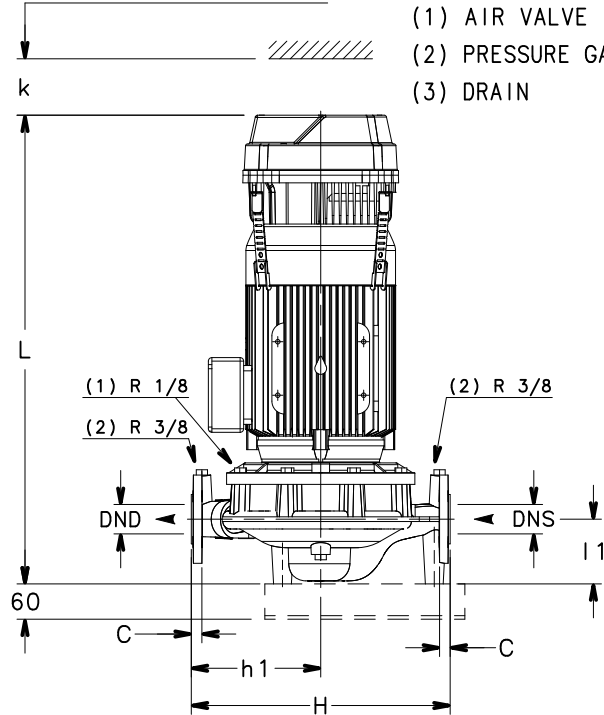


**POSITION 7-15**

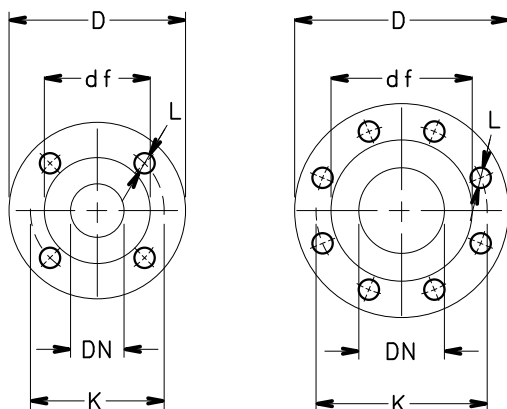


**LNTEH 32, 40, 50, 65, 80, 100 SERIES**  
**DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES**

CLEARANCE FOR DISASSEMBLY



\*\* ONLY FOR MODELS WITH  
15-18.5-22 kW MOTORS



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.



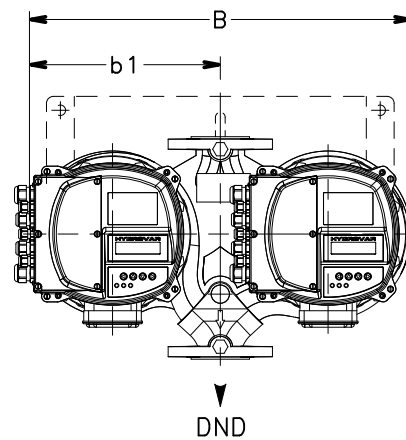
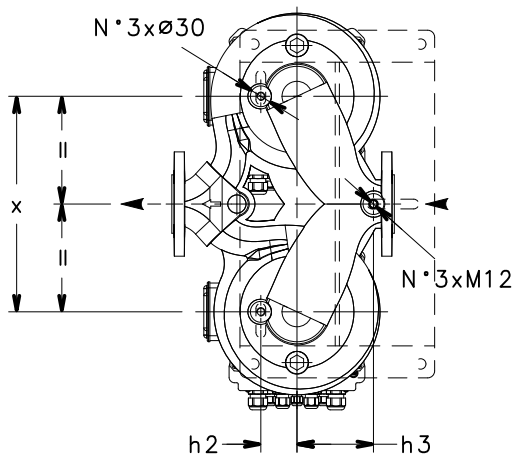
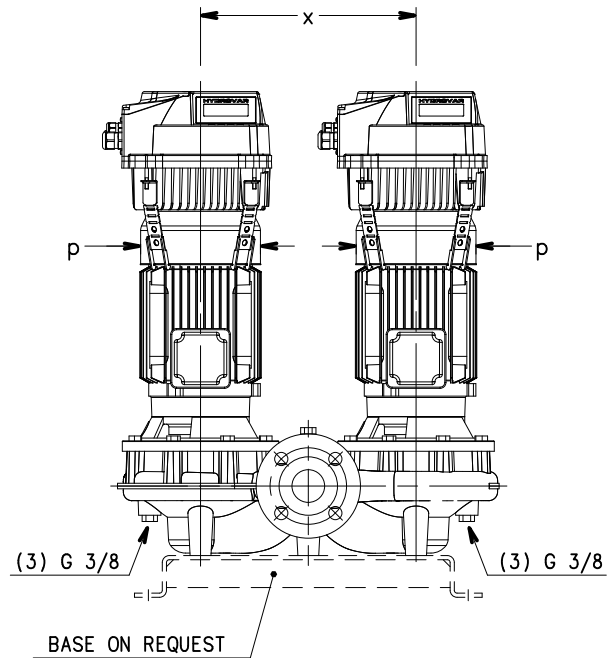
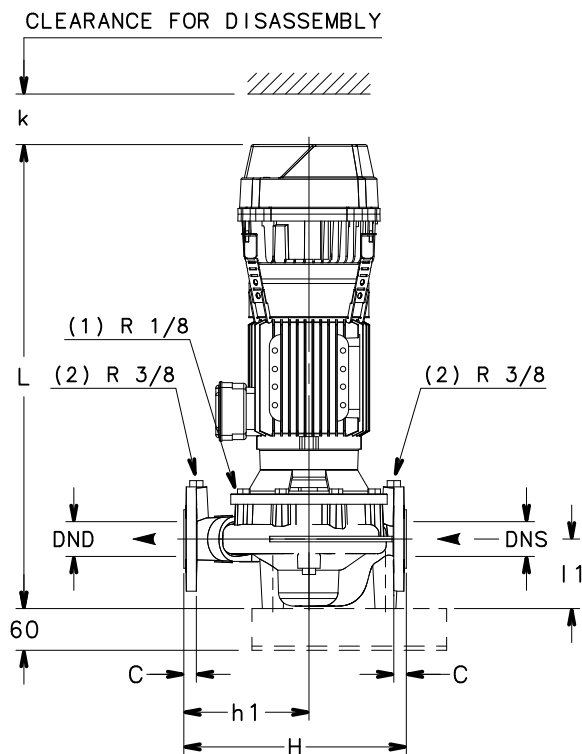
## LNTEH 32, 40, 50, 65, 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE LNTEH..2	DIMENSIONS (mm)										L			k ≥	WEIGHT (kg)			
	DND	DNS	b1	h1	h2	h3	l1	p	x	B	H	/2	/3		/4	/2	/3	/4
												1-230V	3-230V		3-400V	1-230V	3-230V	3-400V
32-160/07/S	32	32	257	180	40	110	90	155	275	514	320	623	623	623	300	64,2	64,2	64,2
32-160/11/S	32	32	257	180	40	110	90	155	275	514	320	623	623	623	300	66,2	66,2	66,2
32-160/15/S	32	32	257	180	40	110	90	155	275	514	320	623	623	623	300	74,2	74,2	74,2
32-160/22/P	32	32	257	180	40	110	90	174	275	514	320	658	658	658	300	88,2	88,2	88,2
32-160/30/P	32	32	257	180	40	110	90	174	275	514	320	-	-	658	300	-	-	90,2
40-125/11/S	40	40	274,5	180	52	110	100	155	310	549	320	633	633	633	300	68,2	68,2	68,2
40-125/15/S	40	40	274,5	180	52	110	100	155	310	549	320	633	633	633	300	76,2	76,2	76,2
40-125/22/P	40	40	274,5	180	52	110	100	174	310	549	320	668	668	668	300	90,2	90,2	90,2
40-125/30/P	40	40	274,5	180	52	110	100	174	310	549	320	683	683	668	300	102,0	102,0	92,2
40-160/22/P	40	40	274,5	180	52	110	100	174	310	549	320	668	668	668	300	90,2	90,2	90,2
40-160/30/P	40	40	274,5	180	52	110	100	174	310	549	320	683	683	668	300	102,0	102,0	92,2
40-160/40/P	40	40	274,5	180	52	110	100	197	310	549	320	704	704	689	300	112,0	112,0	102,2
40-160/55/P	40	40	274,5	180	52	110	100	214	310	549	320	-	738	738	300	-	130,0	130,0
40-200/30/P	40	40	372,5	220	65	193	110	174	410	745	440	691	691	676	300	134,0	134,0	124,2
40-200/40/P	40	40	372,5	220	65	193	110	197	410	745	440	712	712	697	300	144,0	144,0	134,2
40-200/55/P	40	40	372,5	220	65	193	110	214	410	745	440	-	746	746	300	-	162,0	162,0
40-200/75/P	40	40	372,5	220	65	193	110	256	410	745	440	-	775	760	300	-	210,2	200,0
40-250/75/P	40	40	372,5	220	65	193	110	256	410	745	440	-	775	760	300	-	210,2	200,0
40-250/92/P	40	40	372,5	220	65	193	110	256	410	745	440	-	813	798	300	-	222,2	212,0
40-250/110/P	40	40	372,5	220	65	193	110	256	410	745	440	-	813	798	300	-	228,2	218,0
40-250/150/P	40	40	372,5	220	65	193	110	313	410	745	440	-	-	902	300	-	-	308,2
50-125/15/S	50	50	275	190	57	120	116	155	310	555	340	649	649	649	300	85,2	85,2	85,2
50-125/22/P	50	50	275	190	57	120	116	174	310	555	340	684	684	684	300	99,2	99,2	99,2
50-125/30/P	50	50	275	190	57	120	116	174	310	555	340	699	699	684	300	111,0	111,0	101,2
50-125/40/P	50	50	275	190	57	120	116	197	310	555	340	720	720	705	300	121,0	121,0	111,2
50-160/30/P	50	50	275	190	57	120	116	174	310	555	340	699	699	684	300	111,0	111,0	101,2
50-160/40/P	50	50	275	190	57	120	116	197	310	555	340	720	720	705	300	121,0	121,0	111,2
50-160/55/P	50	50	275	190	57	120	116	214	310	555	340	-	754	754	300	-	139,0	139,0
50-160/75/P	50	50	275	190	57	120	116	256	310	555	340	-	-	768	300	-	-	177,0
50-200/55/P	50	50	372,5	230	60	185	115	214	410	745	440	-	753	753	300	-	174,0	174,0
50-200/75/P	50	50	372,5	230	60	185	115	256	410	745	440	-	782	767	300	-	222,2	212,0
50-200/92/P	50	50	372,5	230	60	185	115	256	410	745	440	-	820	805	300	-	234,2	224,0
50-200/110/P	50	50	372,5	230	60	185	115	256	410	745	440	-	820	805	300	-	240,2	230,0
50-250/92/P	50	50	372,5	230	60	185	115	256	410	745	440	-	820	805	300	-	234,2	224,0
50-250/110/P	50	50	372,5	230	60	185	115	256	410	745	440	-	820	805	300	-	240,2	230,0
50-250/150/P	50	50	372,5	230	60	185	115	313	410	745	440	-	-	909	300	-	-	320,2
50-250/185/P	50	50	372,5	230	60	185	115	313	410	745	440	-	-	909	300	-	-	342,2
50-250/220/P	50	50	372,5	230	60	185	115	313	410	745	440	-	-	909	300	-	-	360,2
65-125/30/P	65	65	323	190	75	140	122	174	360	646	360	711	711	696	300	123,0	123,0	113,2
65-125/40/P	65	65	323	190	75	140	122	197	360	646	360	732	732	717	300	133,0	133,0	123,2
65-125/55/P	65	65	323	190	75	140	122	214	360	646	360	-	766	766	300	-	151,0	151,0
65-125/75/P	65	65	323	190	75	140	122	256	360	646	360	-	-	780	300	-	-	189,0
65-160/55/P	65	65	323	190	75	140	122	214	360	646	360	-	766	766	300	-	151,0	151,0
65-160/75/P	65	65	323	190	75	140	122	256	360	646	360	-	-	780	300	-	-	189,0
65-160/92/P	65	65	323	190	75	140	122	256	360	646	360	-	-	818	300	-	-	201,0
65-160/110/P	65	65	323	190	75	140	122	256	360	646	360	-	-	818	300	-	-	207,0
65-200/92/P	65	65	377,5	250	76	196	118	256	420	762	475	-	823	808	300	-	242,2	232,0
65-200/110/P	65	65	377,5	250	76	196	118	256	420	762	475	-	823	808	300	-	248,2	238,0
65-200/150/P	65	65	377,5	250	76	196	118	313	420	762	475	-	-	912	300	-	-	328,2
65-200/185/P	65	65	377,5	250	76	196	118	313	420	762	475	-	-	912	300	-	-	350,2
65-250/150/P	65	65	377,5	250	76	196	118	313	420	762	475	-	-	912	300	-	-	328,2
65-250/185/P	65	65	377,5	250	76	196	118	313	420	762	475	-	-	912	300	-	-	350,2
65-250/220/P	65	65	377,5	250	76	196	118	313	420	762	475	-	-	912	300	-	-	368,2
80-125/40/P	80	80	374	235	80	110	133	197	410	748	420	737	737	722	300	151,0	151,0	151,0
80-125/110/P	80	80	374	235	80	110	133	256	410	748	420	0	838	823	300	0,0	256,2	246,0
80-160/55/P	80	80	374	235	80	110	133	214	410	748	420	-	771	771	300	-	190,0	190,0
80-160/75/P	80	80	374	235	80	110	133	256	410	748	420	-	800	785	300	-	238,2	228,0
80-160/92/P	80	80	374	235	80	110	133	256	410	748	420	-	838	823	300	-	250,2	240,0
80-160/110/P	80	80	374	235	80	110	133	256	410	748	420	-	838	823	300	-	256,2	246,0
80-160/150/P	80	80	374	235	80	110	133	313	410	748	420	-	-	927	300	-	-	336,2
80-160/185/P	80	80	374	235	80	110	133	313	410	748	420	-	-	927	300	-	-	358,2
100-160/110/P	100	100	374	280	87	125	158	256	410	748	500	-	868	853	300	-	268,2	258,0
100-160/150/P	100	100	374	280	87	125	158	313	410	748	500	-	-	957	300	-	-	348,2
100-160/185/P	100	100	374	280	87	125	158	313	410	748	500	-	-	957	300	-	-	370,2
100-160/220/P	100	100	374	280	87	125	158	313	410	748	500	-	-	957	300	-	-	388,2

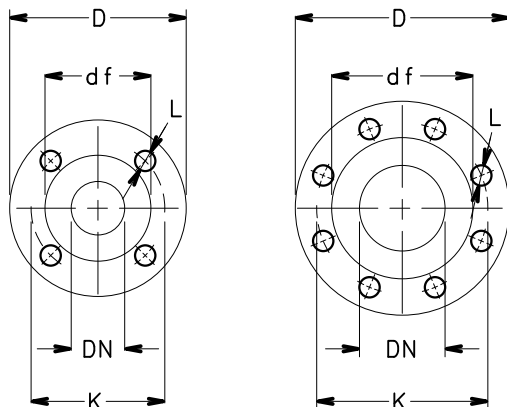
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

LNEEH-HVL-32-100\_2p50-en\_a\_1d

**LNTEH 40, 50, 65, 80, 100 SERIES**  
**DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES**



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



FLANGE

EN1092-2, PN 16 *)					
DN	D	K	C	df	L
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.

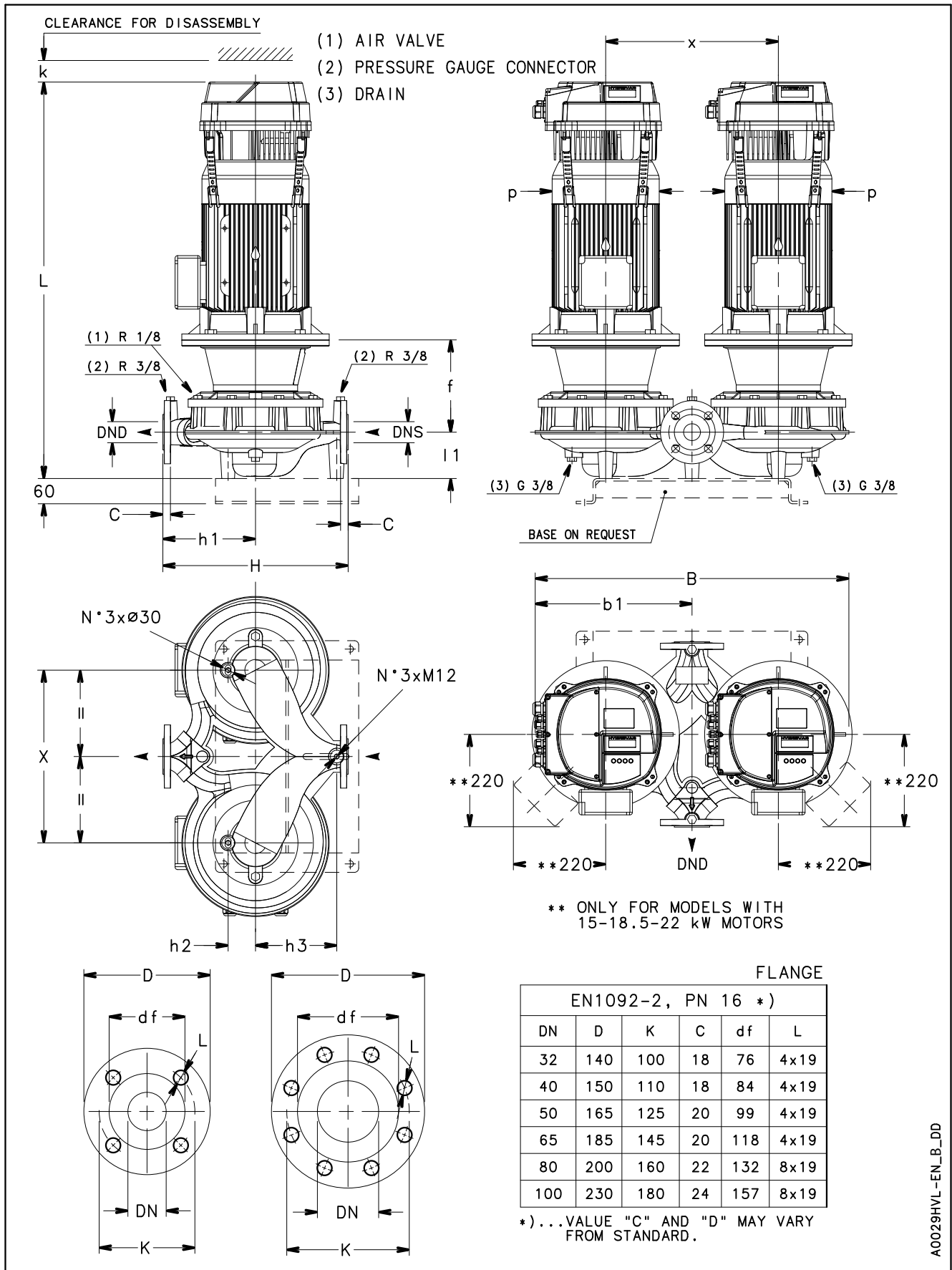
## LNTEH 40, 50, 65, 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE LNTEH..4	DIMENSIONS (mm)									B	H	L			k	WEIGHT (kg)		
	DND	DNS	b1	h1	h2	h3	l1	p	x			/2	/3	/4		/2	/3	/4
												1~230V	3~230V	3~400V		1~230V	3~230V	3~400V
40-160/05/S	40	40	274,5	180	52	110	100	155	310	549	320	633	633	633	300	68,2	68,2	68,2
40-160/07/X	40	40	274,5	180	52	110	100	159	310	549	320	601	601	601	300	68,2	68,2	68,2
40-200/05/S	40	40	372,5	220	65	193	110	155	410	745	440	641	641	641	300	100,2	100,2	100,2
40-200/07/X	40	40	372,5	220	65	193	110	159	410	745	440	609	609	609	300	106,2	106,2	106,2
40-200/11/P	40	40	372,5	220	65	193	110	174	410	745	440	676	676	676	300	118,2	118,2	118,2
40-250/15/P	40	40	372,5	220	65	193	110	174	410	745	440	676	676	676	300	126,2	126,2	126,2
40-250/22/P	40	40	372,5	220	65	193	110	214	410	745	440	700	700	700	300	146,2	146,2	146,2
50-125/05/S	50	50	275	190	57	120	116	155	310	555	340	649	649	649	300	77,2	77,2	77,2
50-160/05/S	50	50	275	190	57	120	116	155	310	555	340	649	649	649	300	77,2	77,2	77,2
50-160/07/X	50	50	275	190	57	120	116	159	310	555	340	617	617	617	300	83,2	83,2	83,2
50-160/11/P	50	50	275	190	57	120	116	174	310	555	340	684	684	684	300	99,2	99,2	99,2
50-200/07/X	50	50	372,5	230	60	185	115	159	410	745	440	616	616	616	300	102,2	102,2	102,2
50-200/11/P	50	50	372,5	230	60	185	115	174	410	745	440	683	683	683	300	130,2	130,2	130,2
50-200/15/P	50	50	372,5	230	60	185	115	174	410	745	440	683	683	683	300	138,2	138,2	138,2
50-250/15/P	50	50	372,5	230	60	185	115	174	410	745	440	683	683	683	300	138,2	138,2	138,2
50-250/22/P	50	50	372,5	230	60	185	115	214	410	745	440	707	707	707	300	158,2	158,2	158,2
50-250/30/P	50	50	372,5	230	60	185	115	214	410	745	440	753	753	738	300	176,0	176,0	166,2
65-125/05/S	65	65	323	190	75	140	122	155	360	646	360	661	661	661	300	89,2	89,2	89,2
65-125/07/X	65	65	323	190	75	140	122	159	360	646	360	629	629	629	300	95,2	95,2	95,2
65-125/11/P	65	65	323	190	75	140	122	174	360	646	360	696	696	696	300	107,2	107,2	107,2
65-160/07/X	65	65	323	190	75	140	122	159	360	646	360	629	629	629	300	95,2	95,2	95,2
65-160/11/P	65	65	323	190	75	140	122	174	360	646	360	696	696	696	300	107,2	107,2	107,2
65-160/15/P	65	65	323	190	75	140	122	174	360	646	360	696	696	696	300	115,2	115,2	115,2
65-200/15/P	65	65	377,5	250	76	196	118	174	420	762	475	686	686	686	300	146,2	146,2	146,2
65-200/22/P	65	65	377,5	250	76	196	118	214	420	762	475	710	710	710	300	166,2	166,2	166,2
65-250/22/P	65	65	377,5	250	76	196	118	214	420	762	475	710	710	710	300	166,2	166,2	166,2
65-250/30/P	65	65	377,5	250	76	196	118	214	420	762	475	756	756	741	300	184,0	184,0	174,2
65-250/40/P	65	65	377,5	250	76	196	118	214	420	762	475	785	785	770	300	222,0	222,0	212,2
80-125/05/S	80	80	374	235	80	110	133	155	410	748	420	666	666	666	300	128,2	128,2	128,2
80-125/15/P	80	80	374	235	80	110	133	174	410	748	420	701	701	701	300	154,2	154,2	154,2
80-160/15/P	80	80	374	235	80	110	133	174	410	748	420	701	701	701	300	154,2	154,2	154,2
80-160/22/P	80	80	374	235	80	110	133	214	410	748	420	725	725	725	300	174,2	174,2	174,2
100-160/15/P	100	100	374	280	87	125	158	174	410	748	500	731	731	731	300	166,2	166,2	166,2
100-160/22/P	100	100	374	280	87	125	158	214	410	748	500	755	755	755	300	186,2	186,2	186,2
100-160/30/P	100	100	374	280	87	125	158	214	410	748	500	801	801	786	300	204,0	204,0	194,2

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

LNTEH-HVL-40-100\_4p50-en\_c\_tld

**LNTSH 32, 40, 50, 65 SERIES**  
**DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES**



A0029HVL-EN\_B\_DD

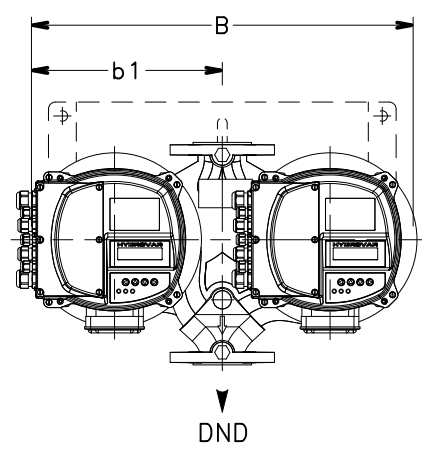
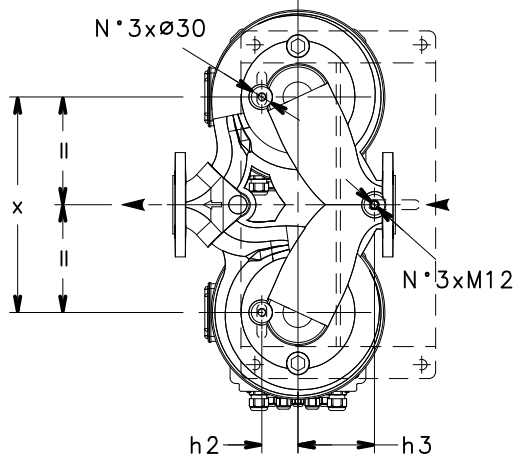
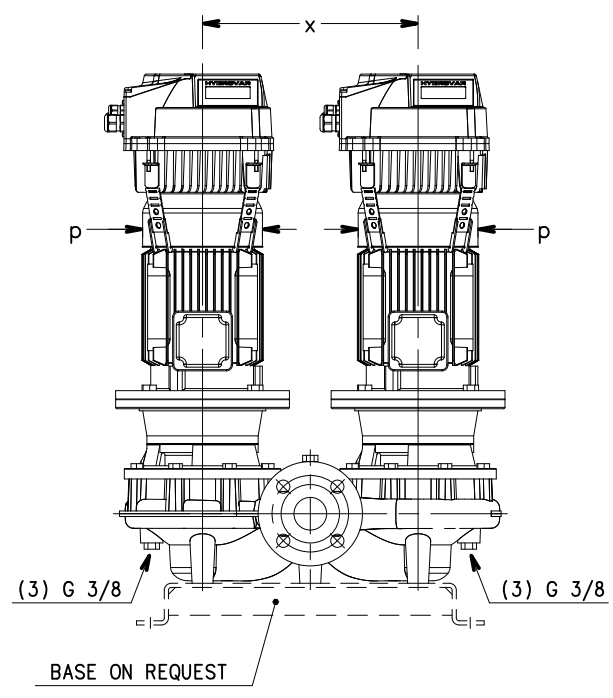
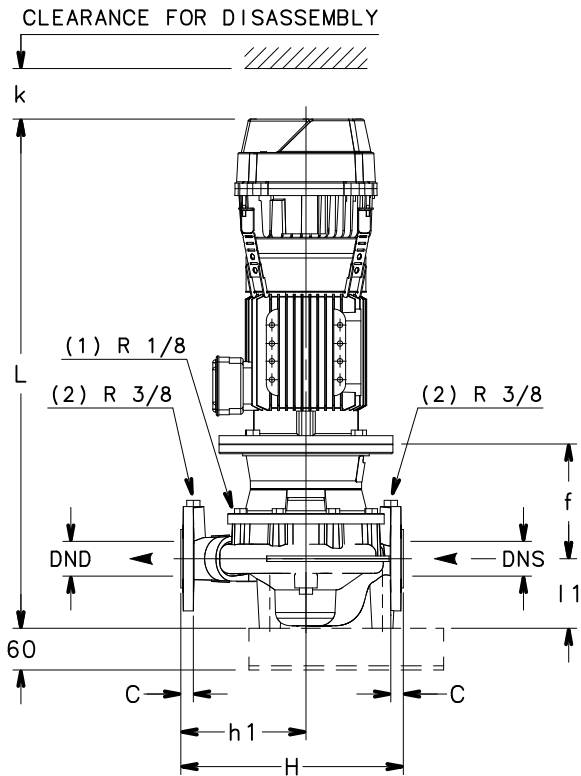
## LNTSH 32, 40, 50, 65 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE LNTSH..2	DIMENSIONS (mm)											B	H	L			k ≅	WEIGHT (kg)		
	DND	DNS	b1	f	h1	h2	h3	l1	p	x	/2			/3	/4	/2		/3	/4	
											1~230V			3~230V	3~400V	1~230V		3~230V	3~400V	
32-160/07/S	32	32	257	155	180	40	110	90	155	275	514	320	678	678	678	300	70,2	70,2	70,2	
32-160/11/S	32	32	257	155	180	40	110	90	155	275	514	320	678	678	678	300	72,2	72,2	72,2	
32-160/15/S	32	32	257	155	180	40	110	90	155	275	514	320	678	678	678	300	80,2	80,2	80,2	
32-160/22/P	32	32	257	155	180	40	110	90	174	275	514	320	713	713	713	300	94,2	94,2	94,2	
32-160/30/P	32	32	257	165	180	40	110	90	174	275	514	320	-	-	723	300	-	-	104,2	
40-125/11/S	40	40	275	155	180	52	110	100	155	310	549	320	688	688	688	300	74,2	74,2	74,2	
40-125/15/S	40	40	275	155	180	52	110	100	155	310	549	320	688	688	688	300	82,2	82,2	82,2	
40-125/22/P	40	40	275	155	180	52	110	100	174	310	549	320	723	723	723	300	96,2	96,2	96,2	
40-125/30/P	40	40	275	165	180	52	110	100	174	310	549	320	748	748	733	300	116,0	116,0	106,2	
40-160/22/P	40	40	275	155	180	52	110	100	174	310	549	320	723	723	723	300	96,2	96,2	96,2	
40-160/30/P	40	40	275	165	180	52	110	100	174	310	549	320	748	748	733	300	116,0	116,0	106,2	
40-160/40/P	40	40	275	165	180	52	110	100	197	310	549	320	769	769	754	300	122,0	122,0	112,2	
40-160/55/P	40	40	275	192	180	52	110	100	214	310	549	320	-	852	852	300	-	148,0	148,0	
40-200/30/P	40	40	373	163	220	65	193	110	174	410	745	440	756	756	741	300	148,0	148,0	138,2	
40-200/40/P	40	40	373	163	220	65	193	110	197	410	745	440	777	777	762	300	154,0	154,0	144,2	
40-200/55/P	40	40	373	190	220	65	193	110	214	410	745	440	-	860	860	300	-	180,0	180,0	
40-200/75/P	40	40	373	190	220	65	193	110	256	410	745	440	-	867	852	300	-	228,2	218,0	
40-250/75/P	40	40	373	190	220	65	193	110	256	410	745	440	-	867	852	300	-	228,2	218,0	
40-250/110/P	40	40	373	220	220	65	193	110	256	410	745	440	-	958	943	300	-	262,2	252,0	
40-250/150/P	40	40	373	220	220	65	193	110	313	410	745	440	-	-	1024	300	-	-	328,2	
50-125/15/S	50	50	275	155	190	57	120	116	155	310	555	340	704	704	704	300	91,2	91,2	91,2	
50-125/22/P	50	50	275	155	190	57	120	116	174	310	555	340	739	739	739	300	105,2	105,2	105,2	
50-125/30/P	50	50	275	165	190	57	120	116	174	310	555	340	764	764	749	300	125,0	125,0	115,2	
50-125/40/P	50	50	275	165	190	57	120	116	197	310	555	340	785	785	770	300	131,0	131,0	121,2	
50-160/30/P	50	50	275	165	190	57	120	116	174	310	555	340	764	764	749	300	125,0	125,0	115,2	
50-160/40/P	50	50	275	165	190	57	120	116	197	310	555	340	785	785	770	300	131,0	131,0	121,2	
50-160/55/P	50	50	275	192	190	57	120	116	214	310	555	340	-	868	868	300	-	156,0	156,0	
50-160/75/P	50	50	275	192	190	57	120	116	256	310	555	340	-	-	860	300	-	-	195,0	
50-200/55/P	50	50	373	192	230	60	185	115	214	410	745	440	-	867	867	300	-	192,0	192,0	
50-200/75/P	50	50	373	192	230	60	185	115	256	410	745	440	-	874	859	300	-	240,2	230,0	
50-200/110/P	50	50	373	222	230	60	185	115	256	410	745	440	-	965	950	300	-	274,2	264,0	
50-250/110/P	50	50	373	222	230	60	185	115	256	410	745	440	-	965	950	300	-	274,2	264,0	
50-250/150/P	50	50	373	222	230	60	185	115	313	410	745	440	-	-	1031	300	-	-	340,2	
50-250/185/P	50	50	373	222	230	60	185	115	313	410	745	440	-	-	1031	300	-	-	358,2	
50-250/220/P	50	50	373	222	230	60	185	115	313	410	745	440	-	-	1031	300	-	-	380,2	
65-125/30/P	65	65	323	171	190	75	140	122	174	360	646	360	776	776	761	300	137,0	137,0	127,2	
65-125/40/P	65	65	323	171	190	75	140	122	197	360	646	360	797	797	782	300	143,0	143,0	133,2	
65-125/55/P	65	65	323	198	190	75	140	122	214	360	646	360	-	880	880	300	-	170,0	170,0	
65-125/75/P	65	65	323	198	190	75	140	122	256	360	646	360	-	-	872	300	-	-	208,0	
65-160/55/P	65	65	323	198	190	75	140	122	214	360	646	360	-	880	880	300	-	170,0	170,0	
65-160/75/P	65	65	323	198	190	75	140	122	256	360	646	360	-	-	872	300	-	-	208,0	
65-160/110/P	65	65	323	228	190	75	140	122	256	360	646	360	-	-	963	300	-	-	251,0	
65-200/110/P	65	65	378	222	250	76	196	118	256	420	762	475	-	968	953	300	-	282,2	282,2	
65-200/150/P	65	65	378	222	250	76	196	118	313	420	762	475	-	-	1034	300	-	-	348,2	
65-200/185/P	65	65	378	222	250	76	196	118	313	420	762	475	-	-	1034	300	-	-	366,2	
65-250/150/P	65	65	378	222	250	76	196	118	313	420	762	475	-	-	1034	300	-	-	348,2	
65-250/185/P	65	65	378	222	250	76	196	118	313	420	762	475	-	-	1034	300	-	-	366,2	
65-250/220/P	65	65	378	222	250	76	196	118	313	420	762	475	-	-	1034	300	-	-	388,2	

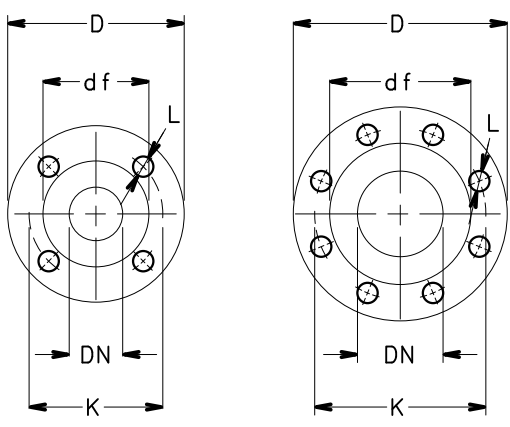
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

LNTSH-HVL-32-65\_2p50-en\_a\_id

**LNTSH 40, 50, 65 SERIES  
DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES**



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



FLANGE

EN1092-2, PN 16 *)					
DN	D	K	C	df	L
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.

A0028HVL-EN\_A\_DD

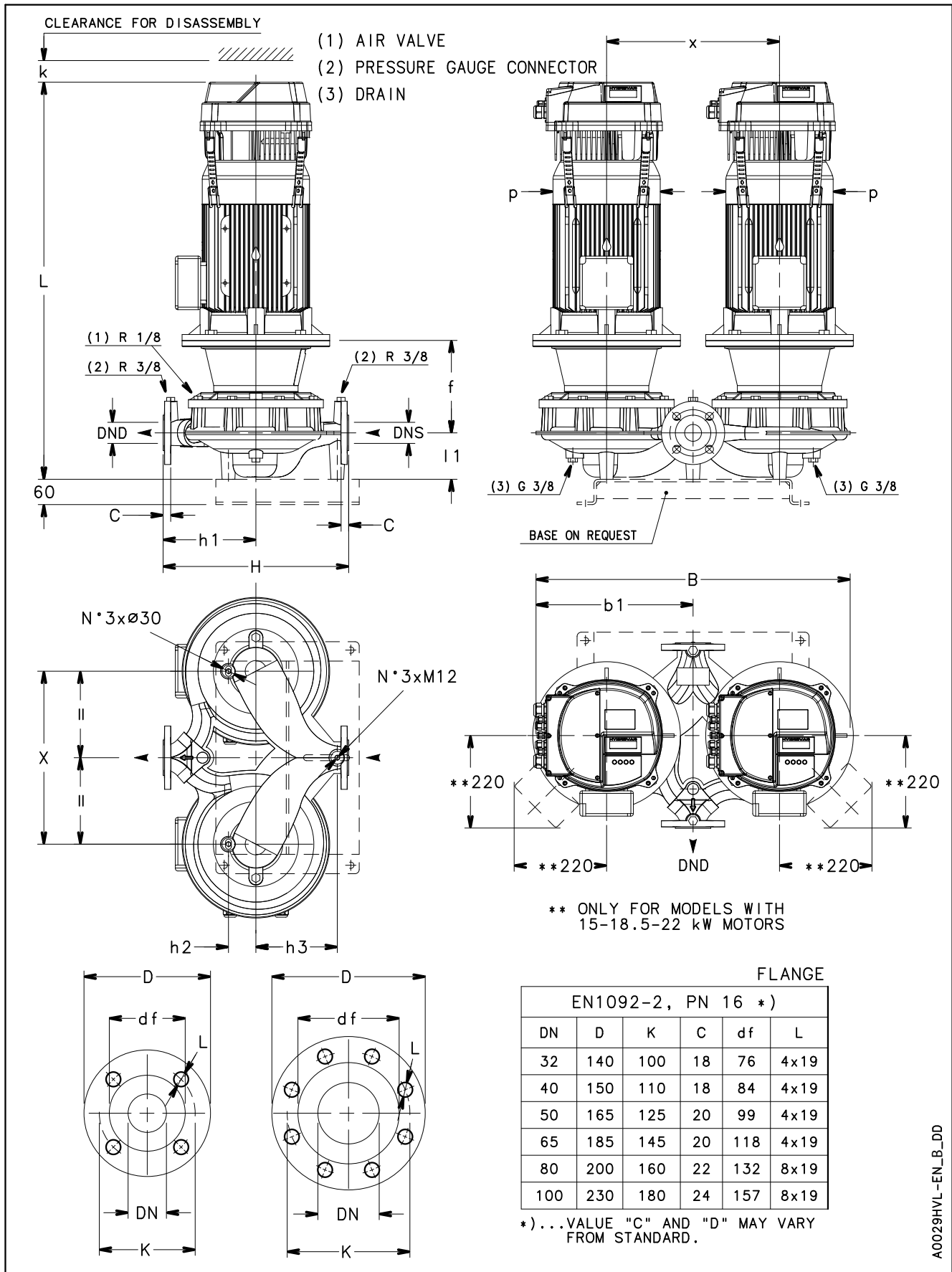
## LNTSH 40, 50, 65 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE LNTSH..4	DIMENSIONS (mm)											B	H	L			k IV	WEIGHT (kg)		
	DND	DNS	b1	f	h1	h2	h3	l1	p	x	/2			/3	/4	/2		/3	/4	
											1~230V			3~230V	3~400V	1~230V		3~230V	3~400V	
40-160/05/S	40	40	275	155	180	52	110	100	155	310	549	320	688	688	688	300	74,2	74,2	74,2	
40-160/07/X	40	40	275	155	180	52	110	100	159	310	549	320	656	656	656	300	80,2	80,2	80,2	
40-200/05/S	40	40	373	152	220	65	193	110	155	410	745	440	696	696	696	300	106,2	106,2	106,2	
40-200/07/X	40	40	373	152	220	65	193	110	159	410	745	440	664	664	664	300	112,2	112,2	112,2	
40-200/11/P	40	40	373	152	220	65	193	110	174	410	745	440	731	731	731	300	124,2	124,2	124,2	
40-250/11/P	40	40	373	152	220	65	193	110	174	410	745	440	731	731	731	300	124,2	124,2	124,2	
40-250/15/P	40	40	373	152	220	65	193	110	174	410	745	440	731	731	731	300	132,2	132,2	132,2	
40-250/22/P	40	40	373	162	220	65	193	110	214	410	745	440	765	765	765	300	154,2	154,2	154,2	
50-125/05/S	50	50	275	155	190	57	120	116	155	310	555	340	704	704	704	300	83,2	83,2	83,2	
50-160/05/S	50	50	275	155	190	57	120	116	155	310	555	340	704	704	704	300	83,2	83,2	83,2	
50-160/07/X	50	50	275	155	190	57	120	116	159	310	555	340	672	672	672	300	89,2	89,2	89,2	
50-160/11/P	50	50	275	155	190	57	120	116	174	310	555	340	739	739	739	300	101,2	101,2	101,2	
50-200/07/X	50	50	373	155	230	60	185	115	159	410	745	440	671	671	671	300	124,2	124,2	124,2	
50-200/11/P	50	50	373	155	230	60	185	115	174	410	745	440	738	738	738	300	136,2	136,2	136,2	
50-200/15/P	50	50	373	155	230	60	185	115	174	410	745	440	738	738	738	300	144,2	144,2	144,2	
50-250/11/P	50	50	373	155	230	60	185	115	174	410	745	440	738	738	738	300	136,2	136,2	136,2	
50-250/15/P	50	50	373	155	230	60	185	115	174	410	745	440	738	738	738	300	144,2	144,2	144,2	
50-250/22/P	50	50	373	165	230	60	185	115	214	410	745	440	772	772	772	300	165,2	165,2	165,2	
50-250/30/P	50	50	373	165	230	60	185	115	214	410	745	440	818	818	803	300	184,0	184,0	174,2	
65-125/05/S	65	65	323	161	190	75	140	122	155	360	646	360	716	716	716	300	96,2	96,2	96,2	
65-125/07/X	65	65	323	161	190	75	140	122	159	360	646	360	684	684	684	300	102,2	102,2	102,2	
65-125/11/P	65	65	323	161	190	75	140	122	174	360	646	360	751	751	751	300	114,2	114,2	114,2	
65-160/07/X	65	65	323	161	190	75	140	122	159	360	646	360	684	684	684	300	102,2	102,2	102,2	
65-160/11/P	65	65	323	161	190	75	140	122	174	360	646	360	751	751	751	300	114,2	114,2	114,2	
65-160/15/P	65	65	323	161	190	75	140	122	174	360	646	360	751	751	751	300	122,2	122,2	122,2	
65-200/11/P	65	65	378	155	250	76	196	118	174	420	762	475	741	741	741	300	144,2	144,2	144,2	
65-200/15/P	65	65	378	155	250	76	196	118	174	420	762	475	741	741	741	300	152,2	152,2	152,2	
65-200/22/P	65	65	378	165	250	76	196	118	214	420	762	475	775	775	775	300	174,2	174,2	174,2	
65-250/22/P	65	65	378	165	250	76	196	118	214	420	762	475	775	775	775	300	174,2	174,2	174,2	
65-250/30/P	65	65	378	165	250	76	196	118	214	420	762	475	821	821	806	300	192,0	192,0	182,2	
65-250/40/P	65	65	378	165	250	76	196	118	214	420	762	475	850	850	835	300	230,0	230,0	220,2	

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

LNTSH-HVL-40-50-65\_4p50-en\_c\_td

**LNTSH 80, 100 SERIES**  
**DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES**





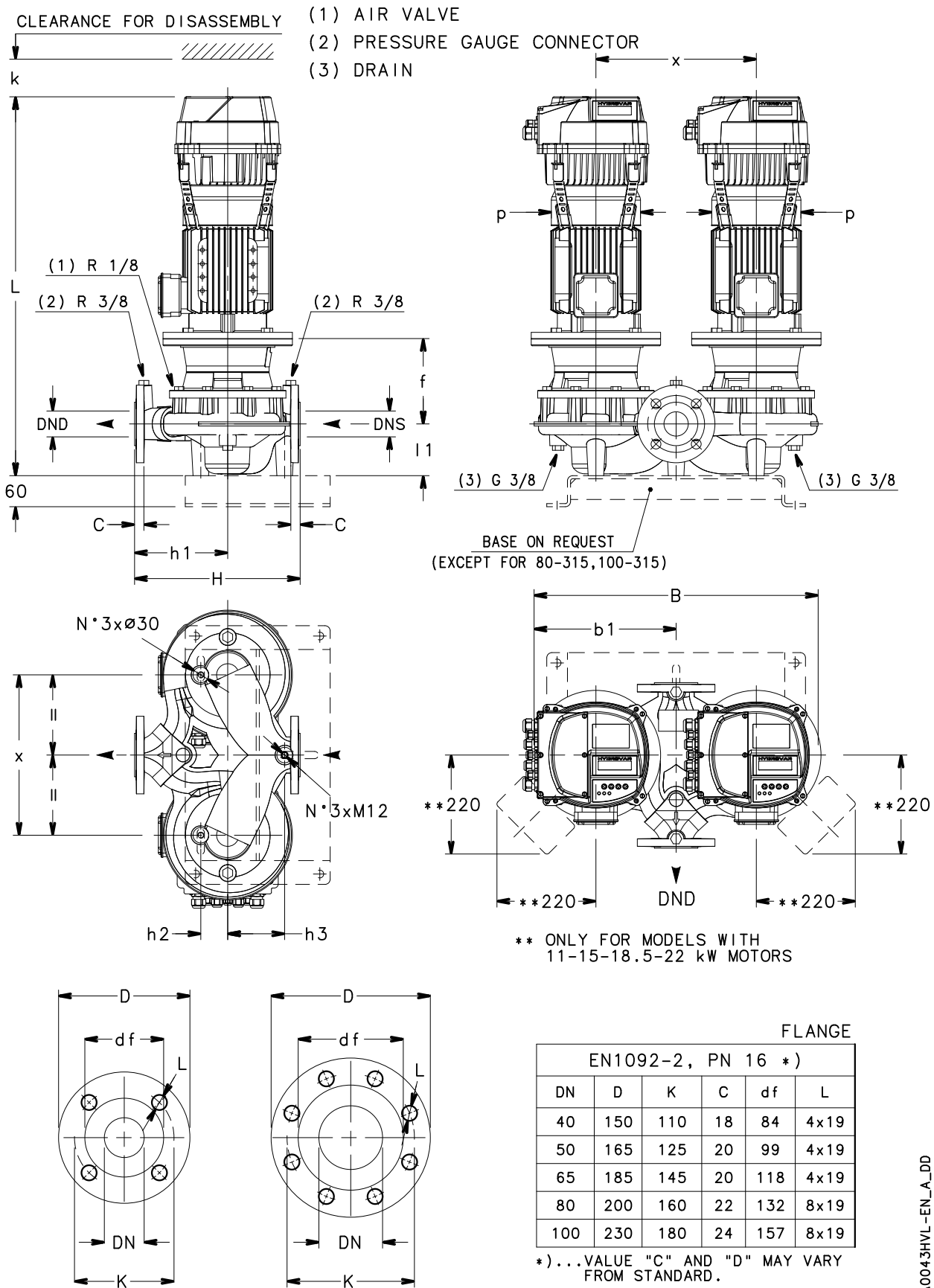
## LNTSH 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

TYPE POMPE LNTSH..2	DIMENSIONS (mm)											B	H	L			k	POIDS (kg)		
	DND	DNS	b1	f	h1	h2	h3	l1	p	x	/2			/3	/4	/2		/3	/4	
											1 ~ 230V			3 ~ 230V	3 ~ 400V	1 ~ 230V		3 ~ 230V	3 ~ 400V	
80-125/40/P	80	80	374	165	235	80	110	133	197	410	748	420	802	802	787	300	173,0	173,0	163,2	
80-125/110/P	80	80	374	222	235	80	110	133	256	410	748	420	-	983	968	300	-	290,2	280,0	
80-160/75/P	80	80	374	192	235	80	110	133	256	410	748	420	-	892	877	300	-	247,2	237,0	
80-160/110/P	80	80	374	222	235	80	110	133	256	410	748	420	-	983	968	300	-	290,2	280,0	
80-160/150/P	80	80	374	222	235	80	110	133	313	410	748	420	-	-	1049	300	-	-	356,2	
80-160/185/P	80	80	374	222	235	80	110	133	313	410	748	420	-	-	1049	300	-	-	374,2	
80-200/110/P	80	80	378	240	275	85	140	132	256	420	766	500	-	1000	985	300	-	290,2	280,0	
80-200/150/P	80	80	378	240	275	85	140	132	313	420	766	500	-	-	1066	300	-	-	356,2	
80-200/185/P	80	80	378	240	275	85	140	132	313	420	766	500	-	-	1066	300	-	-	374,2	
80-200/220/P	80	80	378	240	275	85	140	132	313	420	766	500	-	-	1066	300	-	-	396,2	
80-250/220/P	80	80	378	240	275	85	140	132	313	420	766	500	-	-	1066	300	-	-	396,2	
100-160/110/P	100	100	374	227	280	87	125	158	256	410	748	500	-	1013	998	300	-	302,2	292,0	
100-160/150/P	100	100	374	227	280	87	125	158	313	410	748	500	-	-	1079	300	-	-	368,2	
100-160/185/P	100	100	374	227	280	87	125	158	313	410	748	500	-	-	1079	300	-	-	386,2	
100-160/220/P	100	100	374	227	280	87	125	158	313	410	748	500	-	-	1079	300	-	-	408,2	
100-200/220/P	100	100	381	240	300	90	160	179	313	420	783	550	-	-	1113	300	-	-	410,2	

NOTES : pompes avec brides conformes aux normes EN 1092-2. Pour les dimensions des brides, voir dessin.

LNTSH-HVL-80-100\_2p50-fr\_b\_td

### LNTSH 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES



A0043HVL-EN\_A\_DD

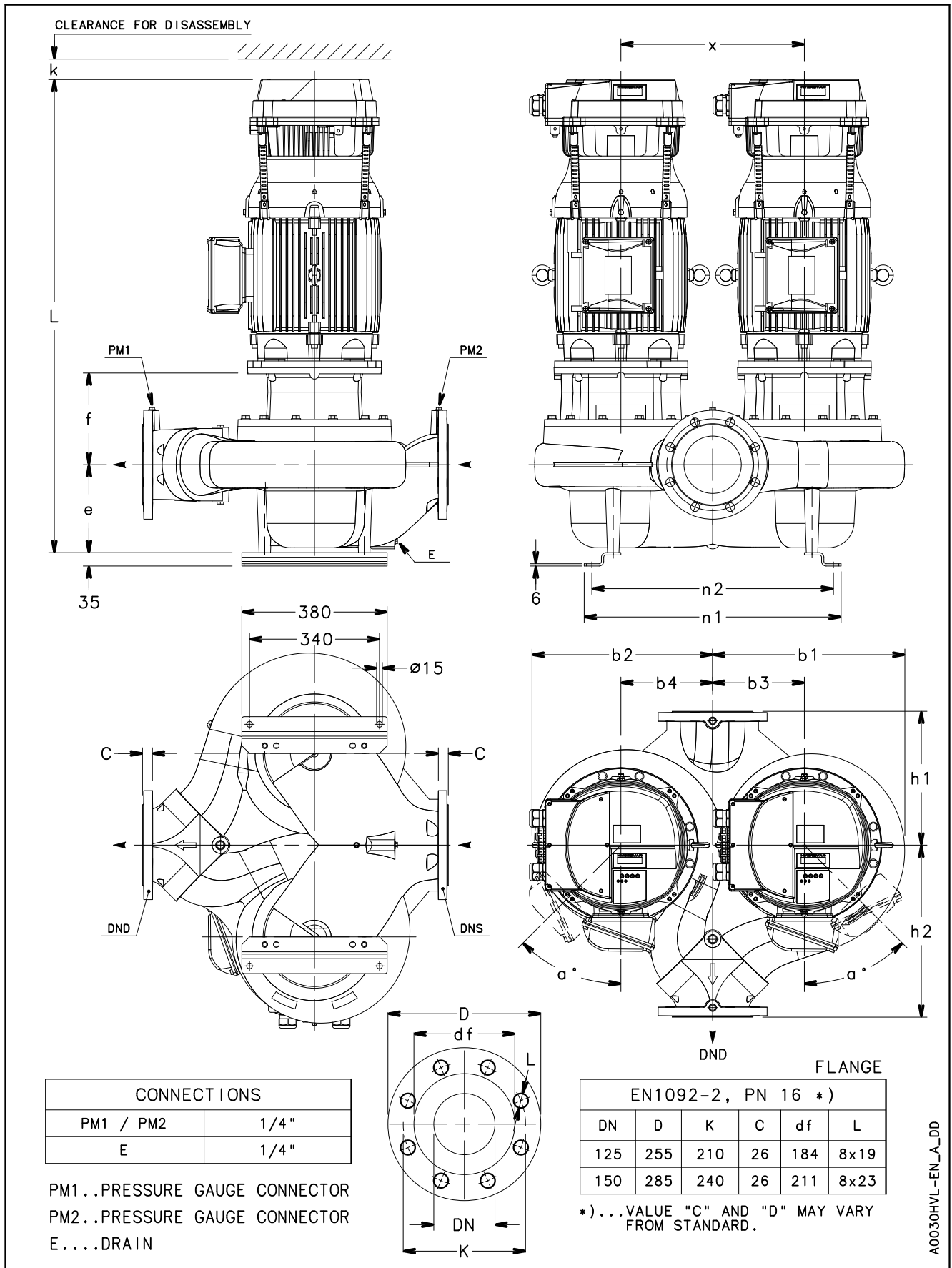
## LNTSH 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE LNTSH..4	DIMENSIONS (mm)										B	H	L			k ≅	WEIGHT (kg)		
	DND	DNS	b1	f	h1	h2	h3	l1	p	x			/2	/3	/4		/2	/3	/4
													1 ~ 230V	3 ~ 230V	3 ~ 400V		1 ~ 230V	3 ~ 230V	3 ~ 400V
80-125/05/S	80	80	374	155	235	80	110	133	155	410	748	420	721	721	721	300	125,2	125,2	125,2
80-125/15/P	80	80	374	155	235	80	110	133	174	410	748	420	756	756	756	300	160,2	160,2	160,2
80-160/11/P	80	80	374	155	235	80	110	133	174	410	748	420	756	756	756	300	152,2	152,2	152,2
80-160/15/P	80	80	374	155	235	80	110	133	174	410	748	420	756	756	756	300	160,2	160,2	160,2
80-160/22/P	80	80	374	165	235	80	110	133	24	410	748	420	790	790	790	300	182,2	182,2	182,2
80-200/15/P	80	80	378	173	275	85	140	132	174	420	766	500	773	773	773	300	181,2	181,2	181,2
80-200/22/P	80	80	378	183	275	85	140	132	214	420	766	500	807	807	807	300	202,2	202,2	202,2
80-200/30/P	80	80	378	183	275	85	140	132	214	420	766	500	853	853	838	300	220,0	220,0	210,2
80-200/40/P	80	80	378	183	275	85	140	132	214	420	766	500	882	882	867	300	258,0	258,0	248,2
80-250/30/P	80	80	378	183	275	85	140	132	214	420	766	500	853	853	838	300	200,0	200,0	190,2
80-250/40/P	80	80	378	183	275	85	140	132	214	420	766	500	882	882	867	300	238,0	238,0	228,2
80-250/55/P	80	80	378	210	275	85	140	132	256	420	766	500	-	932	932	300	-	260,0	260,0
80-250/75/P	80	80	378	210	275	85	140	132	256	420	766	500	-	947	932	300	-	278,2	268,0
80-315/75/P	80	80	433	210	330	90	140	145	256	420	851	620	-	960	945	300	-	354,2	344,0
80-315/110/P	80	80	433	240	330	90	140	145	313	420	851	620	-	1079	1064	300	-	483,2	473,0
80-315/150/P	80	80	433	240	330	90	140	145	313	420	851	620	-	-	1079	300	-	-	491,2
100-160/15/P	100	100	374	160	280	87	125	158	174	410	748	500	786	786	786	300	173,2	173,2	173,2
100-160/22/P	100	100	374	170	280	87	125	158	214	410	748	500	820	820	820	300	194,2	194,2	194,2
100-160/30/P	100	100	374	170	280	87	125	158	214	410	748	500	866	866	851	300	212,0	212,0	202,2
100-200/30/P	100	100	381	183	300	90	160	179	214	420	783	550	900	900	885	300	214,0	214,0	204,2
100-200/40/P	100	100	381	183	300	90	160	179	214	420	783	550	929	929	914	300	252,0	252,0	242,2
100-200/55/P	100	100	381	210	300	90	160	179	256	420	783	550	-	979	979	300	-	274,0	274,0
100-250/55/P	100	100	381	210	300	90	160	179	256	420	783	550	-	979	979	300	-	274,0	274,0
100-250/75/P	100	100	381	210	300	90	160	179	256	420	783	550	-	994	979	300	-	292,2	282,0
100-250/110/P	100	100	381	240	300	90	160	179	313	420	783	550	-	1113	1098	300	-	402,2	392,0
100-315/110/P	100	100	453	240	360	110	155	175	313	420	883	670	-	1109	1094	300	-	514,2	504,0
100-315/150/P	100	100	453	240	360	110	155	175	313	420	883	670	-	-	1109	300	-	-	522,2
100-315/185/W	100	100	453	240	360	110	155	175	360	420	883	670	-	-	1169	300	-	-	600,2
100-315/220/W	100	100	453	240	360	110	155	175	360	420	883	670	-	-	1207	300	-	-	634,2

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

LNTSH-HVL-80-100\_4p50-en\_c\_td

**LNTSH 125, 150 SERIES  
DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES**



## LNTSH 125, 150 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

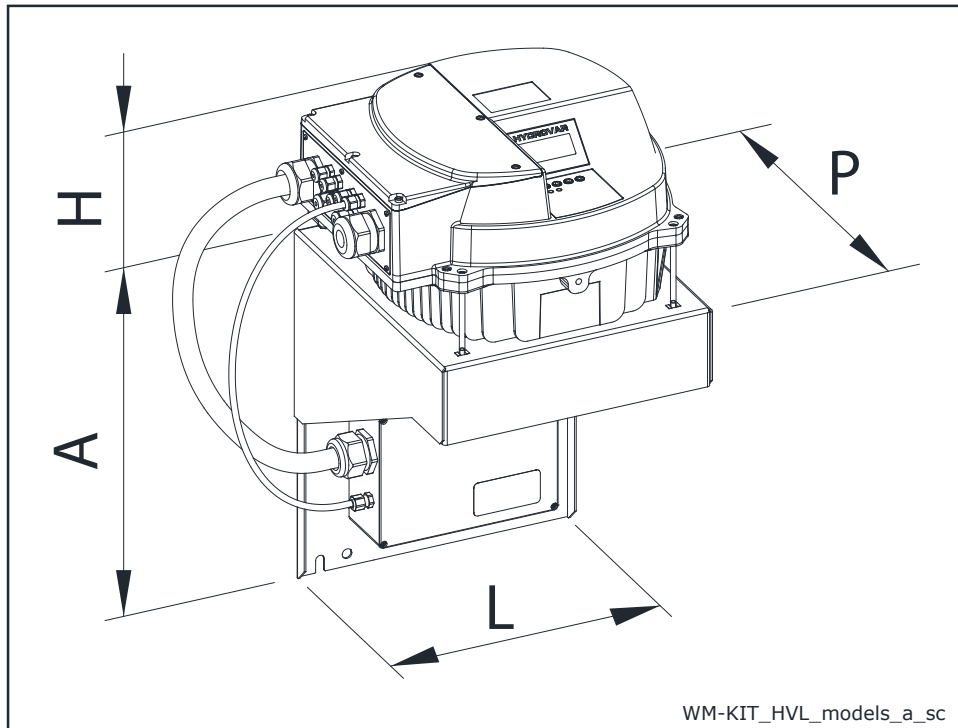
PUMP TYPE LNTSH..4	DIMENSIONS (mm)														L			k IV	WEIGHT (kg)		
	DND	DNS	a°	e	f	h1	h2	n1	n2	b1	b2	b3	b4	x	/2	/3	/4		/2	/3	/4
															1~230V	3~230V	3~400V		1~230V	3~230V	3~400V
125-160/22/P	125	125	0	200	183	280	340	572	532	412	365	235	160	395	875	875	875	300	238,6	238,6	238,6
125-160/30/P	125	125	0	200	183	280	340	572	532	412	365	235	160	395	921	921	906	300	256,5	256,5	251,6
125-160/40/P	125	125	0	200	183	280	340	572	532	412	365	235	160	395	950	950	935	300	299,5	299,5	294,6
125-200/55/P	125	125	0	200	210	280	340	572	532	412	365	235	160	395	-	1000	1000	300	-	319,5	319,5
125-200/75/P	125	125	0	200	210	280	340	572	532	412	365	235	160	395	-	1015	1000	300	-	334,6	329,5
125-250/75/P	125	125	0	230	215	350	450	652	612	480	516	250	250	500	-	1050	1035	300	-	418,6	413,5
125-250/110/P	125	125	45	230	245	350	450	652	612	480	516	250	250	500	-	1169	1154	300	-	462,6	457,5
125-315/150/P	125	125	45	230	245	350	450	652	612	480	516	250	250	500	-	-	1169	300	-	-	580,6
125-315/185/W	125	125	45	230	245	350	450	652	612	480	516	250	250	500	-	-	1229	300	-	-	682,6
125-315/220/W	125	125	45	230	245	350	450	652	612	480	516	250	250	500	-	-	1267	300	-	-	718,6
150-200/55/P	150	150	0	230	225	375	425	672	632	430	478	235	235	470	-	1045	1045	300	-	407,5	407,5
150-200/75/P	150	150	0	230	225	375	425	672	632	430	478	235	235	470	-	1060	1045	300	-	421,6	416,5
150-200/110/P	150	150	45	230	255	375	425	672	632	430	478	235	235	470	-	1179	1164	300	-	465,6	460,5
150-250/110/P	150	150	45	230	240	350	450	632	592	416	465	218	218	435	-	1164	1149	300	-	439,6	434,5
150-250/150/P	150	150	45	230	240	350	450	632	592	416	465	218	218	435	-	-	1164	300	-	-	523,6
150-315/185/W	150	150	30	230	254	350	450	672	632	466	503	240	240	480	-	-	1238	300	-	-	684,6
150-315/220/W	150	150	30	230	254	350	450	672	632	466	503	240	240	480	-	-	1276	300	-	-	720,6

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

LNTSH-HVL-125-150\_4p50-en\_b\_ld

## HYDROVAR HVL (WALL MOUNTING KIT) DIMENSIONS AND WEIGHTS

As an option a HYDROVAR wall mounting kit is also available, this is used where mounting on the pump unit is impossible or where you would like the controls in another location, these are available for the new generation HYDROVAR HVL 2.015-4.220 (22 kW). The speed of the cooling fan modulates with the HYDROVAR usage which optimizes energy consumption and also reduces noise.



WM KIT TYPE	kW	WM KIT POWER SUPPLY	HVL SIZE	DIMENSIONS (mm)				WEIGHT (kg)	
				A	H	L	P	HVL	WM KIT
WM KIT HVL 2.015	1,5	1~ 230V	A	220	170	202	232	5,6	2,6
WM KIT HVL 2.022	2,2			220	170	202	232	5,6	2,6
WM KIT HVL 2.030	3		B	240	175	258	290	10,5	8,2
WM KIT HVL 2.040	4			320	175	288	305	10,5	5,4
WM KIT HVL 3.015	1,5	3~ 230V	A	220	170	202	232	5,6	2,6
WM KIT HVL 3.022	2,2			220	170	202	232	5,6	2,6
WM KIT HVL 3.030	3		B	240	175	258	290	10,5	8,2
WM KIT HVL 3.040	4			240	175	258	290	10,5	8,2
WM KIT HVL 3.055	5,5		C	240	175	258	290	10,5	8,2
WM KIT HVL 3.075	7,5			400	200	325	365	15,6	11,6
WM KIT HVL 3.110	11		400	200	325	365	15,6	11,6	
WM KIT HVL 4.015	1,5		3~ 400V	A	240	170	258	290	5,6
WM KIT HVL 4.022	2,2	240			170	258	290	5,6	8,2
WM KIT HVL 4.030	3	240			170	258	290	5,6	8,2
WM KIT HVL 4.040	4	240			170	258	290	5,6	8,2
WM KIT HVL 4.055	5,5	B		240	175	258	290	10,5	8,2
WM KIT HVL 4.075	7,5			240	175	258	290	10,5	8,2
WM KIT HVL 4.110	11	C		320	175	288	305	10,5	5,4
WM KIT HVL 4.150	15			400	200	325	365	15,6	11,6
WM KIT HVL 4.185	18,5			400	200	325	365	15,6	11,6
WM KIT HVL 4.220	22			400	200	325	365	15,6	11,6

WM-KIT\_HVL\_models-EN\_b\_td

**e-LNT..E  
VERSION WITH DRIVE  
AND PERMANENT  
MAGNET MOTOR  
(e-SM Drive)**

## e-LNT..E e-LNT SMART SERIES

### Background and context

In every sector, from construction and industry to agriculture and building services the need for intelligent, compact and high-efficiency pumping systems is constantly growing.

That's why Lowara has developed the e-LNT series: an integrated intelligent pumping system with electronically driven, permanent magnet motor (IE5 efficiency level). The integrated control system, combined with the high performance, power and efficiency from the motor and hydraulics, guarantees impressively low operating costs. You also benefit from flexibility, precision and its ultra-compact size.

### Savings

The electronics and permanent magnet motor are highly efficient and minimize power losses while transferring maximum energy to the hydraulic parts of the pump.

The refined control system with integrated microprocessor adjusts the motor speed, matching the required operating point of the pump or system requirements.

This reduces demand on electricity according to the required working conditions.

This creates economies, especially in systems where pump demand varies over time.

### Flexibility

The compact size, low loss and increased control make the e-LNT Smart series a good choice in applications and systems where fixed speed pumps are commonly used. The e-LNT Smart series is easy to integrate in control and regulation loops thanks to the wide availability of compatible communication protocols, including analog and digital inputs.

The pump is supplied as sensorless solution, as standard. This ensures an easier, faster and cheaper installation. Additional pressure sensors can be provided as accessories.

### Ease of use and commissioning

e-LNT Smart has an intuitive interface that guides the user through the installation, and a practical area to assist with connections.

The control system is integrated and no additional external electrical panel is required.

### Application sectors

- Water supply systems in residential buildings
- Air conditioning
- Water treatment plants
- Industrial installations
- Domestic hot water systems



### e-SM System

- IES2 efficiency level (IEC 61800-9-2)
- 230V +/- 10% single phase power supply, 50/60 Hz
- Three phase power supply:
  - from 0,37kW to 1,5kW: 230/400V +/- 10%, 50/60 Hz
  - 2,2kW: 400V +/- 10%, 50/60 Hz
- Power up to 2,2 kW
- Protection class IP55
- Dry-run protection
- The system is protected against over temperature

### Pump

- Flow rate:
  - up to 44 m<sup>3</sup>/h (one pump running)
  - up to 79 m<sup>3</sup>/h (two pumps running)
- Head: up to 39 m
- Environment temperature: -20°C to +50°C with no performance derating
- Temperature\* of pumped liquid: up to +140°C
- Maximum operating pressure\* 16 bar (PN 16)
- The hydraulic performances meet the tolerances specified in ISO 9906:2012

### Motor

- IE5 efficiency level (IEC TS 60034-30-2:2016)
- Synchronous electric motor with permanent magnets (TEFC), closed structure, air-cooled
- Insulation class 155 (F)
- Overload protection and locked rotor with automatic reset incorporated

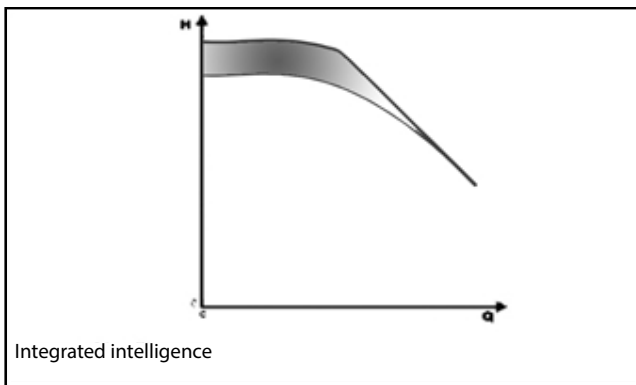
\* Pressure/temperature limits for e-LNT Smart are the same as the pump unit (page 16).



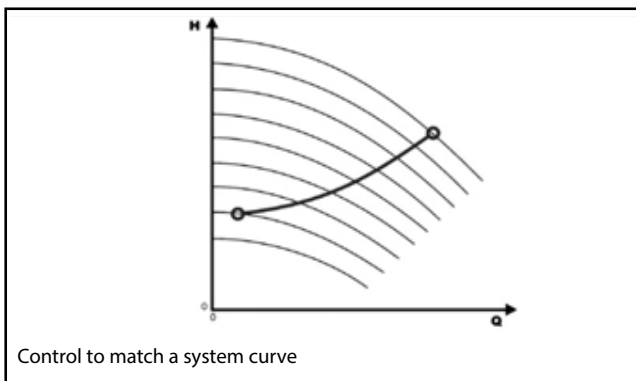
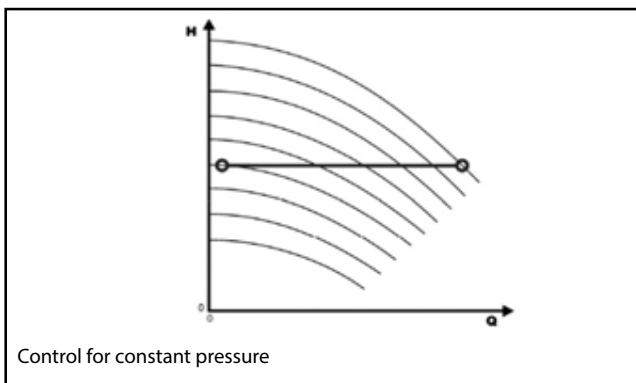
**e-LNT..E**  
**e-LNT SMART SERIES**

e-LNT Smart series is equipped with an intelligent control that optimizes hydraulic performance while minimizing waste.

**Integrated intelligence:** The electronic control of the motor enables a 20% increase in performance compared to an equivalent fixed speed pump (area highlighted in figure "Integrated intelligence").

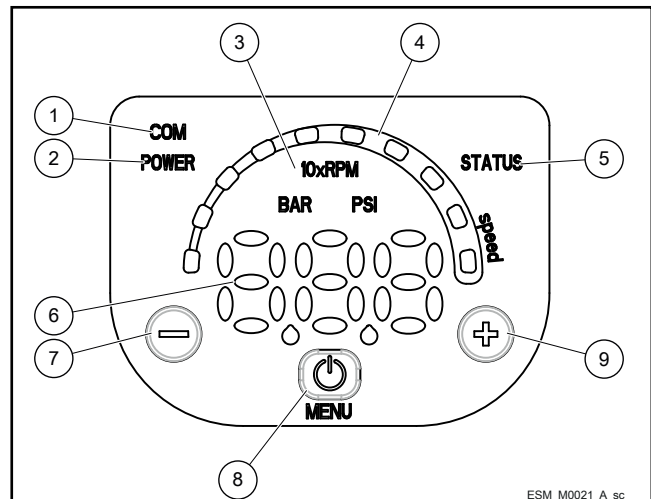


**Adjustment:** This is possible both at constant pressure and according to the characteristic curve of the system, based on the customer's preferences. Another option is according to an external signal or at a preset speed.

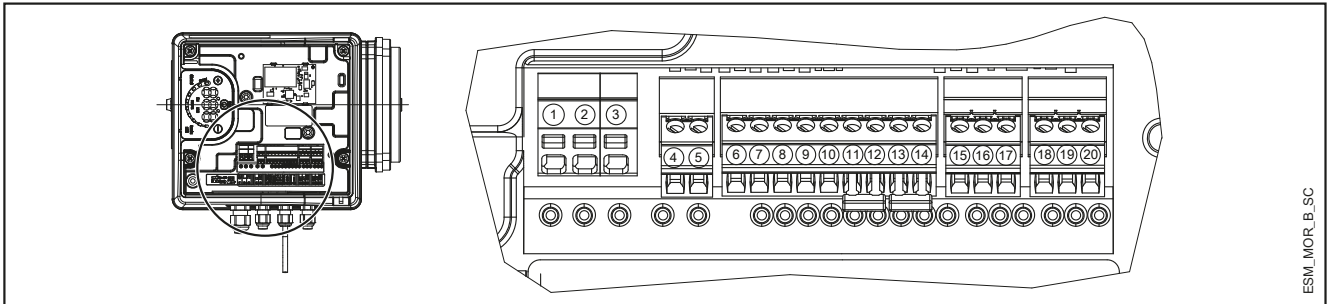


**Intuitive and simple interface:** You can control the unit from just three buttons, with an easy to read display for parameters and alarms, designed for complete control of system operation.

- ① Communication LED
- ② Power on LED
- ③ Unit of measure LED
- ④ Speed LED bar
- ⑤ Status LED
- ⑥ Numeric display
- ⑦ Decrease key
- ⑧ On/off and menu key
- ⑨ Increase key



## e-LNT..E SERIES SINGLE-PHASE TERMINAL BOARD

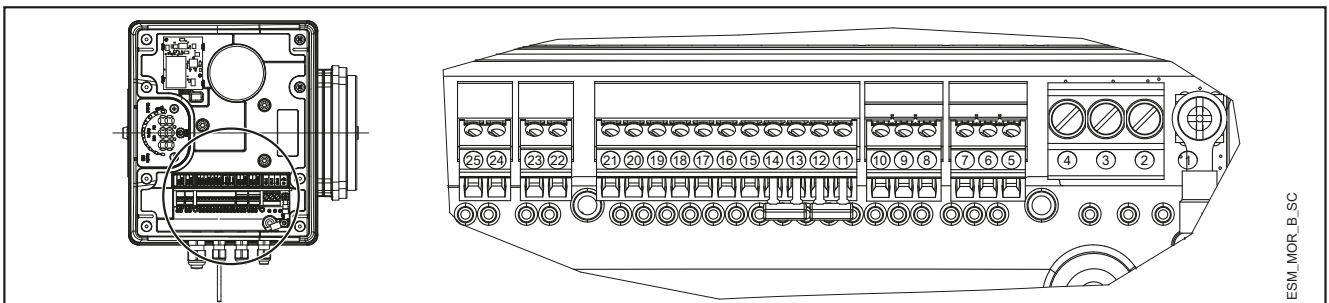


ESM\_MOR\_B\_SC

REF.	ITEM	DESCRIPTION
4	Fault Signal	COM - error status relay
5		NO - error status relay
6	Auxiliary Voltage Supply	Auxiliary voltage supply +15 VDC
7	Analog input 0-10V	Actuator mode 0-10 V input
8		GND for 0-10 V input
9	External Pressure sensor [also Differential]	Power supply external sensor +15 VDC
10		External sensor 4-20 mA input
11	External Start/Stop	External ON/OFF input reference
12		External ON/OFF input
13	External Lack of Water	Low water input
14		Low water reference
15	Communication bus	RS485 port 1: RS485-1N B (-)
16		RS485 port 1: RS485-1P A (+)
17		Electronic GND
18	Communication bus	RS485 port 2: RS485 port 2: RS485-2N B (-) active only with optional module
19		RS485 port 2: RS485 port 2: RS485-2P A (+) active only with optional module
20		Electronic GND

MorsM-en\_a\_sc

## THREE-PHASE TERMINAL BOARD



ESM\_MOR\_B\_SC

REF.	ITEM	DESCRIPTION
5		Electronic GND
6	Communication bus	RS485 port 1: RS485-1P A (+)
7		RS485 port 1: RS485-1N B (-)
8		Electronic GND
9	Communication bus	RS485 port 2: RS485 port 2: RS485-2P A (+) active only with optional module
10		RS485 port 2: RS485 port 2: RS485-2N B (-) active only with optional module
11	External Lack of Water	Low water reference
12		Low water input
13	External Start/Stop	External ON/OFF input reference
14		External ON/OFF input
15	External Pressure sensor	External sensor 4-20 mA input
16		Power supply external sensor +15 VDC
17	External Pressure sensor [also Differential]	External sensor 4-20 mA input
18		Power supply external sensor +15 VDC
19	Analog input 0-10V	GND for 0-10 V input
20		Actuator mode 0-10 V input
21	Auxiliary Voltage Supply	Auxiliary voltage supply +15 VDC
22	Motor running signal	Normally open contact
23		Common contact
24	Fault Signal	NO - error status relay
25		COM - error status relay

MorsT-en\_a\_sc

## e-LNT..E SERIES - SINGLE OPERATION HYDRAULIC PERFORMANCE TABLE

PUMP TYPE LNT..E Single Operation	MOTOR PN kW	Q = DELIVERY										
		l/min 0	73,3	146,7	220,0	293,3	366,7	440,0	513,3	586,7	660,0	733,3
		m <sup>3</sup> /h 0	4,4	8,8	13,2	17,6	22,0	26,4	30,8	35,2	39,6	44,0
H = TOTAL HEAD IN METRES OF COLUMN OF WATER												
32-160/03	0,37	10,3	10,7	8,4	3,9							
32-160/05	0,55	14,3	14,9	12,3	7,6							
32-160/07	0,75	24,2	20,4	14,6	8,9	2,9						
32-160/15	1,5	34,5	33,1	26,1	19,2	12,6						
32-160/22	2,2	38,5	39,6	39,9	32,7	25,0	18,2	10,2				
40-125/03	0,37	8,2	8,2	5,8	3,5							
40-125/05	0,55	13,4	13,4	10,6	7,7	4,9						
40-125/11	1,1	21,9	22,5	18,6	14,9	11,5	8,1					
40-125/15	1,5	25,8	26,7	26,2	22,1	17,9	14,1	10,2				
40-125/22	2,2	34,9	35,8	36,3	31,1	26,3	21,9	17,5	13,2	8,6		
50-125/05	0,55	8,3	8,2	8,0	6,6	5,5	4,5					
50-125/11	1,1	13,4	13,1	12,2	10,9	9,5	8,0	6,4	4,8			
50-125/15	1,5	18,7	18,6	18,0	16,6	14,7	12,9	11,3	9,8	8,3		
50-125/22	2,2	25,8	25,7	25,7	24,8	22,4	20,1	17,9	15,8	13,8	11,9	9,9

Int-esmT-2p5-en\_a\_th

## ELECTRICAL DATA TABLE

PUMP TYPE LNT..E Single Operation	SINGLE-PHASE VERSION				THREE-PHASE VERSION				
	MOTOR		e-SM SET		MOTOR		e-SM SET		
	P <sub>N</sub> kW	TYPE 1x230 V	* P <sub>1</sub> kW	220-240 V A	P <sub>N</sub> kW	TYPE 1x230 V	* P <sub>1</sub> kW	220-240 V A	380-460 V A
32-160/03	0,37	ESM90R../103	0,50	2,62-2,29	0,37	ESM90R../303	0,50	2,12-1,96	1,48-1,33
32-160/05	0,55	ESM90R../105	0,73	3,73-3,24	0,55	ESM90R../305	0,76	3,21-2,93	2,13-1,9
32-160/07	0,75	ESM90R../107	0,90	4,43-3,84	0,75	ESM90R../307	0,90	3,91-3,43	2,53-2,29
32-160/15	1,5	ESM90R../115	1,58	7,75-6,61	1,5	ESM90R../315	1,64	6,17-5,66	4,11-3,62
32-160/22	-	-	-	-	2,2	ESM90R../322	2,47	-	5,90-5,20
40-125/03	0,37	ESM90R../103	0,34	1,91-1,67	0,37	ESM90R../303	0,36	1,69-1,57	1,22-1,12
40-125/05	0,55	ESM90R../105	0,62	3,05-2,65	0,55	ESM90R../305	0,65	2,63-2,41	1,78-1,59
40-125/11	1,1	ESM90R../111	1,17	5,7-4,87	1,1	ESM90R../311	1,23	4,72-4,36	3,14-2,77
40-125/15	1,5	ESM90R../115	1,77	8,55-7,36	1,5	ESM90R../315	1,80	6,78-6,16	4,54-4,02
40-125/22	-	-	-	-	2,2	ESM90R../322	2,57	-	5,90-5,20
50-125/05	0,55	ESM90R../105	0,60	3,02-2,63	0,55	ESM90R../305	0,61	2,61-2,39	1,77-1,58
50-125/11	1,1	ESM90R../111	1,00	4,88-4,17	1,1	ESM90R../311	1,02	4,11-3,82	2,74-2,42
50-125/15	1,5	ESM90R../115	1,77	8,17-7,02	1,5	ESM90R../315	1,72	6,52-6,08	4,48-3,97
50-125/22	-	-	-	-	2,2	ESM90R../322	2,44	-	5,86-5,16

\* Maximum value in specified range: P<sub>1</sub> = input power; I = input current.

Int-esm-2p5-en\_a\_te

## e-LNT..E SERIES - PARALLEL OPERATION HYDRAULIC PERFORMANCE TABLE

PUMP TYPE LNT..E Parallel Operation	MOTOR PN kW	Q = DELIVERY										
		l/min 0	133,3	266,7	400,0	533,3	666,7	800,0	933,3	1066,7	1200,0	1320,0
		m <sup>3</sup> /h 0	8,0	16,0	24,0	32,0	40,0	48,0	56,0	64,0	72,0	79,2
H = TOTAL HEAD IN METRES OF COLUMN OF WATER												
32-160/03	0,37	10,6	10,4	8,0	3,0							
32-160/05	0,55	14,4	14,2	11,8	7,5							
32-160/07	0,75	24,1	17,1	13,7	8,6	2,0						
32-160/15	1,5	33,6	31,8	25,0	18,0	10,9						
32-160/22	2,2	38,4	38,4	34,9	30,1	23,3	14,4	3,4				
40-125/03	0,37	8,4	7,3	5,2	2,8							
40-125/05	0,55	13,4	12,1	9,9	7,2	4,1						
40-125/11	1,1	22,0	20,5	17,3	14,1	10,6	6,7					
40-125/15	1,5	25,9	25,4	22,8	19,8	16,5	12,7	8,4				
40-125/22	2,2	34,8	34,6	31,3	28,0	24,3	19,9	15,2	10,3	5,3		
50-125/05	0,55	8,3	8,1	7,1	6,2	5,0	3,6					
50-125/11	1,1	13,4	12,6	11,3	10,1	8,9	7,3	5,5	3,4			
50-125/15	1,5	18,7	18,0	16,3	14,6	12,9	11,2	9,6	7,8	5,8		
50-125/22	2,2	25,8	25,5	23,9	21,2	19,0	17,5	16,0	13,9	11,3	8,5	6,1

Int-esmT-2pP-en\_a\_th

## e-LNT..E SERIES - SINGLE PHASE VERSION ELECTRICAL DATA TABLE

In the range 3000-3600 rpm the nominal motor power is guaranteed. Above 3600 rpm it is not possible work and the motor is automatically limited; below 3000 rpm the motor works partially load.

P <sub>N</sub> kW	MOTOR TYPE	IEC SIZE*	Construction Design	SPEED (RPM)** min <sup>-1</sup>	INPUT CURRENT I (A) 208-240 V	DATA RELATED TO THE VOLTAGE OF 230V						
						I <sub>n</sub> A	cosφ	T <sub>n</sub> Nm	η %			IES
									4/4	3/4	2/4	
0,37	ESM90R/103 LNEE	90R	Special	3000	2,28-1,99	2,08	0,95	1,18	81,3	79,1	74,3	2
				3600	2,30-2,02	2,10		0,98	80,6	77,5	72,0	
	ESM90RS8/103 LNEE		Special	3000	2,28-1,99	2,08	0,95	1,18	81,3	79,1	74,3	2
				3600	2,30-2,02	2,10		0,98	80,6	77,5	72,0	
	ESM90RS8/103 LNEE		B5	3000	2,28-1,99	2,08	0,95	1,18	81,3	79,1	74,3	2
				3600	2,30-2,02	2,10		0,98	80,6	77,5	72,0	
0,55	ESM90R/105 LNEE	90R	Special	3000	3,27-2,85	2,96	0,97	1,75	83,3	82,2	78,8	2
				3600	3,27-2,85	2,96		1,46	83,3	81,5	77,5	
	ESM90RS8/105 LNEE		Special	3000	3,27-2,85	2,96	0,97	1,75	83,3	82,2	78,8	2
				3600	3,27-2,85	2,96		1,46	83,3	81,5	77,5	
	ESM90RS8/105 LNEE		B5	3000	3,27-2,85	2,96	0,97	1,75	83,3	82,2	78,8	2
				3600	3,27-2,85	2,96		1,46	83,3	81,5	77,5	
0,75	ESM90R/107 LNEE	90R	Special	3000	4,43-3,84	4,00	0,98	2,39	83,3	83,3	81,5	2
				3600	4,38-3,79	3,94		1,99	84,5	83,5	80,6	
	ESM90RS8/107 LNEE		Special	3000	4,43-3,84	4,00	0,98	2,39	83,3	83,3	81,5	2
				3600	4,38-3,79	3,94		1,99	84,5	83,5	80,6	
	ESM90RS8/107 LNEE		B5	3000	4,43-3,84	4,00	0,98	2,39	83,3	83,3	81,5	2
				3600	4,38-3,79	3,94		1,99	84,5	83,5	80,6	
1,10	ESM90R/111 LNEE	90R	Special	3000	6,26-5,35	5,64	0,99	3,50	85,7	85,1	82,7	2
				3600	6,20-5,32	5,63		2,92	85,9	84,6	81,4	
	ESM90RS8/111 LNEE		Special	3000	6,26-5,35	5,64	0,99	3,50	85,7	85,1	82,7	2
				3600	6,20-5,32	5,63		2,92	85,9	84,6	81,4	
	ESM90RS8/111 LNEE		B5	3000	6,26-5,35	5,64	0,99	3,50	85,7	85,1	82,7	2
				3600	6,20-5,32	5,63		2,92	85,9	84,6	81,4	
1,50	ESM90R/115 LNEE	90R	Special	3000	8,57-7,32	7,69	0,99	4,77	85,6	85,7	84,7	2
				3600	8,42-7,25	7,62		3,98	86,3	85,9	84,0	
	ESM90RS8/115 LNEE		Special	3000	8,57-7,32	7,69	0,99	4,77	85,6	85,7	84,7	2
				3600	8,42-7,25	7,62		3,98	86,3	85,9	84,0	
	ESM90RS8/115 LNEE		B5	3000	8,57-7,32	7,69	0,99	4,77	85,6	85,7	84,7	2
				3600	8,42-7,25	7,62		3,98	86,3	85,9	84,0	

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

LNE\_Smart-motm\_en\_a\_te

\*\* The indicated rotational speed are representing the upper and lower limits of the rated power operational speed range.

## e-LNT..E SERIES - THREE PHASE VERSION ELECTRICAL DATA TABLE

In the range 3000-3600 rpm the nominal motor power is guaranteed. Above 3600 rpm it is not possible work and the motor is automatically limited; below 3000 rpm the motor works partially load.

P <sub>N</sub> kW	MOTOR TYPE	IEC SIZE*	Construction Design	SPEED (RPM)** min <sup>-1</sup>	INPUT CURRENT I (A) 208-240/380-460 V	DATA RELATED TO THE VOLTAGE OF 400V						IES
						I <sub>n</sub> A	cosφ	T <sub>n</sub> Nm	η %			
									4/4	3/4	2/4	
0,37	ESM90R/303 LNEE	90R	Special	3000	2,01-1,85/1,41-1,28	1,42	0,48	1,18	78,6	75,6	70,1	2
				3600	2,13-1,83/1,43-1,33	1,36		0,98	83,1	80,7	76,1	
	ESM90RS8/303 LNEE		Special	3000	2,01-1,85/1,41-1,28	1,42	0,48	1,18	78,6	75,6	70,1	2
				3600	2,13-1,83/1,43-1,33	1,36		0,98	83,1	80,7	76,1	
	ESM90R/303 B5		B5	3000	2,01-1,85/1,41-1,28	1,42	0,48	1,18	78,6	75,6	70,1	2
				3600	2,13-1,83/1,43-1,33	1,36		0,98	83,1	80,7	76,1	
0,55	ESM90R/305 LNEE	90R	Special	3000	2,81-2,57/1,89-1,69	1,88	0,52	1,75	81,1	79,3	75,5	2
				3600	2,90-2,52/1,90-1,73	1,80		1,46	85,4	83,8	80,6	
	ESM90RS8/305 LNEE		Special	3000	2,81-2,57/1,89-1,69	1,88	0,52	1,75	81,1	79,3	75,5	2
				3600	2,90-2,52/1,90-1,73	1,80		1,46	85,4	83,8	80,6	
	ESM90R/305 B5		B5	3000	2,81-2,57/1,89-1,69	1,88	0,52	1,75	81,1	79,3	75,5	2
				3600	2,90-2,52/1,90-1,73	1,80		1,46	85,4	83,8	80,6	
0,75	ESM90R/307 LNEE	90R	Special	3000	3,70-3,37/2,44-2,17	2,41	0,55	2,39	81,9	81,2	78,6	2
				3600	3,74-3,28/2,43-2,20	2,31		1,99	86,1	85,5	83,1	
	ESM90RS8/307 LNEE		Special	3000	3,70-3,37/2,44-2,17	2,41	0,55	2,39	81,9	81,2	78,6	2
				3600	3,74-3,28/2,43-2,20	2,31		1,99	86,1	85,5	83,1	
	ESM90R/307 B5		B5	3000	3,70-3,37/2,44-2,17	2,41	0,55	2,39	81,9	81,2	78,6	2
				3600	3,74-3,28/2,43-2,20	2,31		1,99	86,1	85,5	83,1	
1,10	ESM90R/311 LNEE	90R	Special	3000	5,12-4,73/3,41-3,01	3,35	0,57	3,50	82,8	81,3	77,7	2
				3600	5,15-4,69/3,45-3,06	3,32		2,92	83,5	81,6	77,6	
	ESM90RS8/311 LNEE		Special	3000	5,12-4,73/3,41-3,01	3,35	0,57	3,50	82,8	81,3	77,7	2
				3600	5,15-4,69/3,45-3,06	3,32		2,92	83,5	81,6	77,6	
	ESM90R/311 B5		B5	3000	5,12-4,73/3,41-3,01	3,35	0,57	3,50	82,8	81,3	77,7	2
				3600	5,15-4,69/3,45-3,06	3,32		2,92	83,5	81,6	77,6	
1,50	ESM90R/315 LNEE	90R	Special	3000	6,73-6,17/4,49-3,95	4,39	0,59	4,77	83,1	82,8	80,6	2
				3600	6,69-6,08/4,48-3,97	4,32		3,98	84,6	83,6	80,8	
	ESM90RS8/315 LNEE		Special	3000	6,73-6,17/4,49-3,95	4,39	0,59	4,77	83,1	82,8	80,6	2
				3600	6,69-6,08/4,48-3,97	4,32		3,98	84,6	83,6	80,8	
	ESM90R/315 B5		B5	3000	6,73-6,17/4,49-3,95	4,39	0,59	4,77	83,1	82,8	80,6	2
				3600	6,69-6,08/4,48-3,97	4,32		3,98	84,6	83,6	80,8	
2,20	ESM90R/322 LNEE	90R	Special	3000	- /6,03-5,32	5,81	0,62	7	87,6	87,4	85,9	2
				3600	- /5,93-5,24	5,74		5,84	88,9	88,2	86,3	
	ESM90RS8/322 LNEE		Special	3000	- /6,03-5,32	5,81	0,62	7	87,6	87,4	85,9	2
				3600	- /5,93-5,24	5,74		5,84	88,9	88,2	86,3	
	ESM90R/322 B5		B5	3000	- /6,03-5,32	5,81	0,62	7	87,6	87,4	85,9	2
				3600	- /5,93-5,24	5,74		5,84	88,9	88,2	86,3	

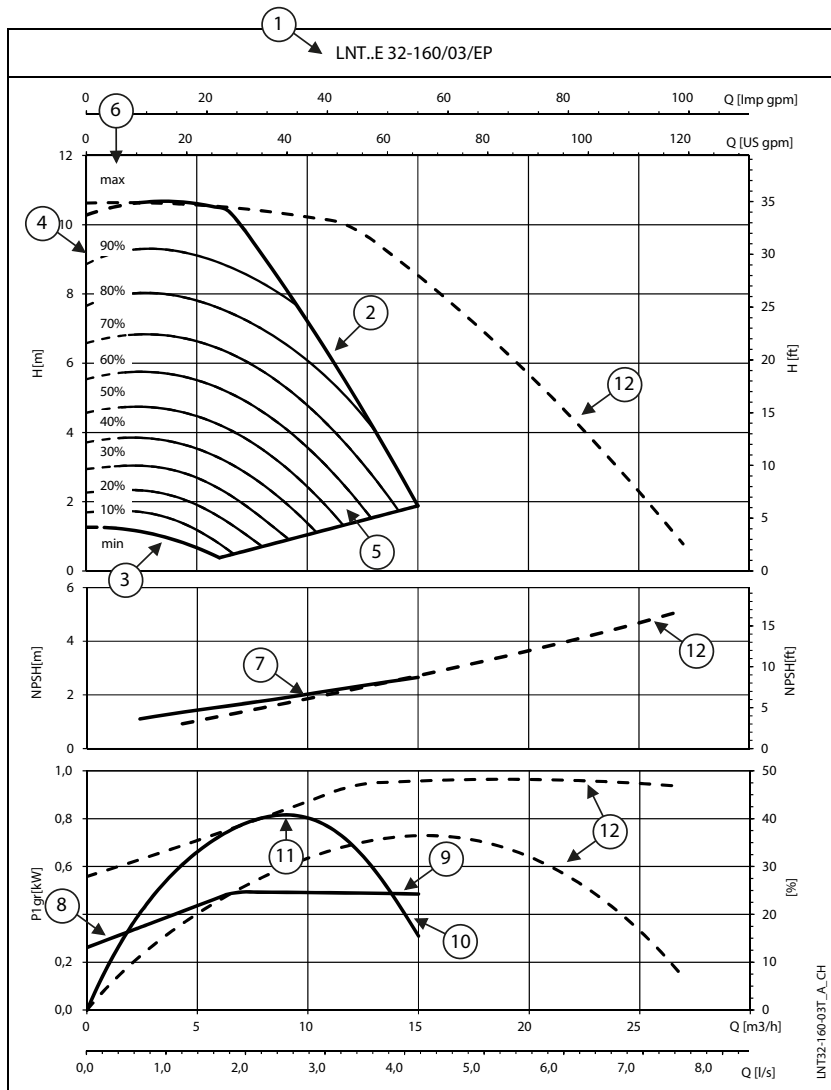
\* R = Reduced size of motor casing as compared to shaft extension and flange.

LNE\_Smart-mott\_en\_a\_te

\*\* The indicated rotational speed are representing the upper and lower limits of the rated power operational speed range.

## e-LNT..E SERIES HOW TO READ SMART PUMP SERIES CURVES

To exploit to the maximum potential of Smart Pumps it is important to properly read working curves:



① **Pump model**

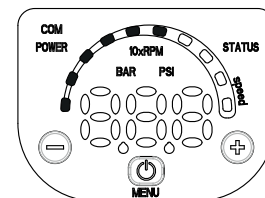
② **Maximum speed curve**

③ **Minimum speed curve:** it refers to the minimum rpm level the motor can work at, it is calculated depending on the model of pump maximizing for each one the working area and allowing the highest system flexibility.

④ The **area with dotted lines** is where the pump can only operate intermittently for short periods of time.

⑤ Each **intermediate curve** between max and min speed shows the percentage of load the pump+motor+drive system is working at; it's easy to read also from the LED speed bar on the HMI keypad: at 90% there will be 9 led, at 80% there will be 8 and so on.

Example: at 60% there will be 6 lit leds



⑥ The **part load percentage** is calculated depending on maximum speed (*max*, 100%) and minimum speed (*min*, equal to 0%, which is the minimum part load step, below it the drive stays powered up but cannot work).

⑦ **NPSH:** is the net positive suction head of pump+motor+drive system working at maximum speed.

⑧ **P1<sub>gr</sub>** is the power absorption in kW of pump+motor+drive system working at maximum speed.

⑨ **Load control:** the Smart Pump controls and limits power consumption at high flow/low head, in this way the motor stays protected from overload and ensure a longer life of pump+motor+drive system.

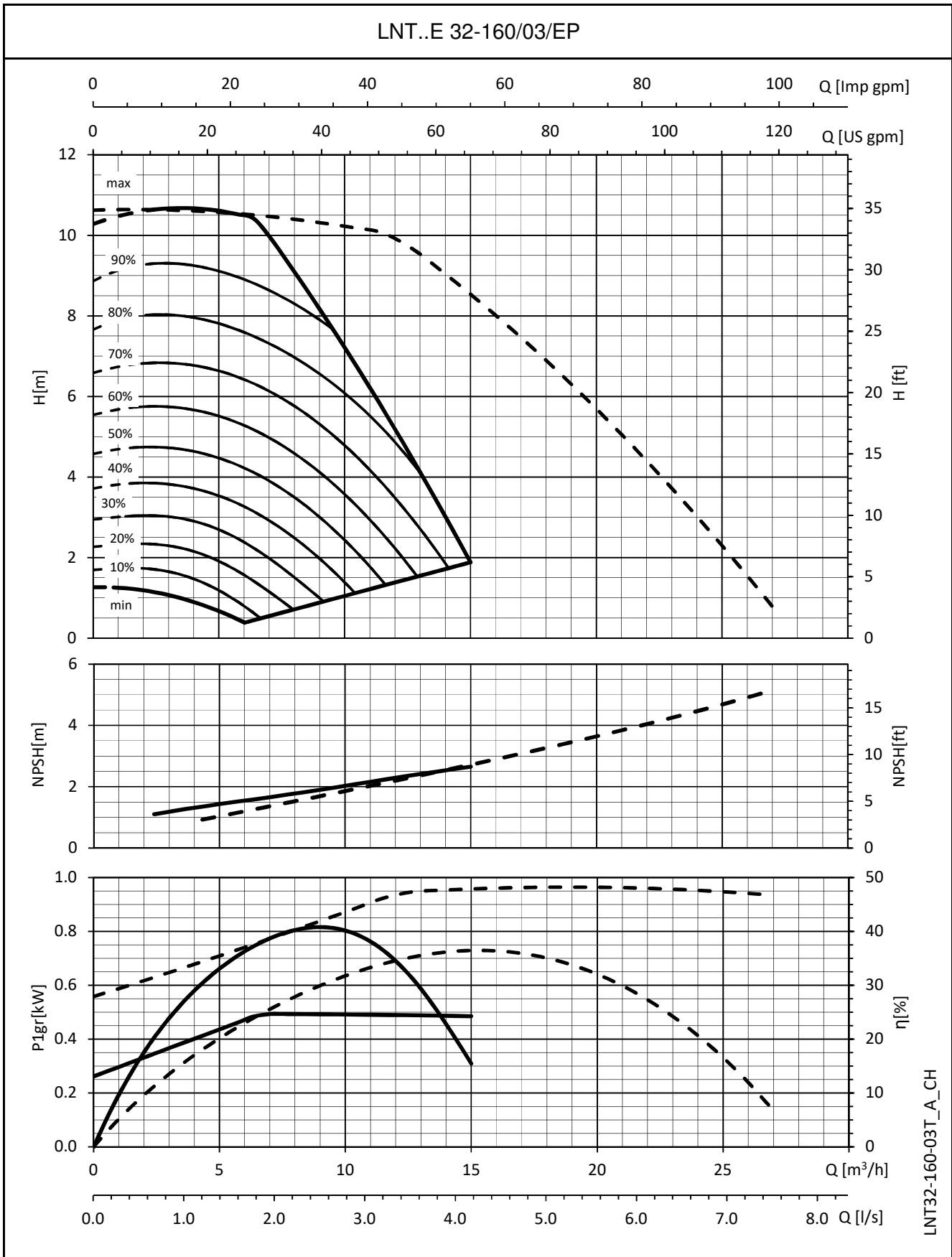
⑩ **η<sub>gr</sub>** is the efficiency of the pump+motor+drive system, working at maximum speed.

⑪ **Working point:** it's important to make sure the pump is working at the best working point, the one at highest efficiency.

It's easy to find it: it's the highest point of the hp pump efficiency curve; once you found it, you can learn also flow values from x-axis called Q and head values from y-axis called H which allow the system to work at the best working point.

⑫ The dotted lines are the **performance of the unit operating in parallel** at maximum speed.

**e-LNT..E SERIES  
OPERATING CHARACTERISTICS**

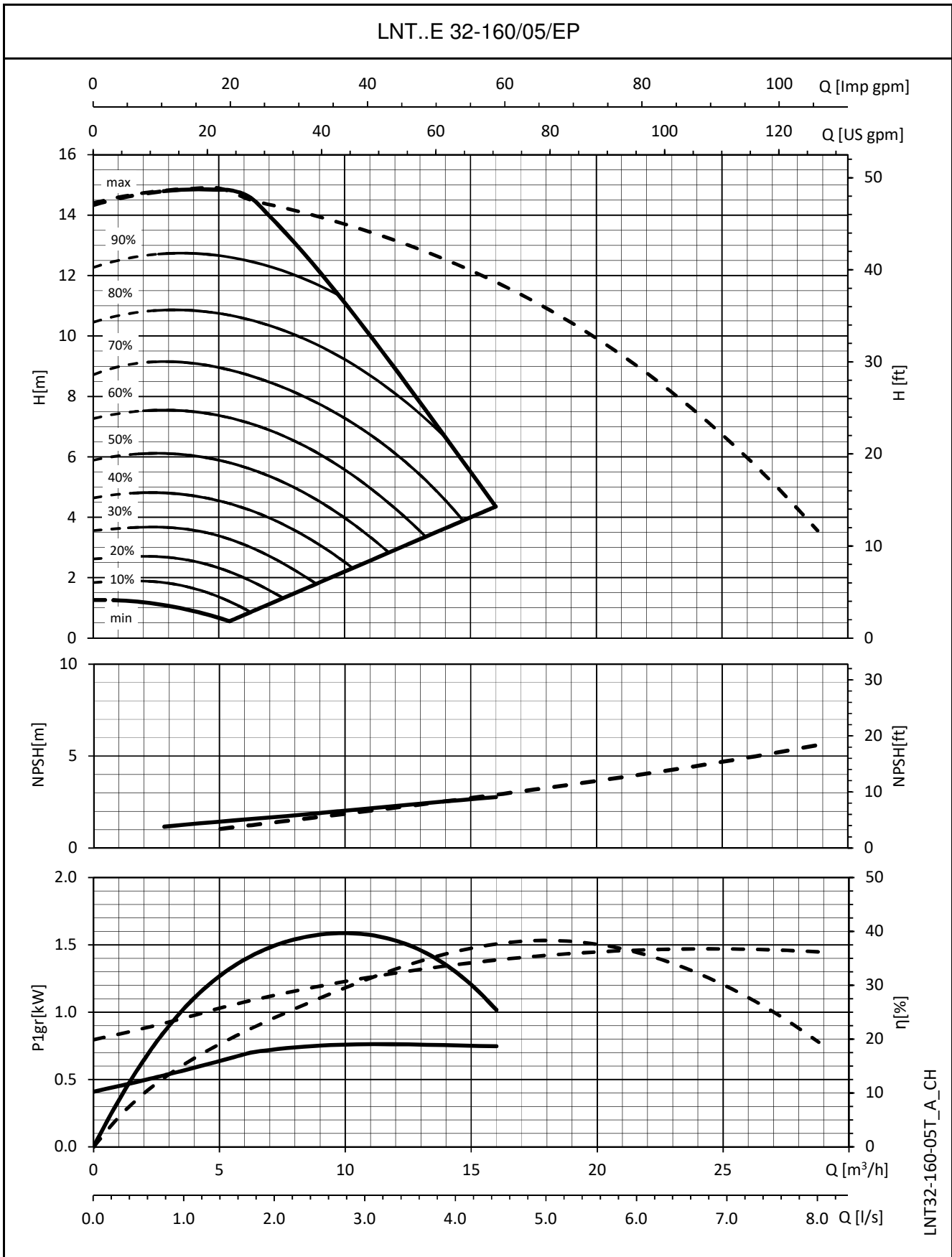


LNT32-160-03T\_A\_CH

**Dotted line:** parallel operation  
 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  $\nu = 1 \text{ mm}^2/\text{sec}$ .



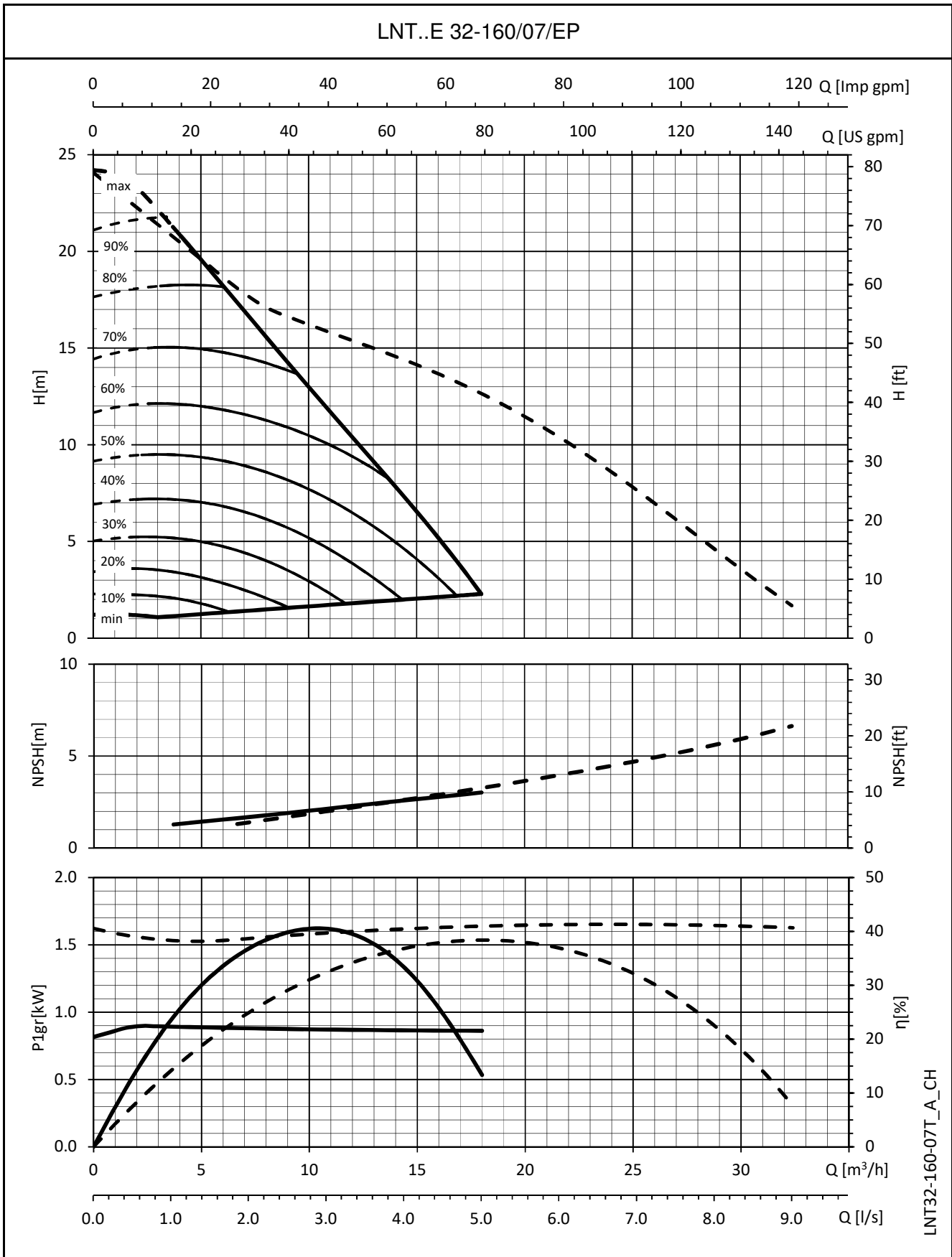
### e-LNT..E SERIES OPERATING CHARACTERISTICS



LNT32-160-05T\_A\_CH

**Dotted line:** parallel operation  
 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  $\nu = 1 \text{ mm}^2/\text{sec}$ .

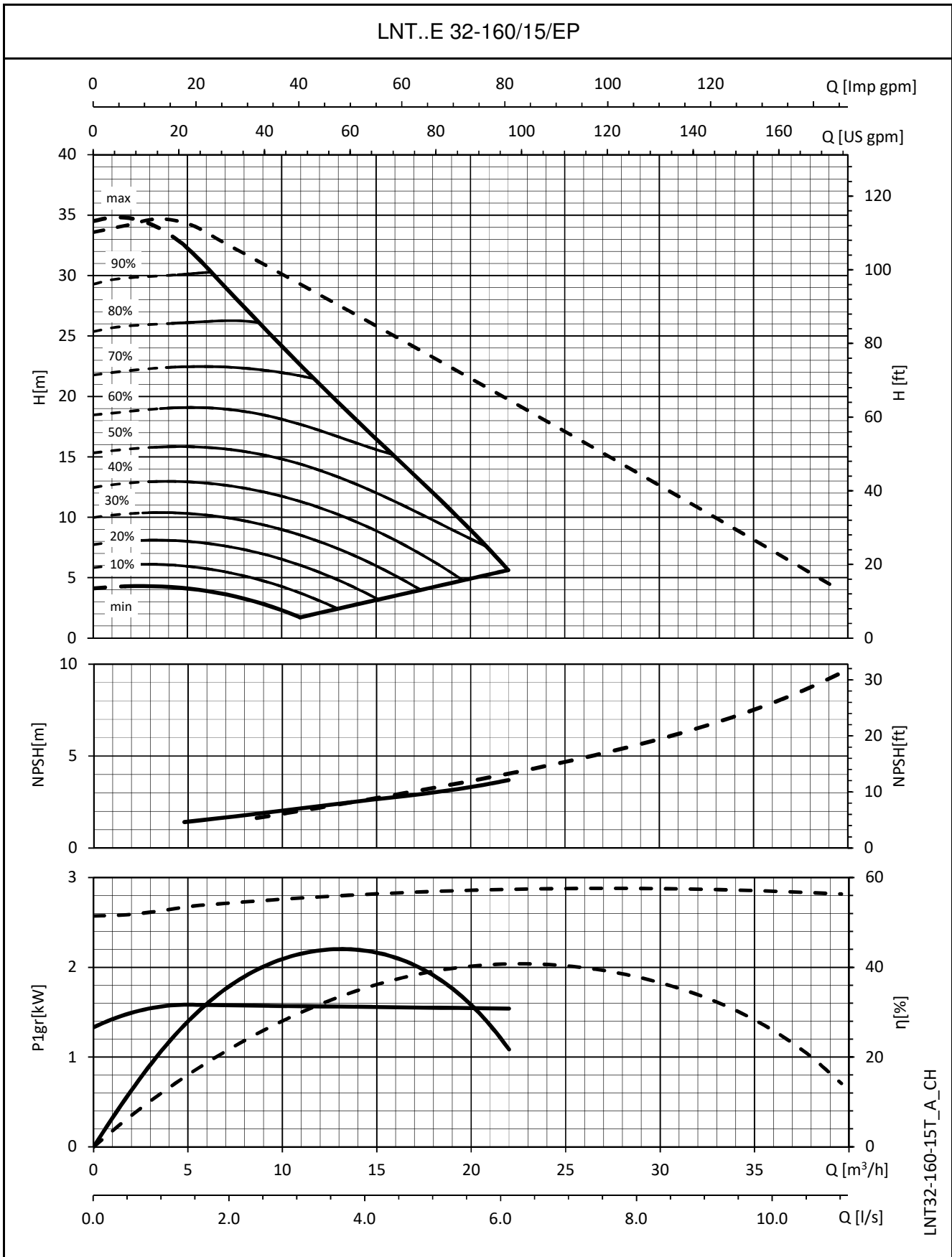
### e-LNT..E SERIES OPERATING CHARACTERISTICS



LNT32-160-07T\_A\_CH

**Dotted line:** parallel operation  
 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  $\nu = 1 \text{ mm}^2/\text{sec}$ .

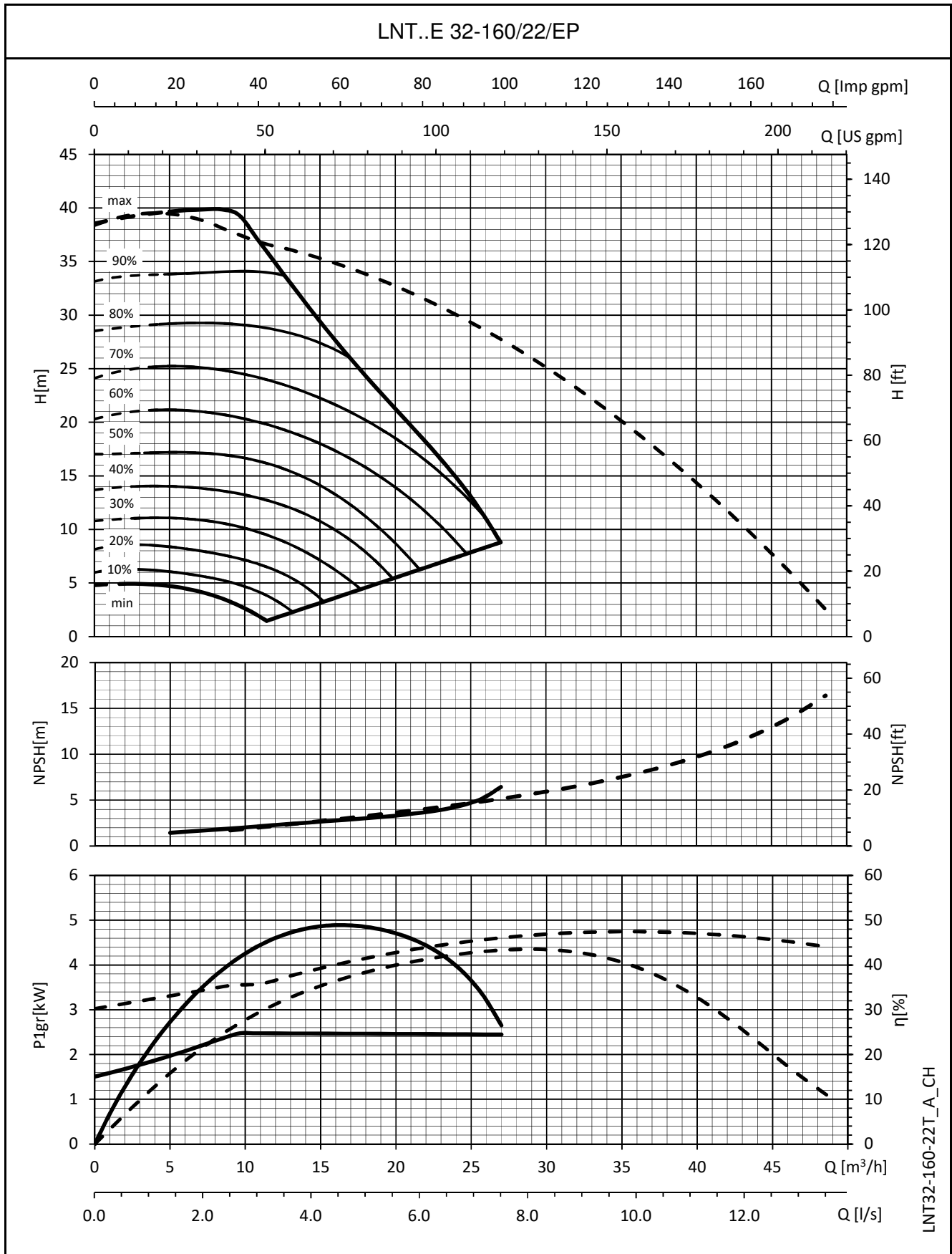
### e-LNT..E SERIES OPERATING CHARACTERISTICS



LNT32-160-15T\_A\_CH

**Dotted line:** parallel operation  
 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  $\nu = 1 \text{ mm}^2/\text{sec}$ .

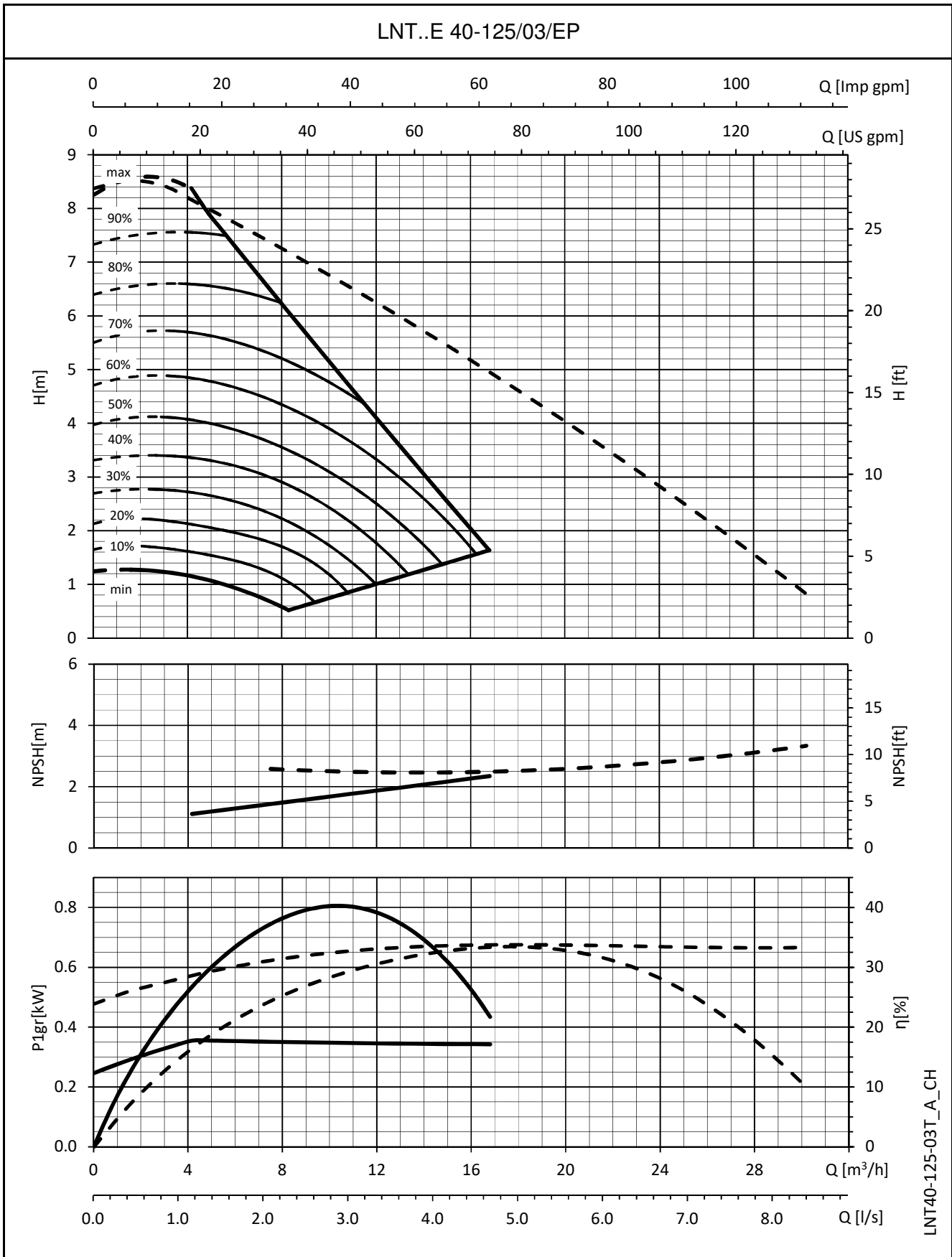
**e-LNT..E SERIES  
OPERATING CHARACTERISTICS**



LNT32-160-22T\_A\_CH

**Dotted line:** parallel operation  
 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  $\nu = 1 \text{ mm}^2/\text{sec}$ .

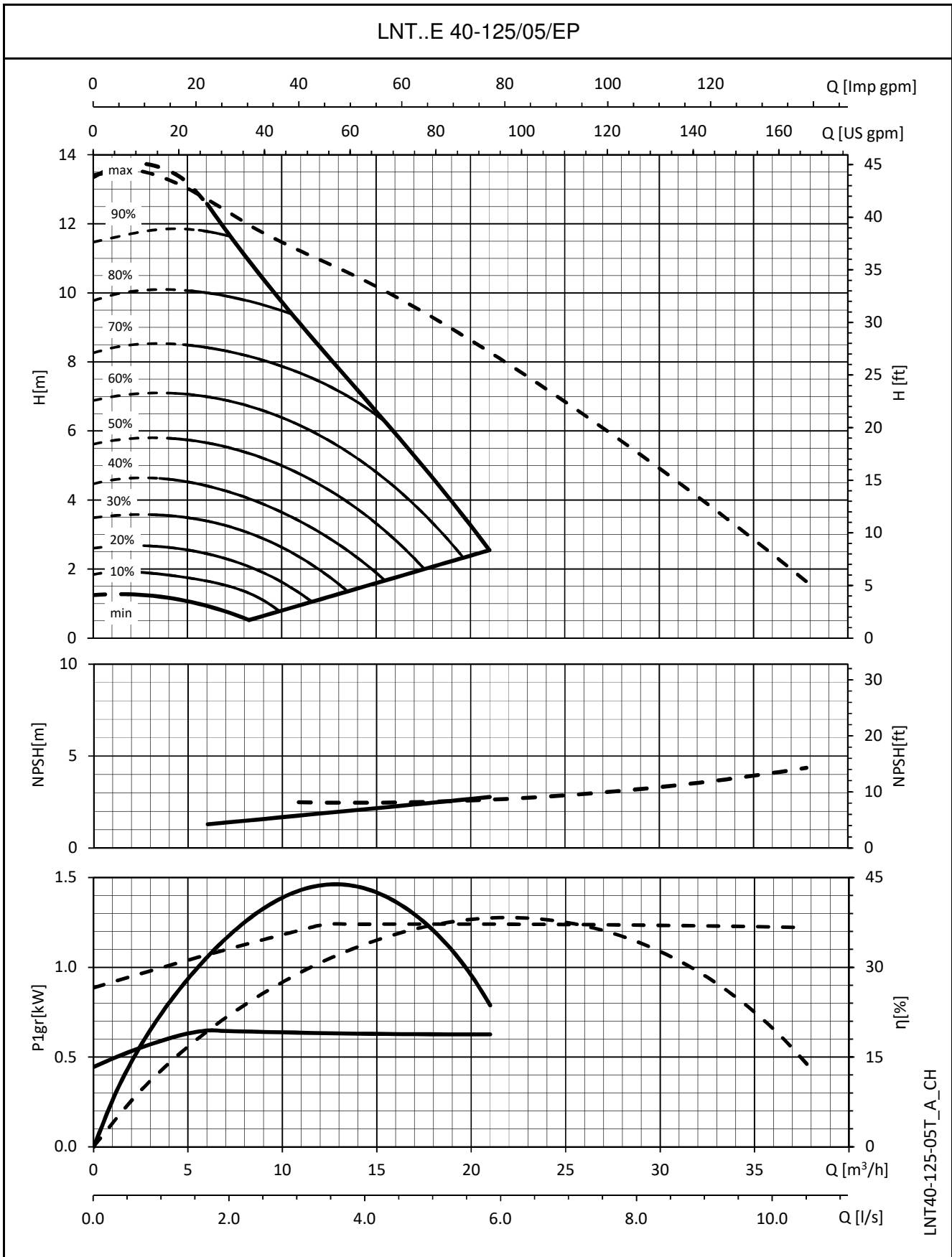
### e-LNT..E SERIES OPERATING CHARACTERISTICS



LNT40-125-03T\_A\_CH

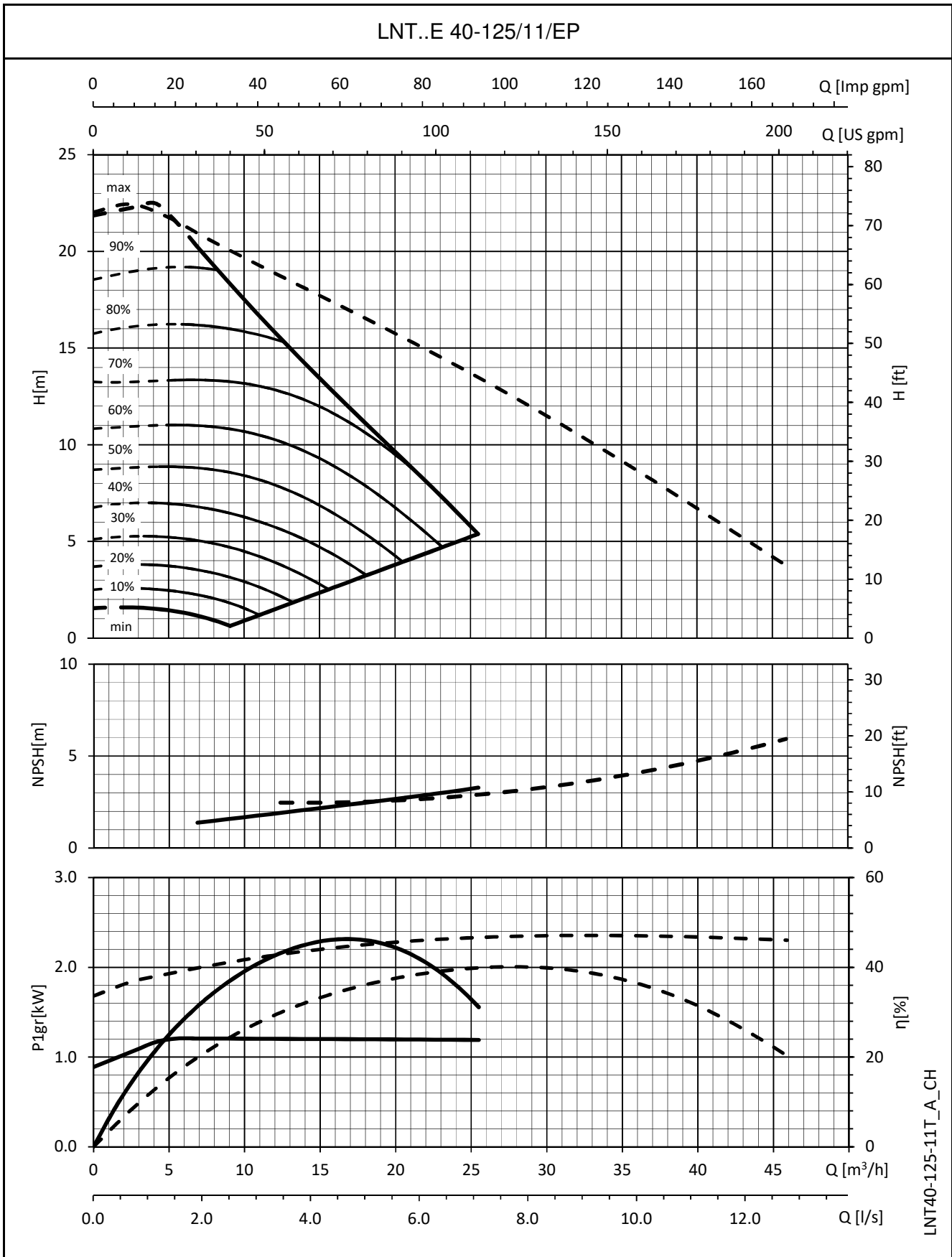
**Dotted line:** parallel operation  
 The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.  
 These performances are valid for liquids with density  $\rho = 1,0 \text{ Kg/dm}^3$  and kinematic viscosity  $\nu = 1 \text{ mm}^2/\text{sec}$ .

### e-LNT..E SERIES OPERATING CHARACTERISTICS



**Dotted line:** parallel operation  
 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  $\nu = 1 \text{ mm}^2/\text{sec}$ .

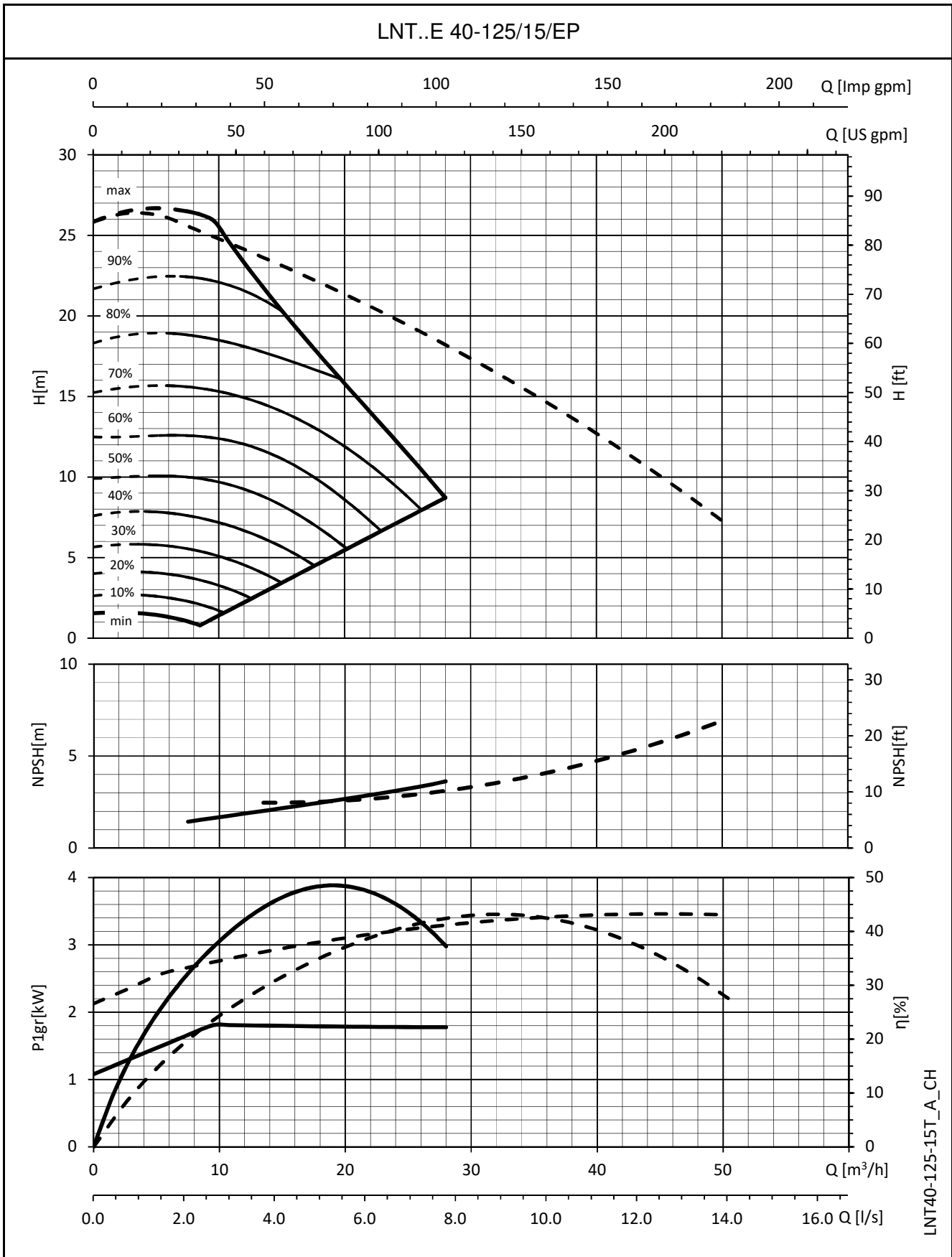
### e-LNT..E SERIES OPERATING CHARACTERISTICS



LNT40-125-11T\_A\_CH

**Dotted line:** parallel operation  
 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..E SERIES  
OPERATING CHARACTERISTICS**

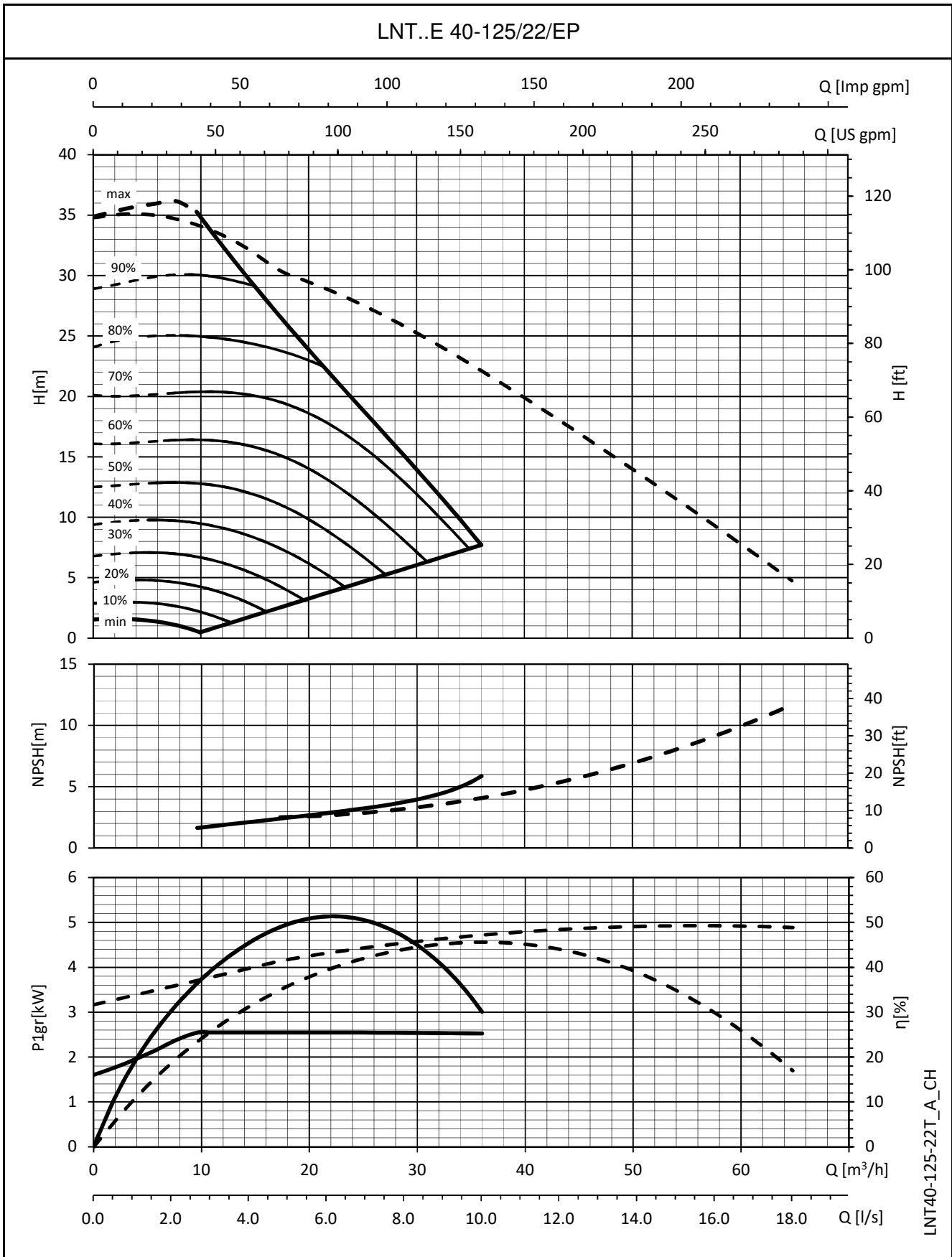


LNT40-125-15T\_A\_CH

**Dotted line:** parallel operation  
 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  $\nu = 1 \text{ mm}^2/\text{sec}$ .



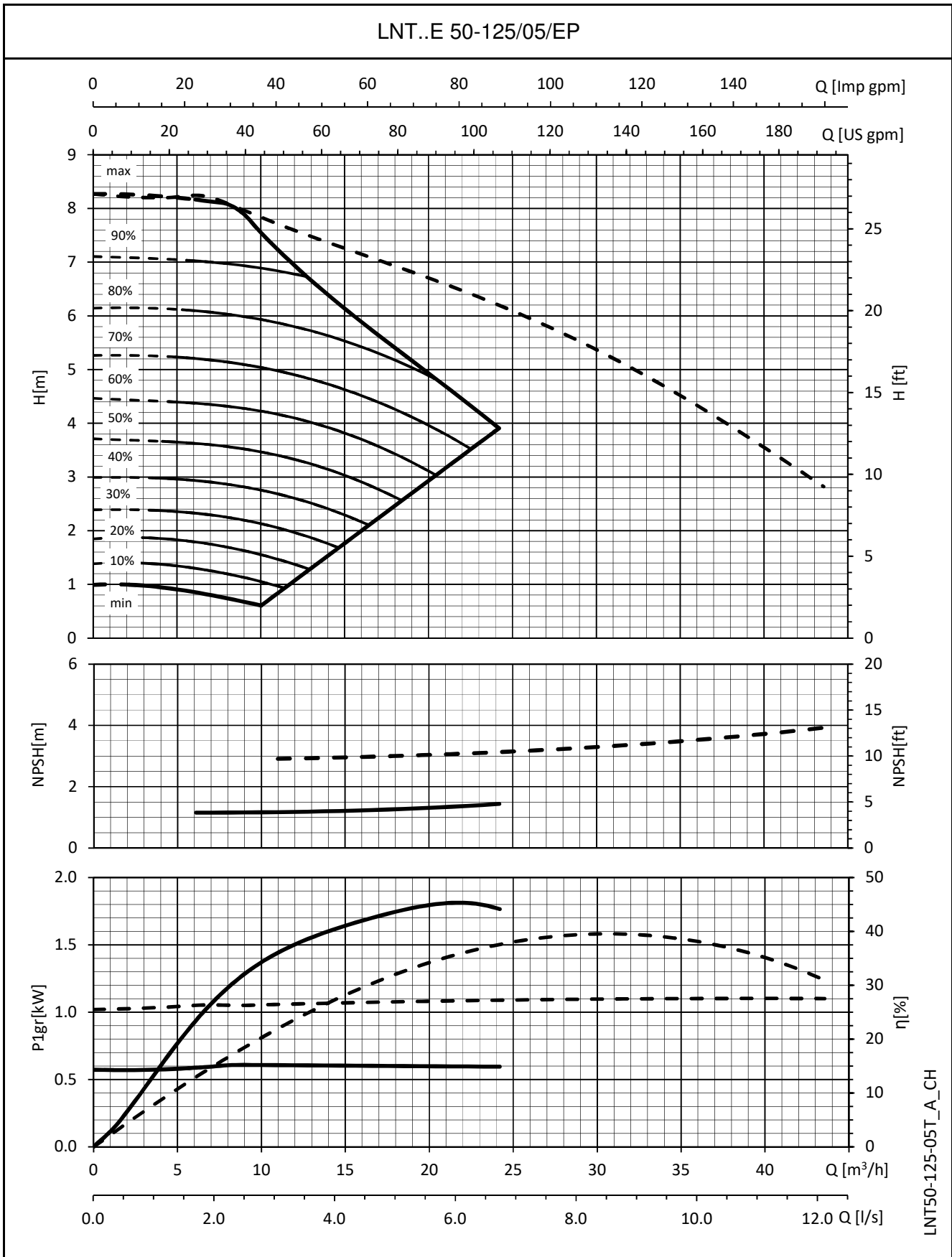
**e-LNT..E SERIES  
OPERATING CHARACTERISTICS**



LNT40-125-22T\_A\_CH

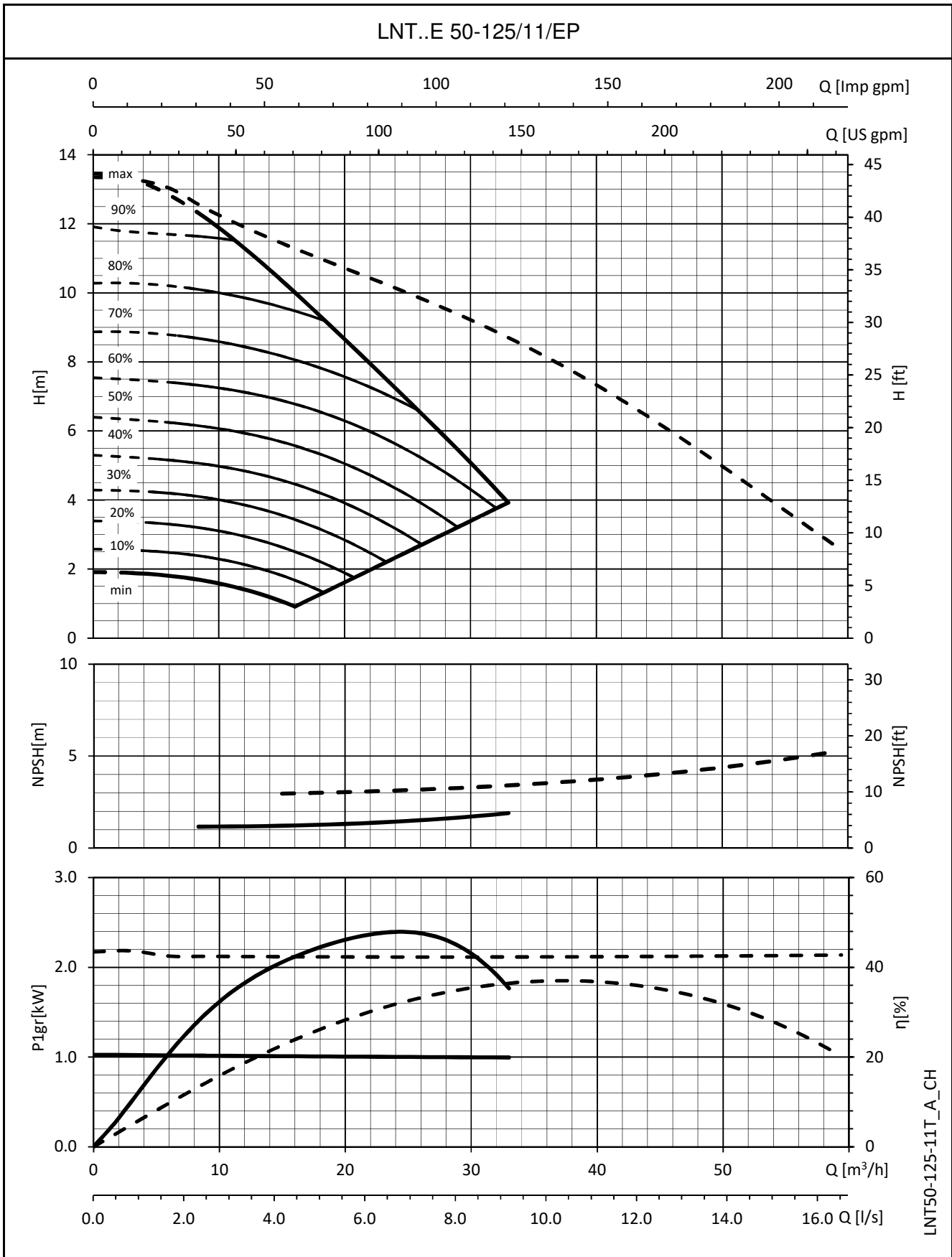
**Dotted line:** parallel operation  
 The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.  
 These performances are valid for liquids with density  $\rho = 1,0 \text{ Kg/dm}^3$  and kinematic viscosity  $\nu = 1 \text{ mm}^2/\text{sec}$ .

### e-LNT..E SERIES OPERATING CHARACTERISTICS



**Dotted line:** parallel operation  
 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  $\nu = 1 \text{ mm}^2/\text{sec}$ .

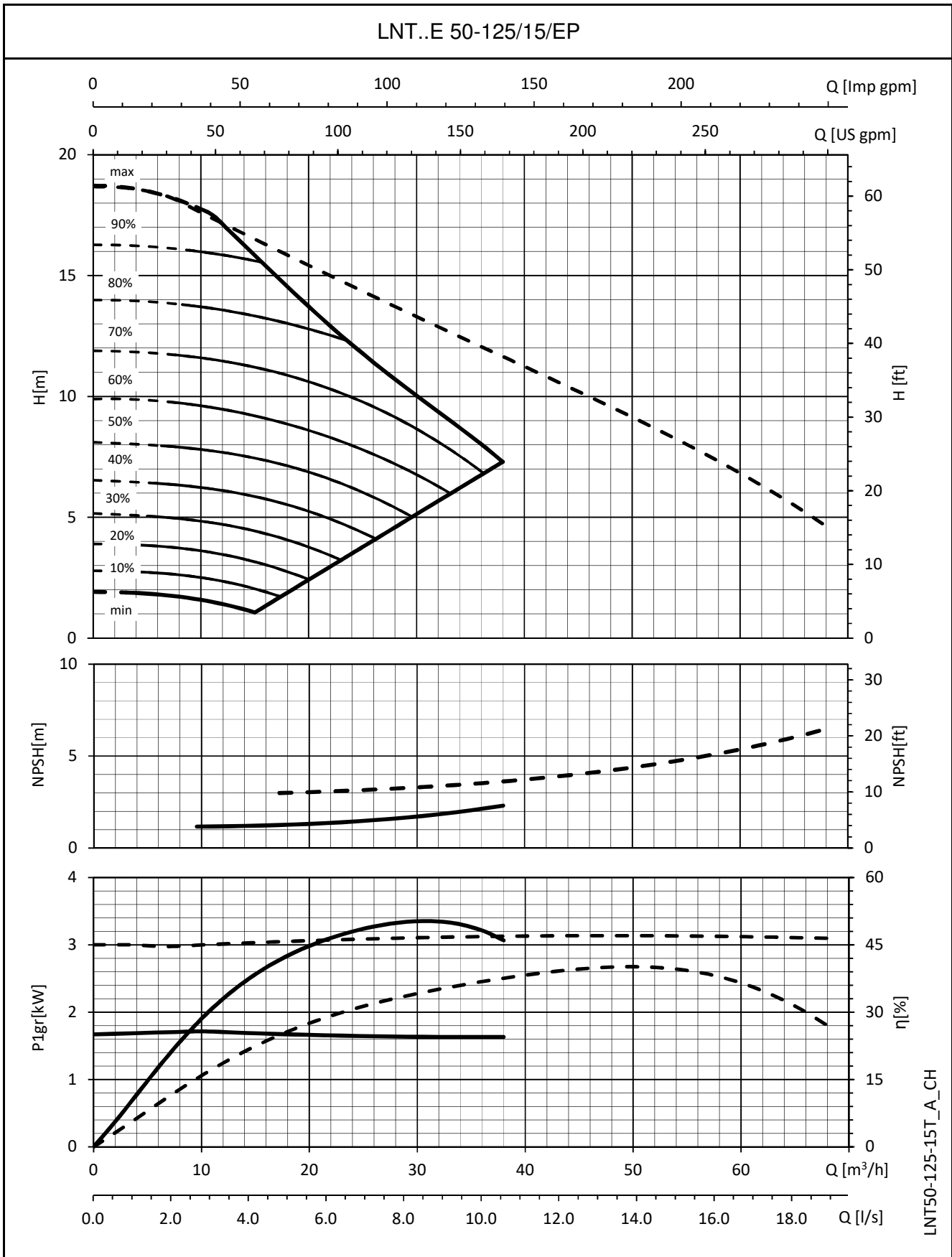
### e-LNT..E SERIES OPERATING CHARACTERISTICS



LNT50-125-11T\_A\_CH

**Dotted line:** parallel operation  
 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  $\nu = 1 \text{ mm}^2/\text{sec}$ .

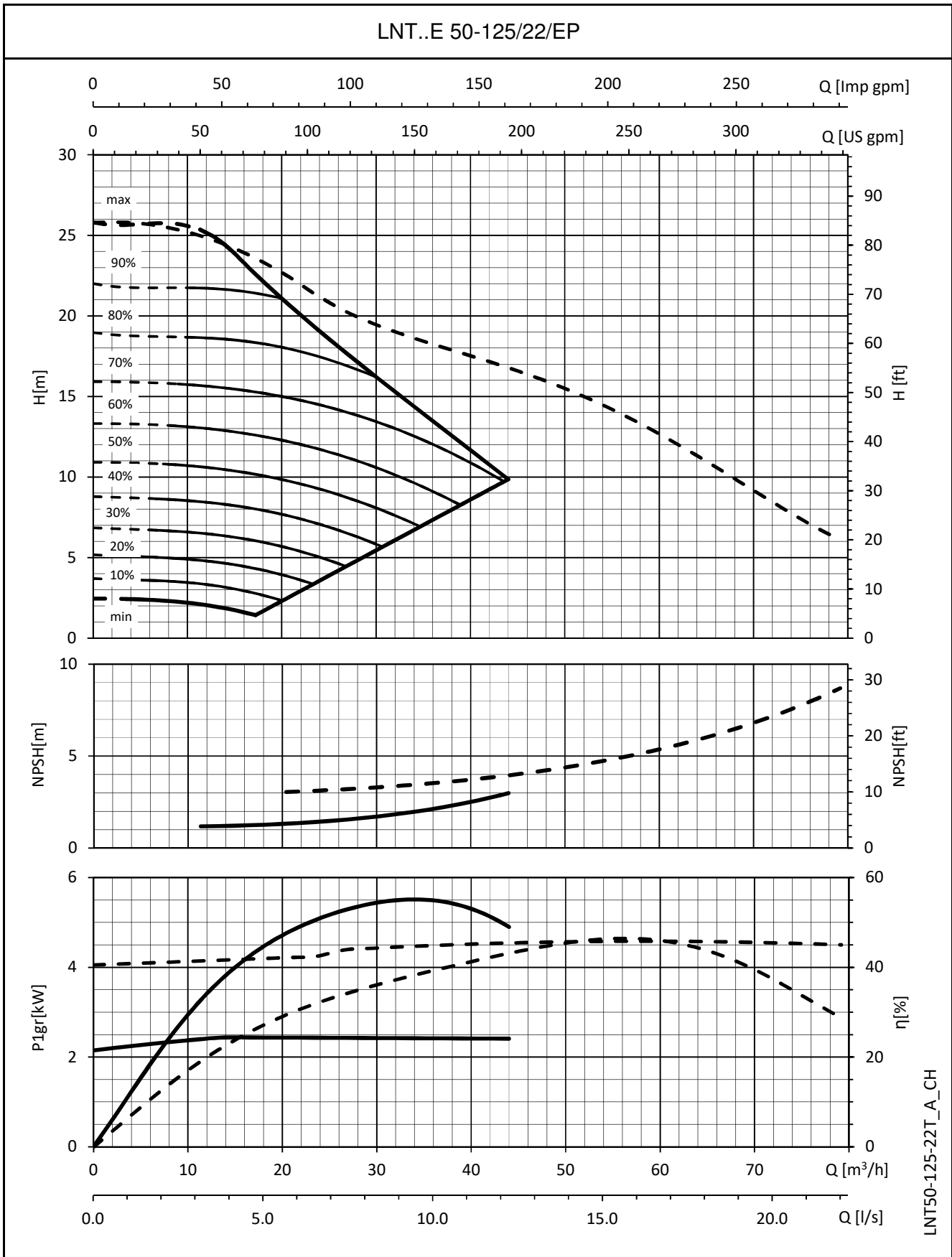
**e-LNT..E SERIES  
OPERATING CHARACTERISTICS**



LNT50-125-15T\_A\_CH

**Dotted line:** parallel operation  
 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  $\nu = 1 \text{ mm}^2/\text{sec}$ .

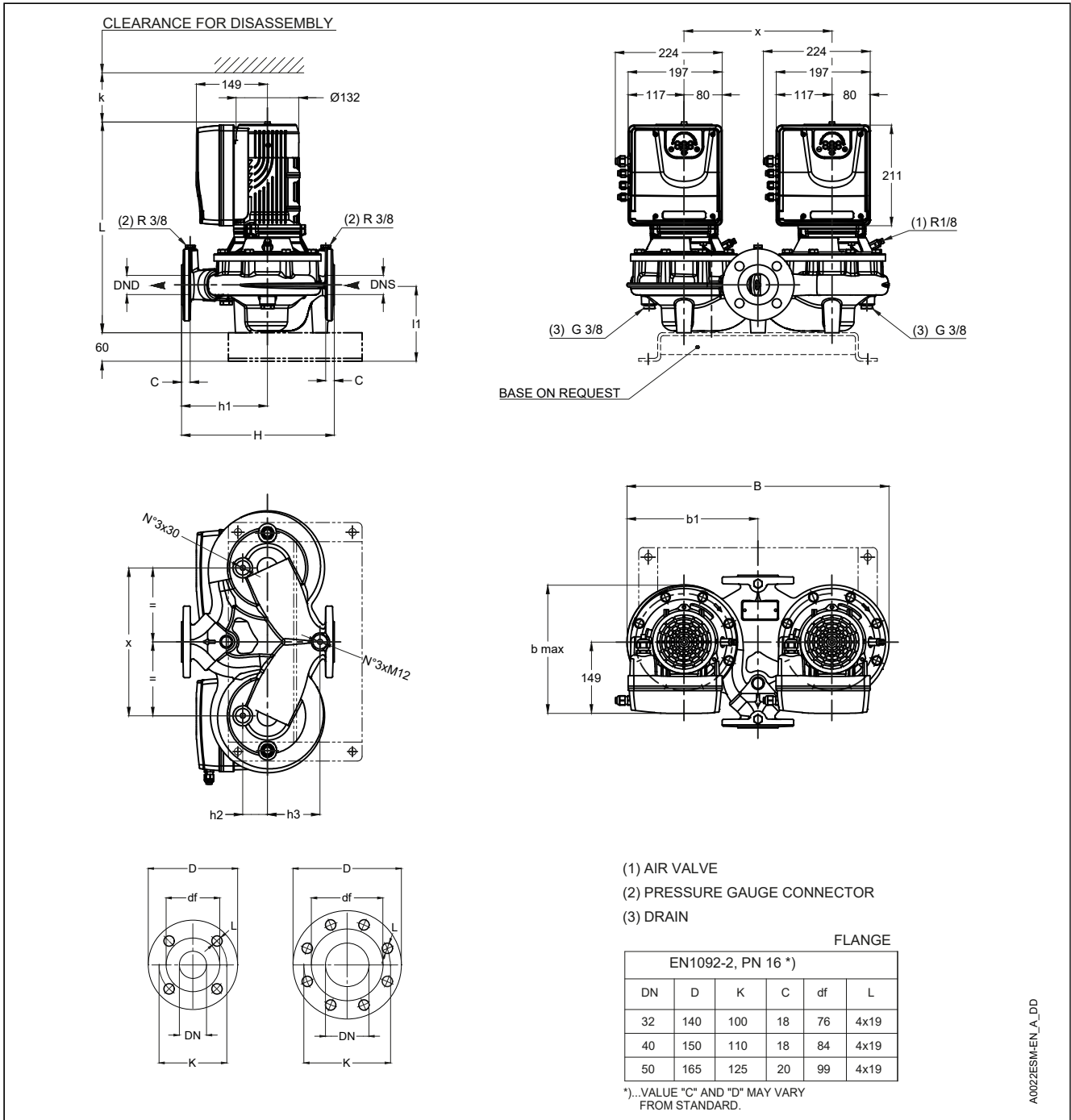
**e-LNT..E SERIES  
OPERATING CHARACTERISTICS**



LNT50-125-22T\_A\_CH

**Dotted line:** parallel operation  
 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-LNTEE SERIES - SINGLE-PHASE VERSION DIMENSIONS AND WEIGHTS



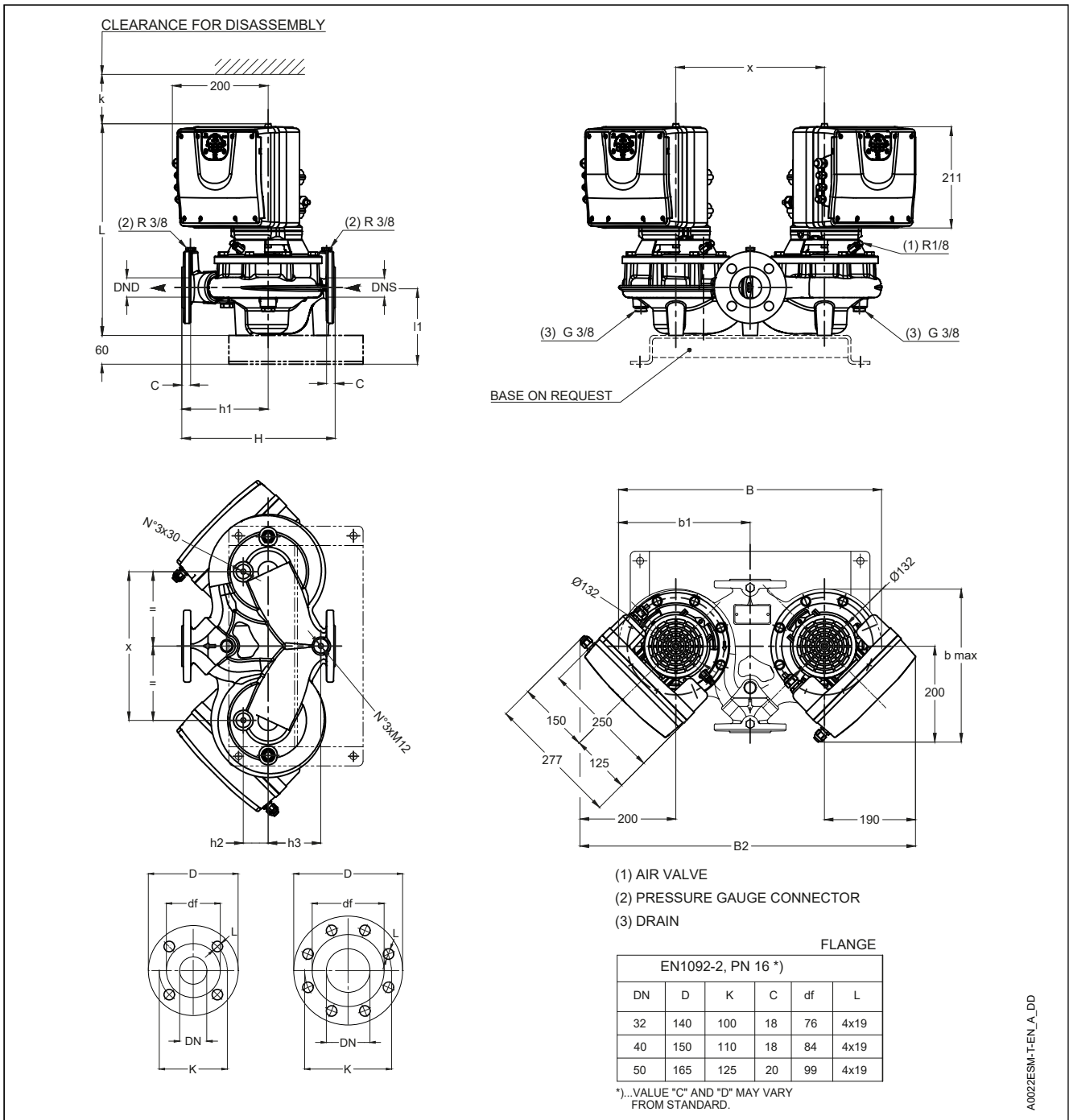
PUMP TYPE	VERSION	MOTOR		DIMENSIONS (mm)										WEIGHT kg			
		kW	Size	DND	DNS	b1	h1	h2	h3	l1	x	b max	B		H	L	k
LNTEE (e-SM)	SINGLE-PHASE	0,37	90	32	32	257	180	40	110	90	275	270	514	320	431,4	260	46
		0,55	90	32	32	257	180	40	110	90	275	270	514	320	431,4	260	46
		0,75	90	32	32	257	180	40	110	90	275	270	514	320	431,4	260	46
		1,5	90	32	32	257	180	40	110	90	275	270	514	320	431,4	260	48
		0,37	90	40	40	274,5	180	52	110	100	310	269	549	320	441,4	260	49
		0,55	90	40	40	274,5	180	52	110	100	310	269	549	320	441,4	260	49
		1,1	90	40	40	274,5	180	52	110	100	310	269	549	320	441,4	260	52
		1,5	90	40	40	274,5	180	52	110	100	310	269	549	320	441,4	260	52
		0,55	90	50	50	275	190	57	120	116	310	267	555	340	457,4	260	49
		1,1	90	50	50	275	190	57	120	116	310	267	555	340	457,4	260	62
		1,5	90	50	50	275	190	57	120	116	310	267	555	340	457,4	260	62

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

LNTEE-32-50esm-en\_a\_td

# e-LNTEE SERIES - THREE-PHASE VERSION

## DIMENSIONS AND WEIGHTS

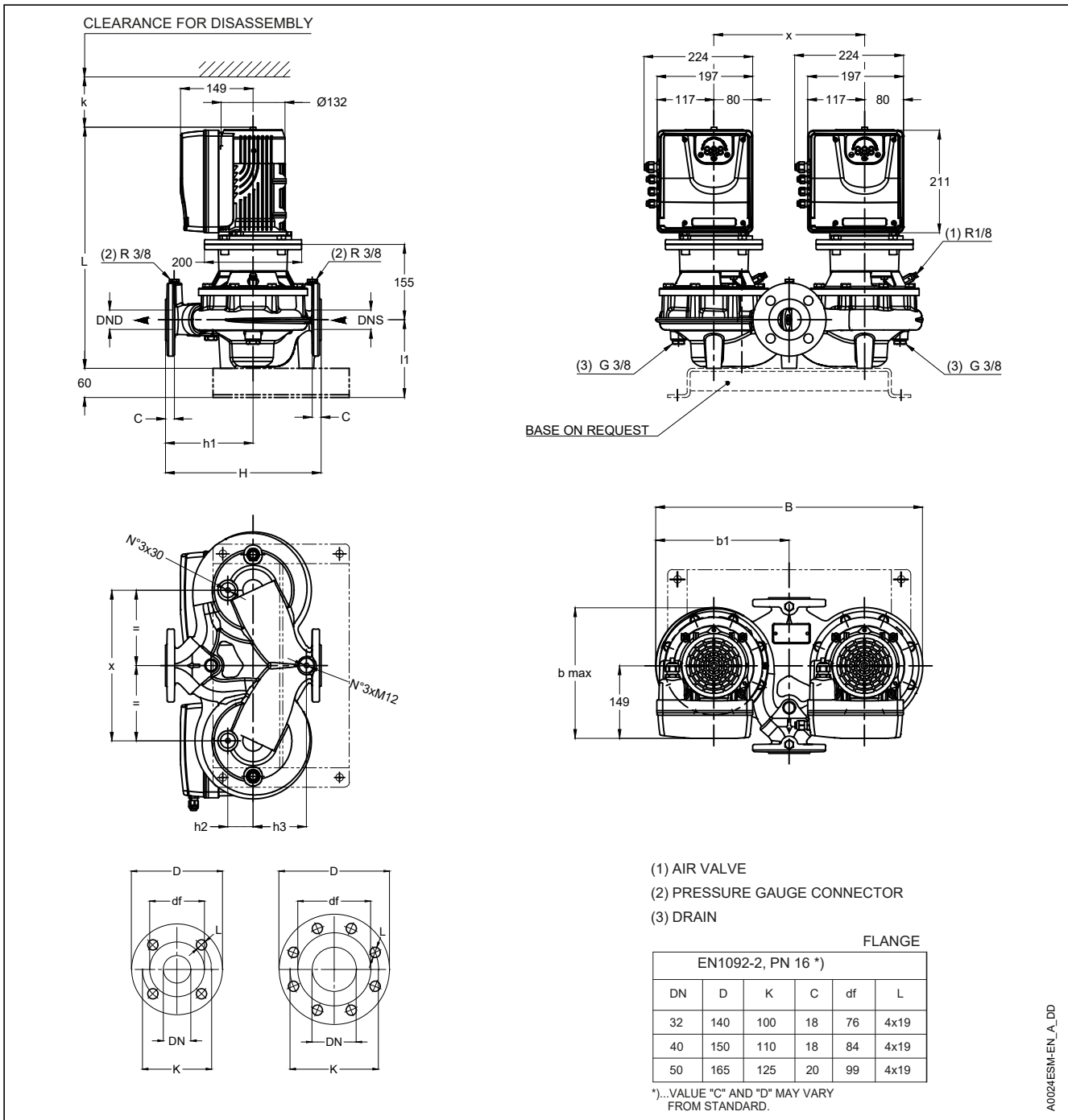


PUMP TYPE	VERSION	MOTOR		DIMENSIONS (mm)										WEIGHT				
		kW	Size	DND	DNS	b1	h1	h2	h3	l1	x	b max	B		B2	H	L	k
32-160/03/EP04-05	THREE-PHASE	0,37	90	32	32	257	180	40	110	90	275	319	514	665	320	431,4	260	57
32-160/05/EP04-05		0,55	90	32	32	257	180	40	110	90	275	319	514	665	320	431,4	260	57
32-160/07/EP04-05		0,75	90	32	32	257	180	40	110	90	275	319	514	665	320	431,4	260	57
32-160/15/EP04-05		1,5	90	32	32	257	180	40	110	90	275	319	514	665	320	431,4	260	60
32-160/22/EP04		2,2	90	32	32	257	180	40	110	90	275	319	514	665	320	431,4	260	61
40-125/03/EP04-05		0,37	90	40	40	274,5	180	52	110	100	310	319	549	700	320	441,4	260	61
40-125/05/EP04-05		0,55	90	40	40	274,5	180	52	110	100	310	319	549	700	320	441,4	260	61
40-125/11/EP04-05		1,1	90	40	40	274,5	180	52	110	100	310	319	549	700	320	441,4	260	63
40-125/15/EP04-05		1,5	90	40	40	274,5	180	52	110	100	310	319	549	700	320	441,4	260	63
40-125/22/EP04		2,2	90	40	40	274,5	180	52	110	100	310	319	549	700	320	441,4	260	66
50-125/05/EP04-05		0,55	90	50	50	275	190	57	120	116	310	322	555	700	340	457,4	260	70
50-125/11/EP04-05		1,1	90	50	50	275	190	57	120	116	310	322	555	700	340	457,4	260	73
50-125/15/EP04-05		1,5	90	50	50	275	190	57	120	116	310	322	555	700	340	457,4	260	73
50-125/22/EP04		2,2	90	50	50	275	190	57	120	116	310	322	555	700	340	457,4	260	75

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

LNTEE-32-50esmT-en\_a\_td

# e-LNTSE SERIES - SINGLE-PHASE VERSION DIMENSIONS AND WEIGHTS



PUMP TYPE LNTSE (e-SM)	VERSION	MOTOR		DIMENSIONS (mm)							b max	B	H	L	x	WEIGHT kg		
		kW	Size	DND	DNS	b1	h1	h2	h3	l1							x	
SINGLE-PHASE	32-160/03/EP02	0,37	90	32	32	257,0	180	40	110	90	275	270	514	320	486,4	260	52	
		0,55	90	32	32	257,0	180	40	110	90	275	270	514	320	486,4	260	52	
		0,75	90	32	32	257,0	180	40	110	90	275	270	514	320	486,4	260	52	
	32-160/07/EP02	1,5	90	32	32	257,0	180	40	110	90	275	270	514	320	486,4	260	56	
		32-160/15/EP02	0,37	90	40	40	274,5	180	52	110	100	310	269	549	320	496,4	260	56
			0,55	90	40	40	274,5	180	52	110	100	310	269	549	320	496,4	260	56
	1,1		90	40	40	274,5	180	52	110	100	310	269	549	320	496,4	260	59	
	40-125/03/EP02	1,5	90	40	40	274,5	180	52	110	100	310	269	549	320	496,4	260	59	
		40-125/05/EP02	0,55	90	50	50	275,0	190	57	120	116	310	267	555	340	512,4	260	66
1,1			90	50	50	275,0	190	57	120	116	310	267	555	340	512,4	260	69	
1,5	90		50	50	275,0	190	57	120	116	310	267	555	340	512,4	260	69		

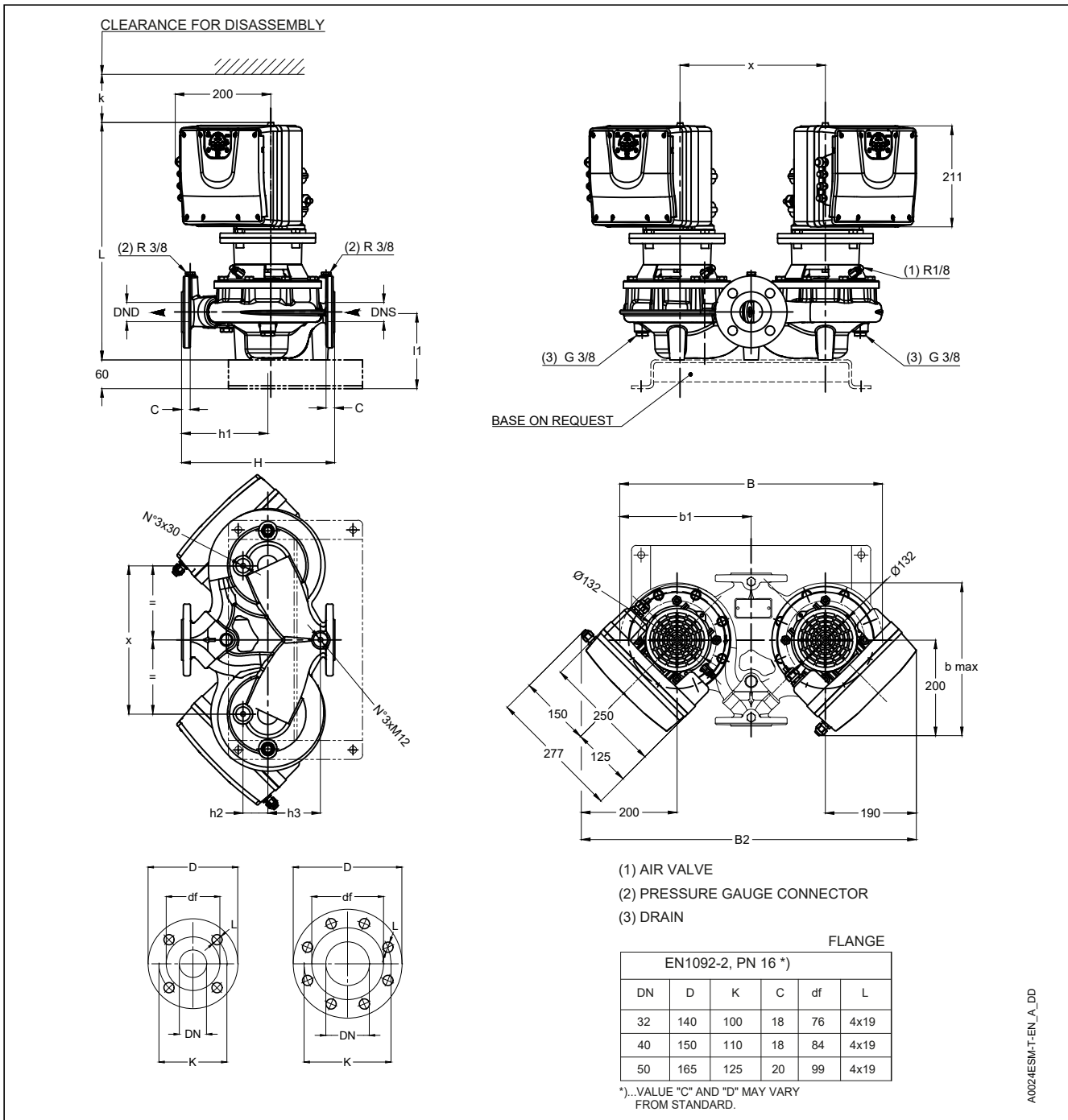
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

LNTSE-32-50esm-en\_a\_td



# e-LNTSE SERIES - THREE-PHASE VERSION

## DIMENSIONS AND WEIGHTS



PUMP TYPE	VERSION	MOTOR		DIMENSIONS (mm)							b	B	B2	H	L	x	WEIGHT	
		kW	Size	DND	DNS	b1	h1	h2	h3	l1								x
LNTSE (e-SM)		0,37	90	32	32	257	180	40	110	90	275	319	514	665	320	486,4	260	63
		0,55	90	32	32	257	180	40	110	90	275	319	514	665	320	486,4	260	63
		0,75	90	32	32	257	180	40	110	90	275	319	514	665	320	486,4	260	63
		1,5	90	32	32	257	180	40	110	90	275	319	514	665	320	486,4	260	67
		2,2	90	32	32	257	180	40	110	90	275	319	514	665	320	486,4	260	70
	THREE-PHASE	0,37	90	40	40	274,5	180	52	110	100	310	319	549	700	320	496,4	260	68
		0,55	90	40	40	274,5	180	52	110	100	310	319	549	700	320	496,4	260	68
		1,1	90	40	40	274,5	180	52	110	100	310	319	549	700	320	496,4	260	70
		1,5	90	40	40	274,5	180	52	110	100	310	319	549	700	320	496,4	260	70
		2,2	90	40	40	274,5	180	52	110	100	310	319	549	700	320	496,4	260	74
		0,55	90	50	50	275	190	57	120	116	310	322	555	700	340	512,4	260	77
		1,1	90	50	50	275	190	57	120	116	310	322	555	700	340	512,4	260	80
		1,5	90	50	50	275	190	57	120	116	310	322	555	700	340	512,4	260	80
		2,2	90	50	50	275	190	57	120	116	310	322	555	700	340	512,4	260	83

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

LNTSE-32-50esm-en\_a\_td



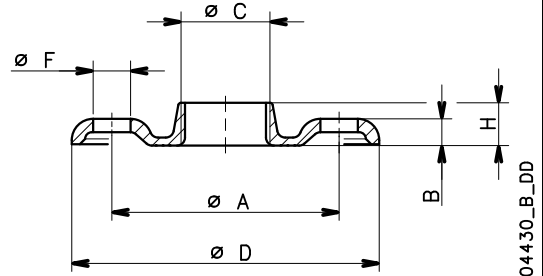
# ACCESSORIES

### LNT SERIES

### ROUND THREADED COUNTERFLANGES KIT ACCORDING TO EN 1092-1

DN	CODE		DIMENSIONS (mm)					HOLES		PN
	KIT	$\varnothing C$	$\varnothing A$	B	$\varnothing D$	H	$\varnothing F$	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



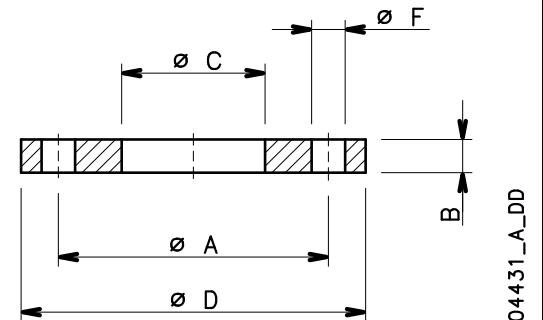
04430\_B\_DD

### LNT SERIES

### ROUND WELD COUNTERFLANGES KIT ACCORDING TO EN 1092-1

DN	CODE		DIMENSIONS (mm)				HOLES		PN
	KIT	$\varnothing C$	$\varnothing A$	B	$\varnothing D$	$\varnothing F$	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



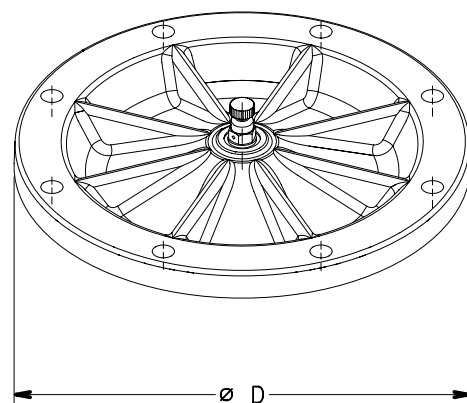
04431\_A\_DD

### LNT (32 ÷ 100) SERIES

### BLIND FLANGE KIT

FLANGE KIT		
PUMP TYPE	CODE	$\varnothing D$
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	109393770	322
LNT100-200 / LNT100-250		

LNT-flangia-cieca-en\_b\_td

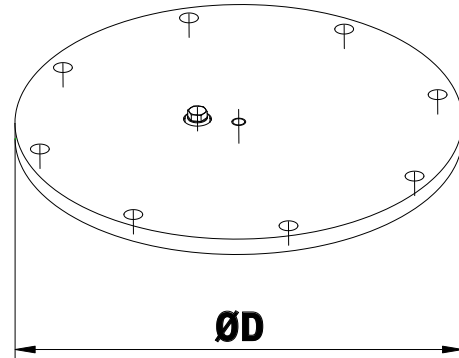


05262\_A\_DD

### LNT 125, 150 SERIES BLIND FLANGE KIT

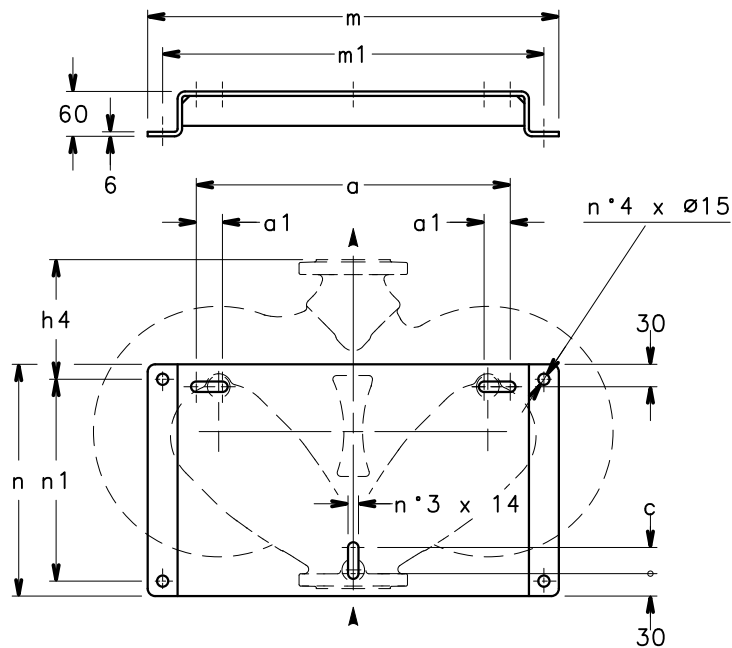
FLANGE KIT		
POMPA TIPO	CODE	Ø D
LNTS 125-160	713740900	322
LNTS 125-200		
LNTS 125-250		
LNTS 150-200		
LNTS 150-250		
LNTS 125-315	713740910	401
LNTS 150-315		

LNTS-BLFL-en\_a\_td



LNTS-BLFL-EN\_A\_DD

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

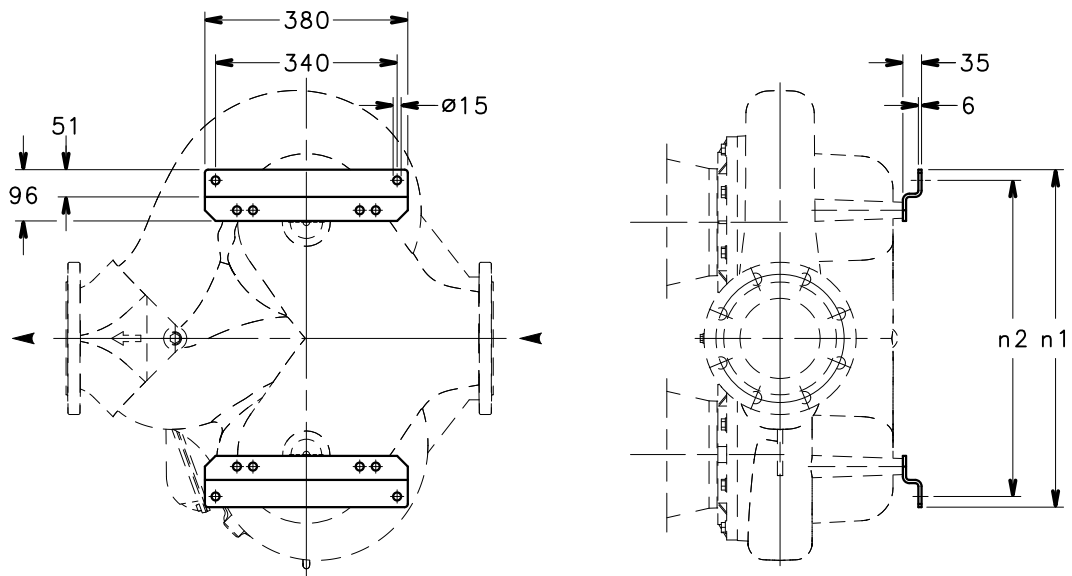


PUMP (LNT) SIZE	CODE KIT	DIMENSIONS (mm)							
		a	a1	c	h4	m	m1	n	n1
32-160	109398610	370	55	72	130	500	460	280	240
40-125 / 40-160		370	55	72	118	500	460	280	240
50-125 / 50-160		370	55	72	123	500	460	280	240
65-125 / 65-160		370	55	72	105	500	460	280	240
80-125 / 80-160		420	10	95	145	550	510	340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

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

- 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 submergible pumps)

- Report indicating vibration measurements (ISO 10816-1)

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

#### a) EN 10204:2004 - type 2.1

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

#### b) EN 10204:2004 - type 2.2

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

### iii) Issue of a further EC Declaration of Conformity,

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

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

### iv) Manufacturer's declaration of conformity

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

### v) Other certificates and/or documentation on request

- subject to availability or feasibility.

### vi) Duplication of certificates and/or documentation on request

- subject to availability or feasibility.



# **TECHNICAL APPENDIX**

## NPSH

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

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

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

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

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

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

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

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 m<sup>3</sup>/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 m<sup>3</sup>/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  $\textcircled{1}$  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  $\rho$  DENSITY OF WATER TABLE**

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

G-at\_npsb\_sc

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

FLOW RATE		NOMINAL DIAMETER in mm and inches																												
m <sup>3</sup> /h	l/min	15	20	25	32	40	50	65	80	100	125	150	175	200	250	300	350	400												
		1/2"	3/4"	1"	1 1/4"	1 1/2"	2	2 1/2"	3"	4"	5"	6"	7"	8"	10"	12"	14"	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																							
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		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																					
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 3,05	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 valve	-	-	-	0,2	0,2	0,2	0,4	0,4	0,6	0,9	1,1	1,3
Foot check 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
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\_b\_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 <sup>3</sup> /h	Cubic feet per hour ft <sup>3</sup> /h	Cubic feet per minute ft <sup>3</sup> /min	Imperial gallon per minute Imp. gal/min	U.S. gallon per minute US gal/min
<b>1,000</b>	0,0600	2,1189	0,0353	0,2200	0,2642
16,6667	<b>1,0000</b>	35,3147	0,5886	3,6662	4,4029
0,4719	0,0283	<b>1,0000</b>	0,0167	0,1038	0,1247
28,3168	1,6990	60,0000	<b>1,0000</b>	6,2288	7,4805
4,5461	0,2728	9,6326	0,1605	<b>1,0000</b>	1,2009
3,7854	0,2271	8,0208	0,1337	0,8327	<b>1,0000</b>

## PRESSURE AND HEAD

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

## LENGTH

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

## VOLUME

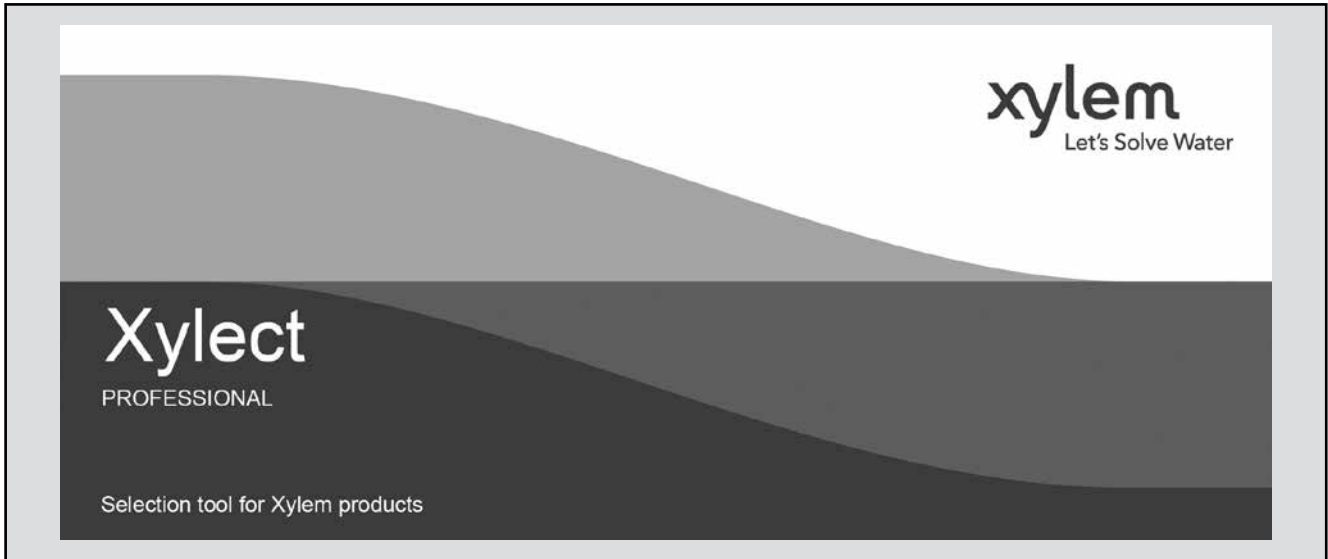
Cubic metre m <sup>3</sup>	Litre L	Millilitre ml	Imperial gallon imp. gal.	U.S. gallon US gal.	Cubic foot ft <sup>3</sup>
<b>1,0000</b>	1 000,0000	1 x 10 <sup>6</sup>	219,9694	264,1720	35,3147
0,0010	<b>1,0000</b>	1 000,0000	0,2200	0,2642	0,0353
1 x 10 <sup>-6</sup>	0,0010	<b>1,0000</b>	2,2 x 10 <sup>-4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

## 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.

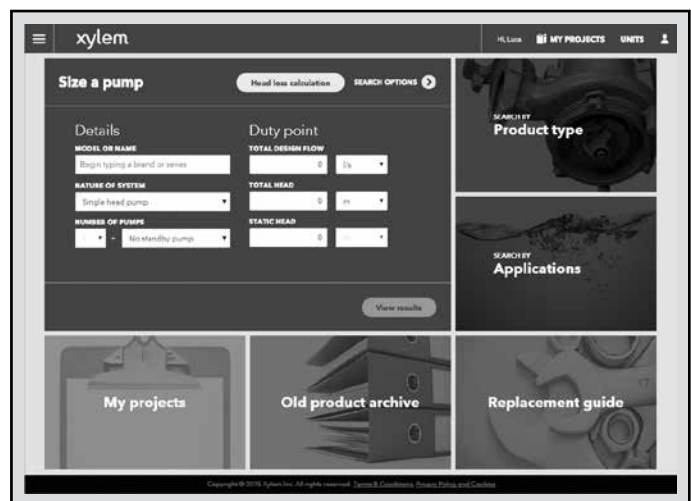
The possibility to search by applications and the detailed information output given makes it easy to make the optimal selection without having detailed knowledge about the Lowara products.

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



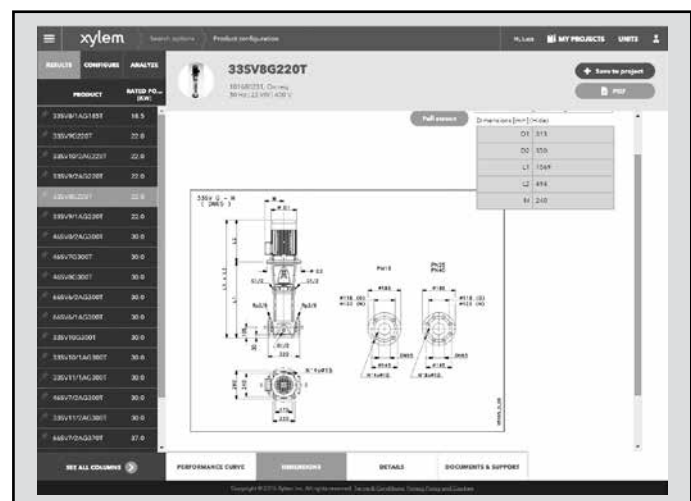
The detailed output makes it easy to select the optimal pump from the given alternatives.

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](http://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](http://www.xylem.com).**



For information and technical support  
Xylem Service Italia Srl

Via Dottor Vittorio Lombardi 14  
36075 - Montecchio Maggiore (VI) - Italy  
Tel. (+39) 0444 707111  
Fax (+39) 0444 491043  
[www.lowara.com](http://www.lowara.com)

Xylem Service Italia Srl reserves the right to make modification without prior notice.  
Lowara, Xylem are trademarks of Xylem Inc. or one of its subsidiaries  
© 2020 Xylem, Inc.