

50 Hz



e-LNT Series

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

ErP 2009/125/EC

Cod. 191027231 Rev. A Ed.04/2015

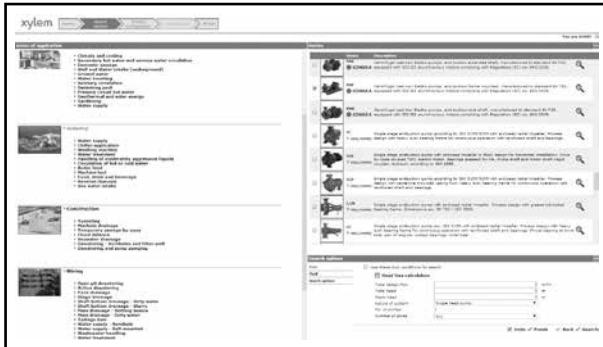
 **LOWARA**
a xylem brand

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For more information, please, see page 129-130.

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 **1st January 2015 for 7,5 to 375 kW** rated powers and from **1st 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 **1st 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).

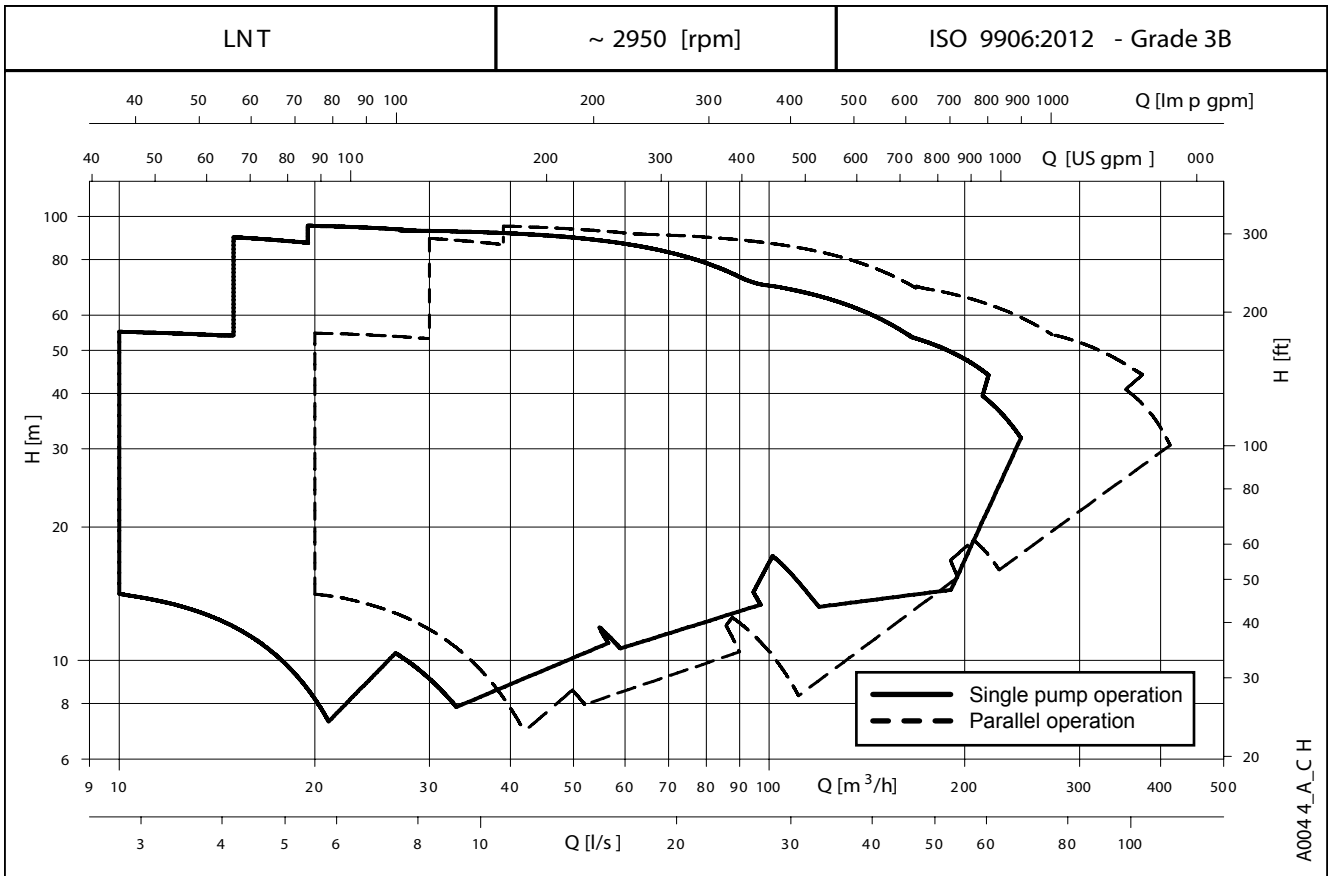
The Lowara e-LNT series, for the models in the scope of the regulations above, is ErP compliant, having an index MEI equal or higher than 0,4 and IE3 motor efficiency.

CONTENTS

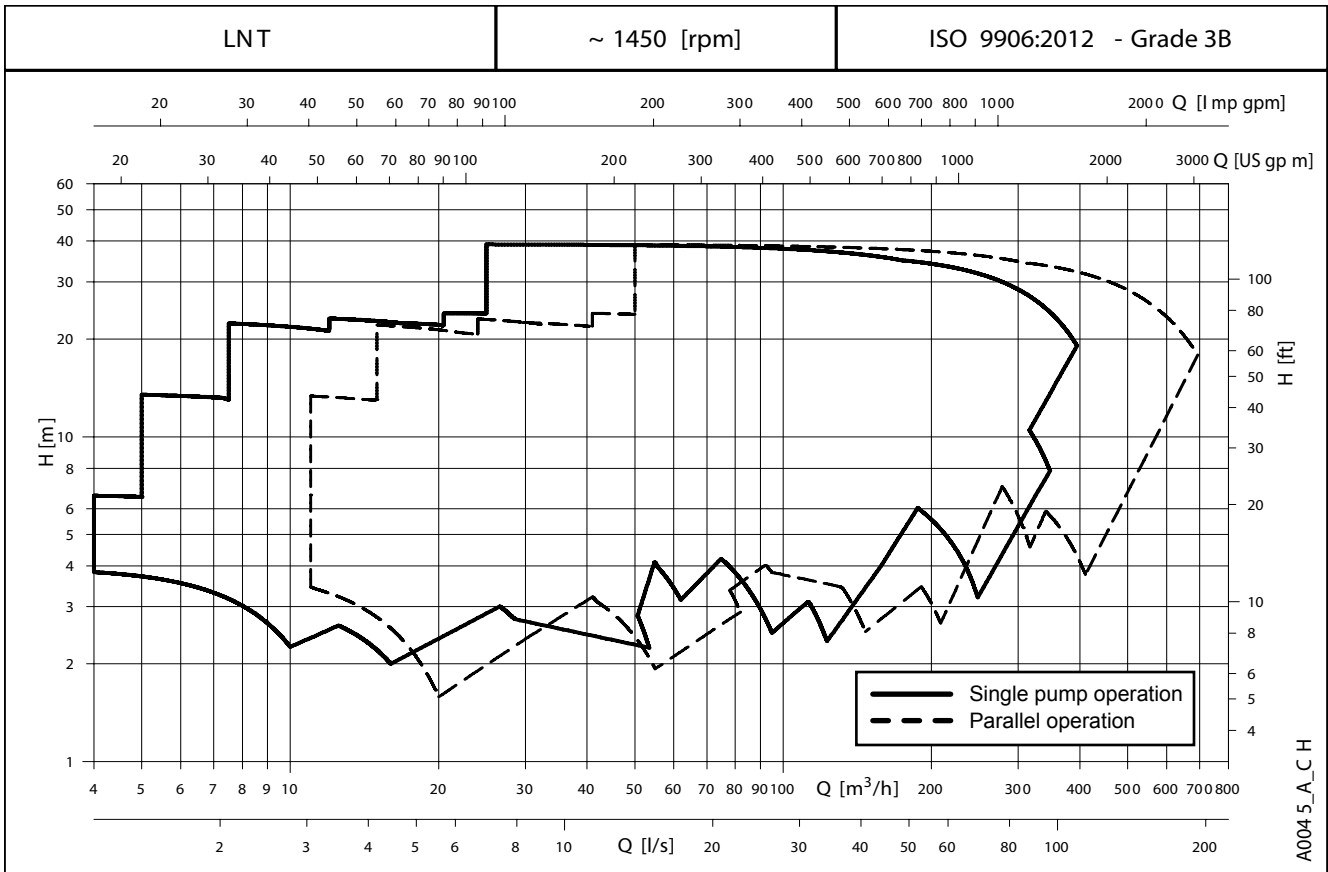
General Introduction	5
Applications	6
Identification code	8
Rating plate	9
List of Models at 50 Hz, 2 poles	10
List of Models at 50 Hz, 4 poles	11
Pump cross-section and main components	12
Mechanical seals	14
Motors (ErP 2009/125/EC).....	15
Pumps (ErP 2009/125/EC).....	21
Minimum efficiency index (MEI)	22
Hydraulic performance range at 50 Hz, 2 poles	23
Table of hydraulic performances at 50 Hz, 2 poles	24
Hydraulic performance range at 50 Hz, 4 poles	29
Table of hydraulic performances at 50 Hz, 4 poles	30
Operating characteristics at 50 Hz, 2 poles	38
Operating characteristics at 50 Hz, 4 poles	56
Dimensions and weights	81
LNT..H (e-LNT with HYDROVAR)	97
Accessories	117
Report and declarations	121
Technical appendix	123

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** m³/h (2-pole range)
 - 395** m³/h (4-pole range)
 - (two pump running):
 - 450** m³/h (2-pole range)
 - 694** m³/h (4-pole range)
- Maximum head: **94** 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 BQ1EGG-WA and EPDM gasket) **-25 to +120 °C**
 - versions on request (depending on mechanical seal and gasket) **-20* or -25 to +120 or +140 °C**.
- Maximum operating pressure:
 - standard version (with mechanical seal BQ1EGG-WA) **16 bar @ 90 °C** and **10 bar @ 120 °C**
 - versions on request (with other mechanical seals) **16 bar @ 120 °C** and **14,9 bar @ 140 °C**

* Fluoro-elastomer: FPM (old ISO), FKM (ASTM & new ISO).

Motor specifications

- Squirrel cage in short circuit enclosed construction with external ventilation (TEFC).
- 2-pole and 4-pole ranges.
- **IP55** protection degree as motor (EN 60034-5), IPX5 as electro-pump (EN 60529).
- Performances according to EN 60034-1.
- **IE3** efficiency level (three-phase 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: 40 °C.

Note

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

List of the Directives

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



e-LNT SERIES RATING PLATE

ELECTRIC PUMP									
 									
TYPE		PN		kPa		No/Date		Code	
t max °C		t min °C		øF mm		øT mm			
Q m ³ /h		H m		n 1/min		P ₂ kW		øF MEI ≥ øT ηp %	
kg								REGULATION (EU) No 547/2012	

LEGEND

- | | |
|---|---|
| 1 - Pump / electric pump unit type | 10 - Trimmed impeller diameter (only filled in for trimmed impellers) |
| 2 - Pump code / electric pump unit code | 11 - Minimum operating liquid temperature |
| 3 - Flow range | 12 - Maximum operating liquid temperature |
| 4 - Head range | 13 - Maximum operating pressure |
| 5 - Nominal or maximum pump power | 14 - Hydraulic efficiency in best efficiency point |
| 6 - Speed | 15 - Minimum efficiency index MEI (Regulation (EU) No 547/2012) |
| 7 - Serial number or order number | 19 - Weight |
| 8 - Order position number | |
| 9 - Full impeller diameter (only filled in for trimmed impellers) | |

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

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

• = Available

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SIZE LNT..2	kW	VERSION	
		LNTE	LNTS
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	•	•
80-200/185	18,5	-	•
80-200/220	22	-	•
80-200/300	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	kW	VERSION	
		LNTE	LNTS
40-125/02B	0,25	•	-
40-125/02A	0,25	•	-
40-125/02	0,25	•	-
40-125/03	0,37	•	-
40-160/03	0,37	•	-
40-160/05	0,55	•	•
40-160/07	0,75	•	•
40-200/05	0,55	•	•
40-200/07	0,75	•	•
40-200/11	1,1	•	•
40-250/11	1,1	-	•
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	•	•
50-160/05	0,55	•	•
50-160/07	0,75	•	•
50-160/11	1,1	•	•
50-200/11A	1,1	•	•
50-200/11	1,1	•	•
50-200/15	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	•	•
65-160/11A	1,1	•	•
65-160/11	1,1	•	•
65-160/15	1,5	•	•
65-200/15	1,5	•	•
65-200/22A	2,2	•	•
65-200/22	2,2	•	•
65-250/22	2,2	•	•
65-250/30	3	•	•
65-250/40	4	•	•

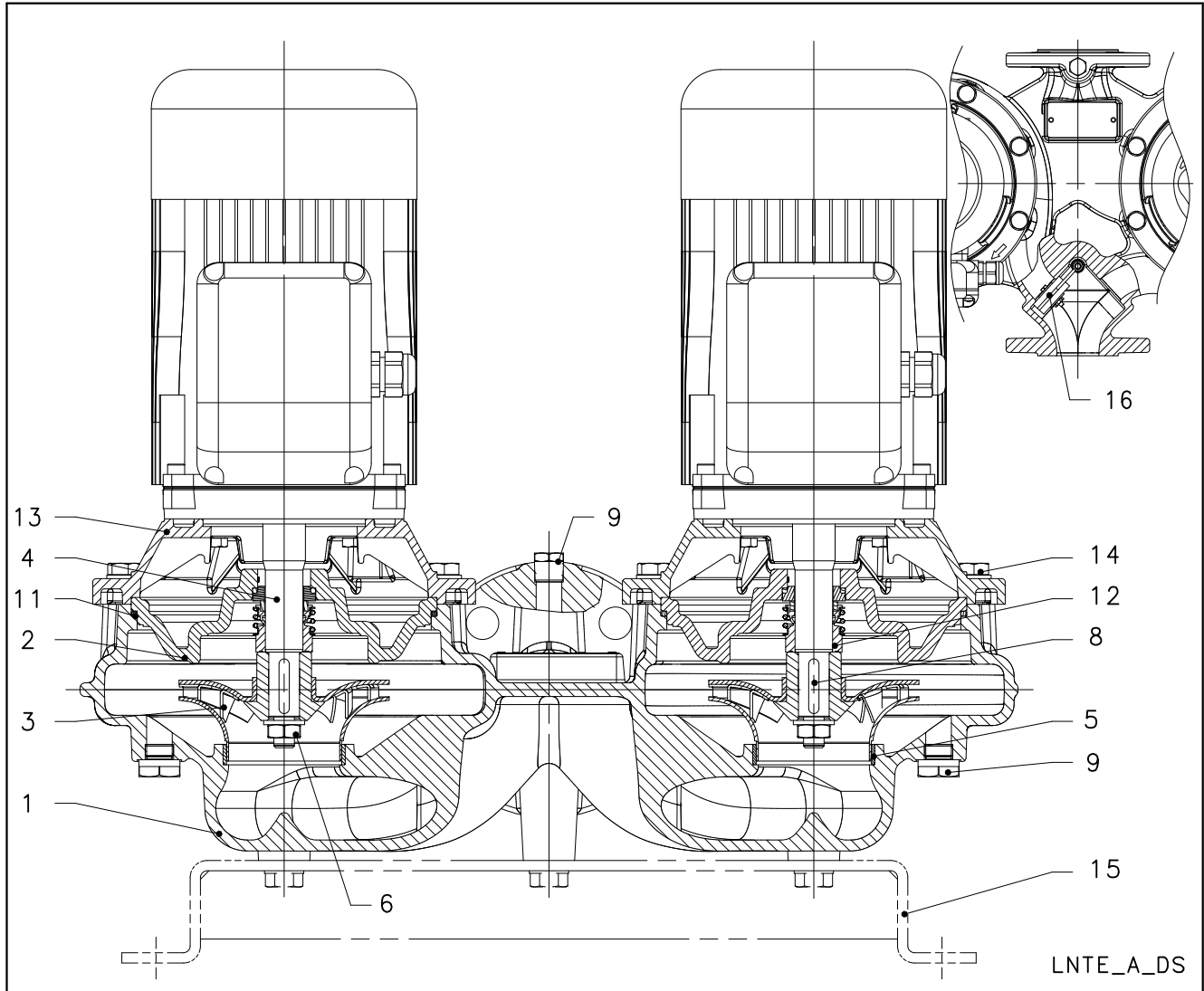
SIZE	kW	VERSION	
		LNTE	LNTS
80-160/11A	1,1	-	•
80-160/15B	1,5	•	-
80-160/11	1,1	-	•
80-160/15A	1,5	•	-
80-160/15	1,5	•	•
80-160/22A	2,2	•	•
80-160/22	2,2	•	•
80-200/22	2,2	-	•
80-200/30	3	-	•
80-200/40	4	-	•
80-250/55A	5,5	-	•
80-250/55	5,5	-	•
80-250/75	7,5	-	•
100-160/15	1,5	•	•
100-160/22A	2,2	•	•
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	-	•
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

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LNTE SERIES

ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS

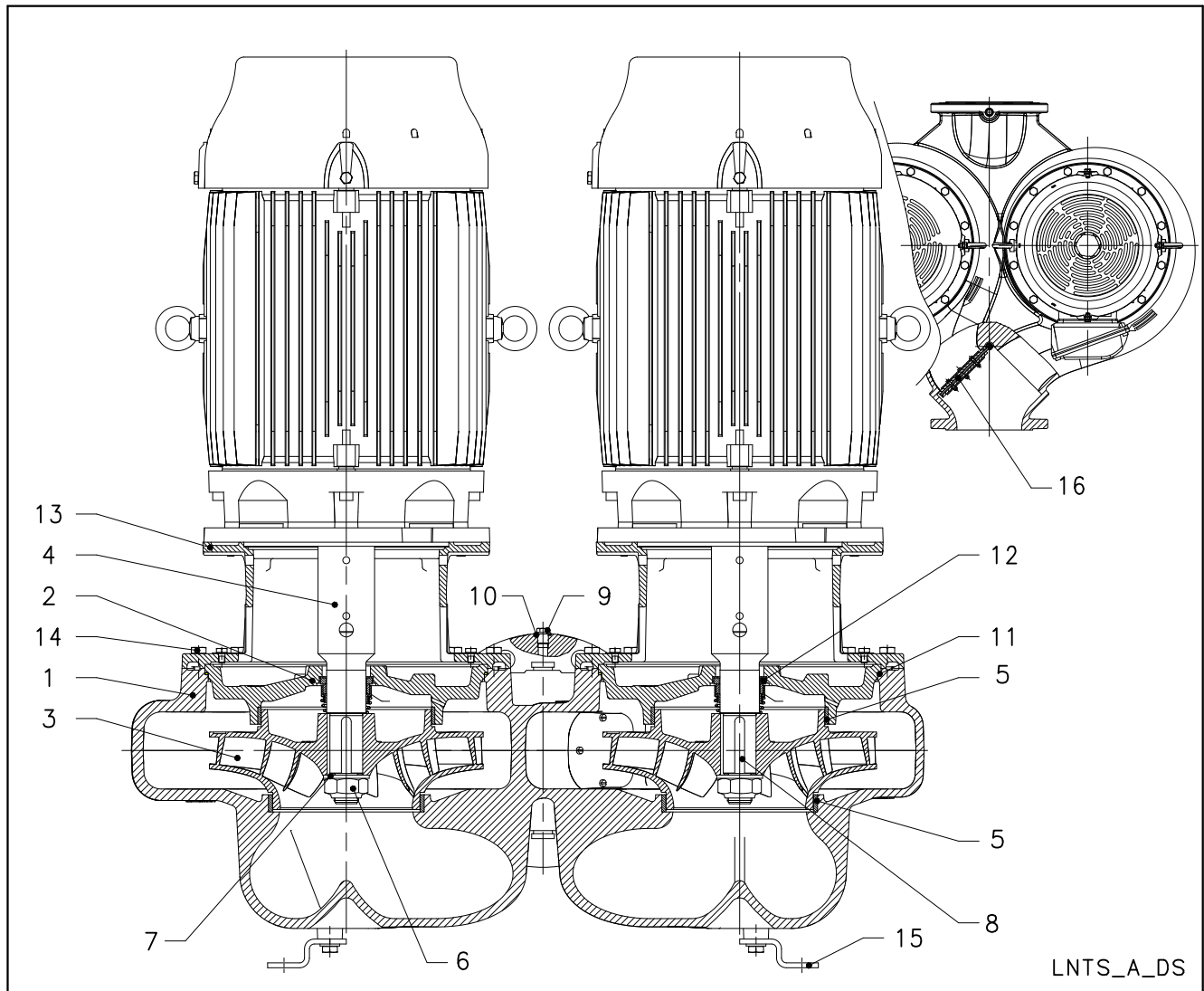


REF. N.	PART	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Volute casing	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
2	Casing cover	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
3	Impeller (40, 50, 65)	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
	Impeller (80, 100)	Cast iron	EN 1561 - GJL-200 (JL1030)	ASTM Class 30
	Impeller (80, 100)	Bronze	EN 1982 - CuSn10-C (CC480K)	UNS C90700
4	Stub shaft	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
5	Wear ring	Stainless steel	EN 10088 - X5CrNi18-10 (1.4301)	AISI 304
6	Impeller lock nut and washer	Stainless steel	EN 10088-1-X5CrNiMo17-12-2 (1.4401)	AISI 316
8	Impeller key	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
9	Fill and drain plugs	Nickel-plated brass	EN 12164-CuZn39Pb3 (CW614N)	-
11	O-Ring	EPDM (standard version)		
12	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
13	Motor adapter *	Aluminium	EN 1706-AC-AISI11Cu2 (Fe) (AC46100)	-
	Motor adapter	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
14	Volute casing fastening bolts and screws	Carbon steel		
15	Pump base (optional)	Carbon steel	EN 10025-2 - 1.0038	
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



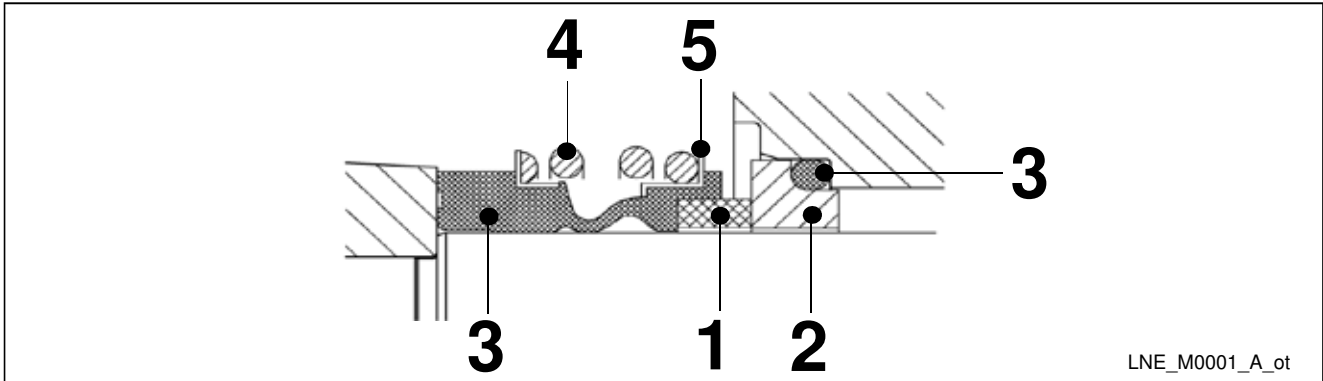
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REF. N.	PART	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Volute casing	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
2	Casing cover	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
3	Impeller (40, 50, 65)	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
	Impeller	Cast iron	EN 1561 - GJL-200 (JL1030)	ASTM Class 30
	Impeller	Bronze	EN 1982 - CuSn10-C (CC480K)	UNS C90700
4	Stub shaft	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
	Stub shaft (80-250, 100-200, 100-250, 125, 150)	Stainless steel	EN 10088 - X17CrNi16-2 (1.4057)	AISI 431
5	Wear ring	Stainless steel	EN 10088 - X5CrNi18-10 (1.4301)	AISI 304
6	Impeller nut	Stainless steel	A4 (~ 1.4401)	
7	Impeller washer	Stainless steel	A4 (~ 1.4401)	
8	Impeller key	Stainless steel	EN 10088 - X6CrNiMo17-12-2 (1.4571)	AISI 316Ti
9	Plug	Stainless steel	EN 10088 - X6CrNiMo17-12-2 (1.4571)	AISI 316Ti
10	Gasket	Asbestos-free synthetic fiber AFM 34		
11	O-Ring	EPDM (standard version)		
12	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
13	Motor adapter *	Aluminium	EN 1706-AC-AISI11Cu2 (Fe) (AC46100)	-
	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	

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

e-LNT SERIES MECHANICAL SEALS

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



LIST OF MATERIALS

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

TYPE OF SEAL

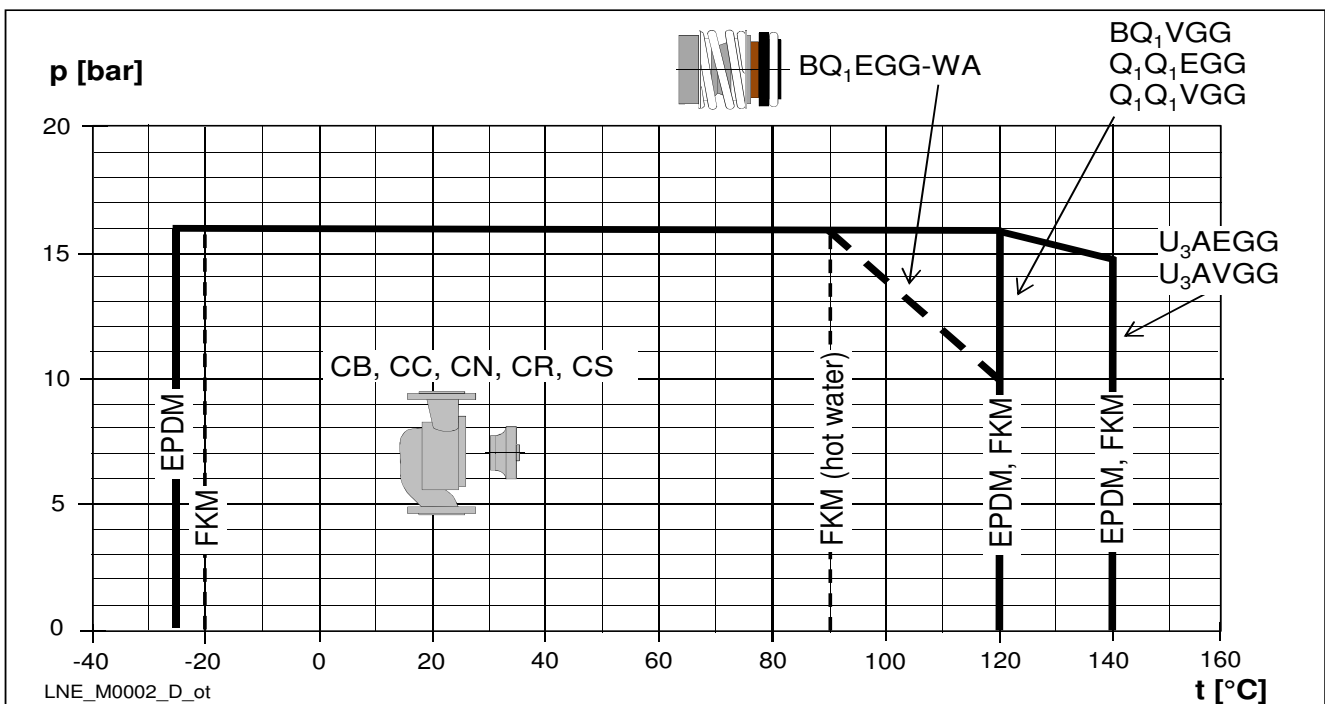
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TYPE	POSITION					PRESSURE (bar)	TEMPERATURE (°C)
	1 ROTATING ASSEMBLY	2 FIXED ASSEMBLY	3 ELASTOMERS	4 SPRINGS	5 OTHER COMPONENTS		
STANDARD MECHANICAL SEAL							
B Q ₁ E G G - WA	B	Q ₁	E	G	G	16/10	-25 ... +90/+120
OTHER TYPES OF MECHANICAL SEAL	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

*) for hot water: max. +90 °C

lne-lnt_tipi-ten-mec-en_b_tc

PRESSURE/TEMPERATURE APPLICATION LIMITS FOR COMPLETE PUMP



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 **Regulation (EC) No 640/2009** implementing the requirements of the EuP and ErP Directives which also establish the following deadlines:

from	kW	minimum level of efficiency (IE)
16 th June 2011	0,75 ÷ 375	IE2
27 th July 2014	0,75 ÷ 375	new exclusion criteria ¹⁾
1 st January 2015	< 7,5	IE2
	7,5 ÷ 375	IE3
		IE2 fitted with variable speed drive ²⁾
1 st January 2017	0,75 ÷ 375	IE3
		IE2 fitted with variable speed drive ²⁾

¹⁾ Fixed by subsequent **Regulation (EU) No 4/2014**.

²⁾ IE 2 motor can be supplied without frequency converter as the obligation to have that device is related to when motor works and not when is placed on the market.

- Short-circuit squirrel-cage motor, enclosed construction with external ventilation (TEFC).
- Rated power from 1,1 to 37 kW for 2-pole range and from 0,25 to 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.
- **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.
- **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.
- **PTC included** as standard only for WEG motors (one per phase, 155°C).
- Maximum ambient temperature: 40 °C.

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

P _N kW	MOTOR TYPE	IEC SIZE*	Construction Design	INPUT CURRENT I _n (A) 220-240 V	CAPACITOR		DATA FOR 230 V 50 Hz VOLTAGE						
					μF	V	min ⁻¹	I _s / I _n	η %	cosφ	T _n Nm	T _s /T _n	T _m /T _n
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.

LNTE-motm-2p50-en_a_te

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

P _N kW	Efficiency η_N															IE	Year of manufacture	
	%																	
	Δ 220 V Y 380 V			Δ 230 V Y 400 V			Δ 240 V Y 415 V			Δ 380 V Y 660 V			Δ 400 V Y 690 V					Δ 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
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	92,4	93,0	93,2	92,4	93,1	93,0	91,9	93,0	92,7

P _N kW	Manufacturer		IEC SIZE*	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage				
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						cos ϕ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model										
1,1	SM90RB14S2/311 PE		90R	SPECIAL	2	50	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
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	PLM160B34S3/3150 E3		160	0,88	9,51	48,6	2,73	4,32			
18,5	PLM160B34S3/3185 E3		160	0,88	9,81	59,9	2,81	4,53			
22	PLM160B34S3/3220 E3		160	0,85	10,9	71,1	3,26	5,12			

P _N kW	Voltage U _N V										n _N min ⁻¹	Operating conditions **			
	Δ			Y			Δ			Y		Altitude Above Sea Level (m)	T. amb min/max °C	ATEX	
	220 V	230 V	240 V	380 V	400 V	415 V	380 V	400 V	415 V	660 V					690 V
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	≤ 1000	-15 / 40	No
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	4,6	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.

** 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 _N kW	Efficiency η_N %																		IE	Year of manufacture
	Δ 220 V Y 380 V			Δ 230 V Y 400 V			Δ 240 V Y 415 V			Δ 380 V Y 660 V			Δ 400 V Y 690 V			Δ 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		
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	3	From 11/2014
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 _N kW	Manufacturer		IEC SIZE*	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage				
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						cos ϕ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model										
1,1	SM80B5/311 PE		80	B5	2	50	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 _N kW	Voltage U _N V										n _N min ⁻¹	Operating conditions **			
	Δ			Y			Δ			Y		Altitude Above Sea Level (m)	T. amb min/max °C	ATEX	
	220 V	230 V	240 V	380 V	400 V	415 V	380 V	400 V	415 V	660 V					690 V
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	≤ 1000	-15 / 40	No
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	4,6	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			
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			

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

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

LNES-IE3-mott-2p50-en_a_te

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

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

P _N kW	Efficiency η_N																		IE	Year of manufacture			
	%																						
	Δ 220 V Y 380 V			Δ 230 V Y 400 V			Δ 240 V Y 415 V			Δ 380 V Y 660 V			Δ 400 V Y 690 V			Δ 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					
0,25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0,37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0,55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0,75	80,4	81,3	79,8	81,1	81,4	79,1	81,4	81,2	78,4	80,4	81,2	78,4	80,4	81,2	78,4	80,4	81,2	78,4	80,4	81,2	78,4	2	06/2011
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	84,9	85,0	82,7	3	from 11/2014
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	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	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	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 _N kW	Manufacturer		IEC SIZE*	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage				
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						cos ϕ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model										
0,25	SM471B5/302		71	B5	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	SPECIAL	4	50	0,67	3,95	3,77	2,45	2,38
		SM490RB5S2/305					90R	0,67	3,95	3,77	2,45
0,75	LLM490RB14S2/307		90R				0,75	5,78	5,03	2,77	3,31
	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 _N kW	Voltage U _N V										n _N min ⁻¹	Operating conditions **			
	Δ			Y			Δ			Y		Altitude Above Sea Level (m)	T. amb min/max °C	ATEX	
	220 V	230 V	240 V	380 V	400 V	415 V	380 V	400 V	415 V	660 V					690 V
0,25	1,68	1,71	1,77	0,97	0,99	1,02	-	-	-	-	-	1375 ÷ 1400	≤ 1000	-15 / 40	No
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	3,08	3,03	3,01	1,78	1,75	1,74	1,78	1,75	1,74	1,03	1,01	1410 ÷ 1430			
	1,1	4,61	4,59	4,62	2,66	2,65	2,67	2,64	2,63	2,65	1,53	1,52			
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			

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

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

LNTE-IE3-mott-4p50-en_a_te

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

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 m³/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⁻¹ (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⁻¹ (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).

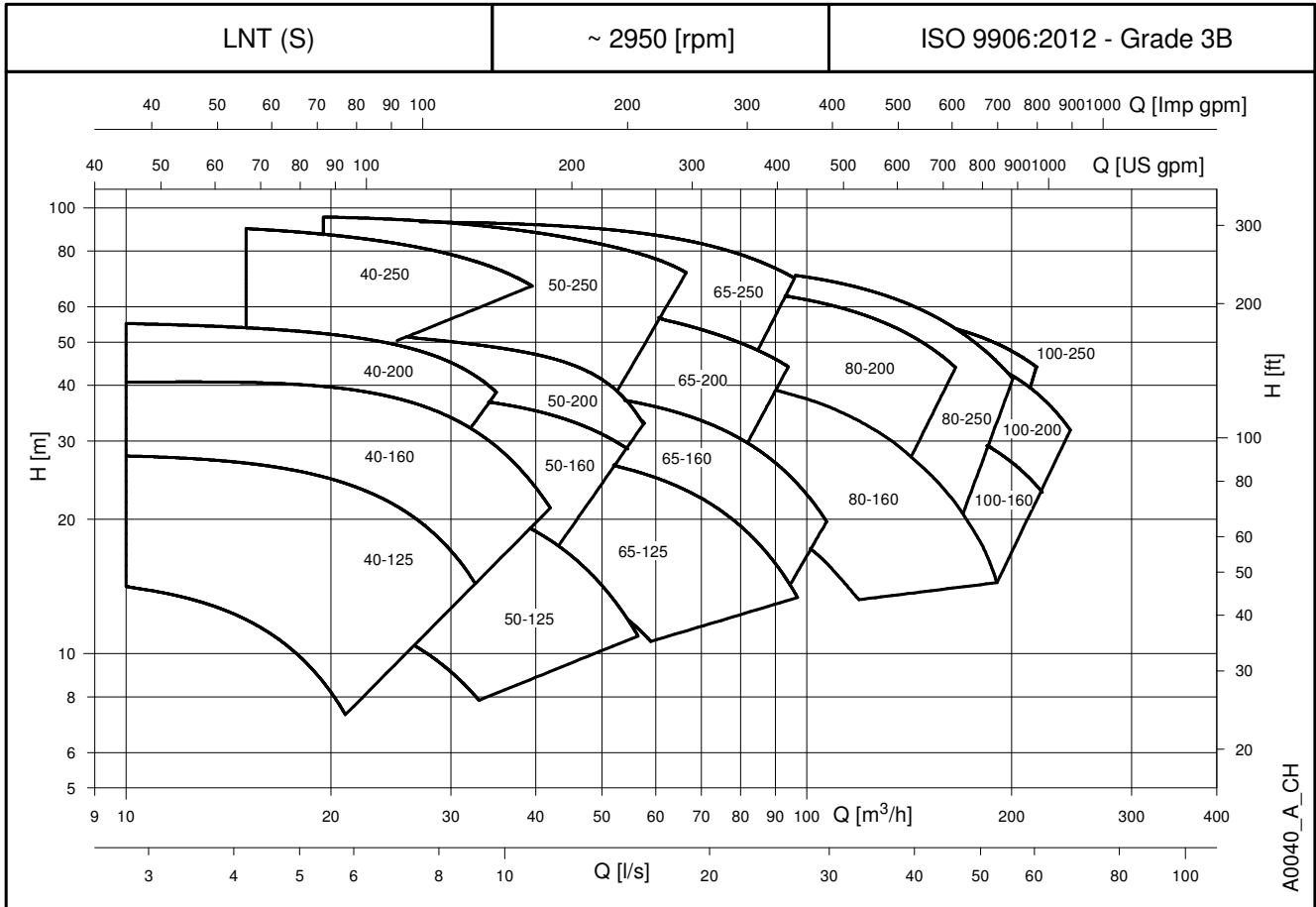
The Regulation also establishes the following deadlines.

from	minimum efficiency index (MEI)
1 st January 2013	MEI ≥ 0,1
1 st 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 η_p and $\varnothing T$ 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 (Ecodesign section).
- 15) The benchmark efficiency graphs with MEI = 0.7 and MEI = 0.4 are available at 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 40, 50, 65 SERIES (SINGLE OPERATION) HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	η _p % (3)	Q = DELIVERY															
						l/s	1,8	2,7	3,6	4,5	5,4	6,3	7,2	8,1	9,0	9,9	10,8	11,7			
						0	6	10	13	16	19	23	26	29	32	36	39	42			
						H = TOTAL HEAD METRES COLUMN OF WATER															
40-125/11*	1,1	113		•	54,7	14,6	14,7	14,2	13,1	11,2	8,8										
40-125/15*	1,5	123		•	56,2	17,9		17,7	16,9	15,4	13,2	10,6									
40-125/22*	2,2	133		•	58,3	23,0		23,1	22,4	21,3	19,6	17,4	14,7	11,6							
40-125/30	3	145	•		59,9	27,7			27,3	26,4	25,0	23,1	20,8	17,9	14,7						
40-160/30	3	150		•	65,4	30,4		31,0	30,9	30,3	29,1	27,3	24,9	21,9							
40-160/40	4	161		•	66,7	35,0		35,6	35,6	35,3	34,4	32,9	30,8	28,2	25,1	21,6					
40-160/55	5,5	171	•		68,0	40,0			40,7	40,5	39,8	38,6	36,9	34,6	31,9	28,6	25,0	21,2			
40-200/40	4	171		•	50,4	38,1		37,1	36,4	35,3	33,6	31,1									
40-200/55	5,5	186		•	51,8	45,6		44,6	43,9	42,9	41,5	39,6	36,8								
40-200/75	7,5	205	•		53,7	56,1			54,4	53,5	52,3	50,8	48,7	46,0	42,4						
40-250/92	9,2	226		•	47,3	66,9			66,9	65,3	63,2	60,7	57,8								
40-250/110A	11	226		•	47,3	66,9			66,9	65,3	63,2	60,7	57,8								
40-250/110	11	239		•	48,1	75,5				74,3	72,3	69,9	67,2	63,9							
40-250/150	15	259	•		49,7	89,8				89,3	87,4	85,1	82,5	79,5	76,2	72,4	67,9				

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	η _p % (3)	Q = DELIVERY															
						l/s	2,7	4,2	5,6	7,0	8,5	9,9	11,3	12,7	14,2	15,6	17,0	18,5			
						0	10	15	20	25	30	36	41	46	51	56	61	66			
						H = TOTAL HEAD METRES COLUMN OF WATER															
50-125/15*	1,5	105		•	59,2	14,3	13,8	13,3	12,3	10,8	8,9										
50-125/22*	2,2	118		•	61,0	18,1		17,1	16,3	15,1	13,4	11,4	9,1								
50-125/30	3	130		•	62,7	21,9		21,0	20,3	19,3	17,9	16,0	13,9	11,5							
50-125/40	4	135	•		64,4	25,8			24,2	23,3	22,1	20,5	18,5	16,2	13,7	11,1					
50-160/40	4	139		•	63,5	27,3		27,0	26,7	25,9	24,7	23,0	20,9								
50-160/55	5,5	154		•	65,1	33,8		33,5	33,3	32,8	31,9	30,5	28,8	26,6							
50-160/75	7,5	165	•		66,4	39,1			38,6	38,2	37,4	36,3	34,8	32,9	30,6						
50-200/75	7,5	179		•	57,0	42,8		42,8	41,6	40,3	38,8	37,1	34,4	30,1							
50-200/92	9,2	189		•	58,0	48,0		48,3	47,0	45,7	44,3	42,6	40,5	37,3	32,3						
50-200/110A	11	189		•	58,0	48,0		48,3	47,0	45,7	44,3	42,6	40,5	37,3	32,3						
50-200/110	11	199	•		59,0	53,6			52,9	51,4	50,0	48,5	46,6	44,1	40,3	34,6					
50-250/110	11	210		•	57,5	61,3		62,3	61,3	59,6	57,5	55,1	52,5	49,5							
50-250/150	15	228		•	58,9	72,9			73,4	71,9	69,9	67,6	65,1	62,4	59,3						
50-250/185	18,5	243		•	60,0	83,4			84,4	83,0	81,1	78,9	76,4	73,8	70,9	67,6	63,5				
50-250/220	22	257,5	•		61,0	94,0			95,3	94,1	92,3	90,1	87,7	85,0	82,3	79,3	75,8	71,6			

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	η _p % (3)	Q = DELIVERY															
						l/s	5,017	7	9,509	11,75	14	16,25	18,49	20,74	22,98	25,23	27,476	29,722			
						0	18	26	34	42	50	58	67	75	83	91	99	107			
						H = TOTAL HEAD METRES COLUMN OF WATER															
65-125/30	3	118		•	65,9	18,7	17,8	17,2	16,3	14,9	13,0	10,8									
65-125/40	4	130		•	67,2	22,2		20,7	19,9	18,7	17,1	15,1	12,7								
65-125/55	5,5	144		•	68,7	27,3		25,8	25,0	24,0	22,7	20,9	18,8	16,4	13,7						
65-125/75	7,5	148	•		70,1	31,1		29,6	28,9	28,0	26,7	25,2	23,2	21,0	18,4	15,6					
65-160/75	7,5	159		•	65,9	32,6		31,1	30,3	29,3	27,8	26,0	23,7	21,0	18,0						
65-160/92	9,2	170		•	67,0	37,1		35,6	34,9	33,9	32,6	30,9	28,9	26,4	23,6	20,5					
65-160/110A	11	170		•	67,0	37,1		35,6	34,9	33,9	32,6	30,9	28,9	26,4	23,6	20,5					
65-160/110	11	176	•		68,0	42,0		40,4	39,8	38,9	37,7	36,1	34,3	32,0	29,4	26,5	23,2	19,8			
65-200/110	11	179		•	64,8	45,1		45,1	44,1	42,5	40,3	37,8	35,0								
65-200/150	15	197		•	66,5	55,1		55,3	54,6	53,3	51,4	49,0	46,4	43,5	40,3						
65-200/185	18,5	209	•		67,7	62,4			62,2	61,1	59,3	57,1	54,5	51,7	48,7	45,4					
65-250/185	18,5	220		•	65,3	66,6		67,4	66,5	64,9	62,6	59,7	56,1								
65-250/220	22	232		•	66,3	74,4		75,5	74,7	73,3	71,2	68,5	65,2	61,3	56,8						
65-250/300	30	256	•		68,2	91,6			92,5	91,3	89,6	87,3	84,5	81,1	77,2	72,7					

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

LNT-40-50-65_2p50S_a_th

(1) Medium diameter of full impeller (2) Medium diameter of trimmed impeller (3) Hydraulic efficiency of pump *Available also in single-phase version.

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

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	η _p % (3)	Q = DELIVERY												
						l/s	7	11,65	16,07	20,49	24,91	29,32	33,74	38,16	42,58	47	51,415	56
						m ³ /h	0	26	42	58	74	90	106	121	137	153	169	185
H = TOTAL HEAD METRES COLUMN OF WATER																		
80-160/75	7,5	145		•	71,2	28,3	27,9	27,4	26,2	24,2	21,3							
80-160/92	9,2	151		•	71,2	30,8		29,9	28,8	27,0	24,3	20,9						
80-160/110A	11	151		•	71,9	30,8		29,9	28,8	27,0	24,3	20,9						
80-160/110	11	159		•	72,7	34,2		33,4	32,5	30,8	28,4	25,2	21,4	17,3				
80-160/150	15	175		•	74,4	41,8		41,0	40,2	38,9	36,9	34,2	30,8	26,9	22,6			
80-160/185	18,5	180	•		74,9	44,4		43,5	42,8	41,6	39,7	37,1	33,9	30,0	25,8			
80-200/185	18,5	189		•	70,0	49,5		49,5	48,4	46,4	43,6	39,9	35,4	30,1				
80-200/220	22	199		•	70,8	55,1		55,2	54,2	52,5	49,9	46,5	42,3	37,3				
80-200/300	30	220	•		72,6	68,0		68,3	67,5	66,1	64,0	61,1	57,5	53,2	48,2			
80-250/370	37	229	•		73,3	72,4		74,8	74,4	73,4	71,5	69,0	65,8	61,9	57,4	52,4	47,0	41,4

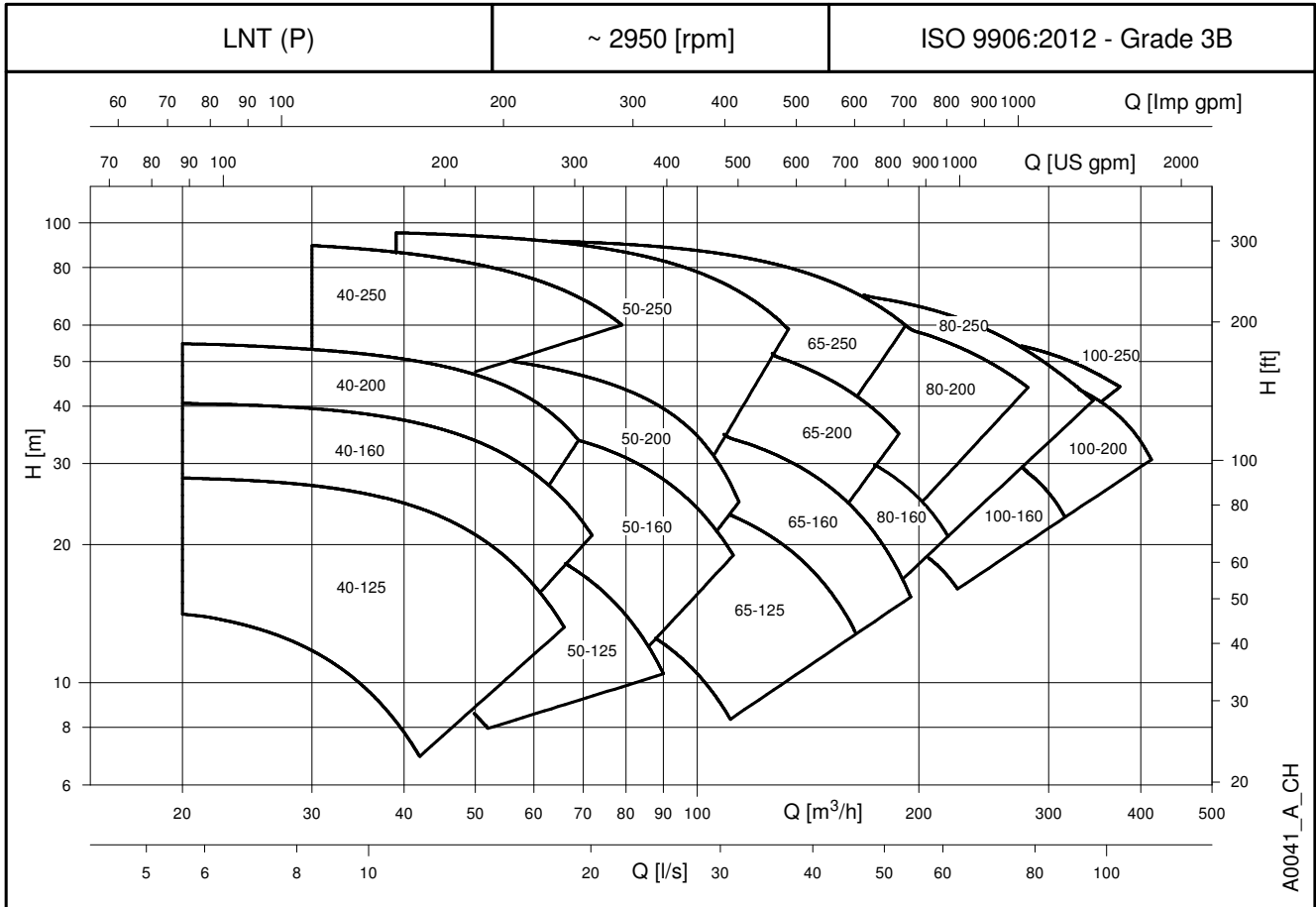
PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	η _p % (3)	Q = DELIVERY												
						l/s	10	16,2	22,22	28,24	34,26	40,28	46,3	52,31	58,33	64,35	70,37	76
						m ³ /h	0	37	58	80	102	123	145	167	188	210	232	253
H = TOTAL HEAD METRES COLUMN OF WATER																		
100-160/110	11	144		•	68,9	26,7	25,9	25,2	24,1	22,6	20,5	17,8						
100-160/150	15	158		•	70,4	32,4		30,9	29,9	28,6	26,8	24,5	21,6					
100-160/185	18,5	168		•	71,4	36,9		35,3	34,4	33,1	31,5	29,4	26,8	23,6				
100-160/220	22	177	•		72,5	41,2		39,6	38,7	37,5	35,9	34,0	31,6	28,7	25,2			
100-200/220	22	181		•	73,7	41,4		40,2	39,7	38,7	37,0	34,4	30,8	26,2	20,5			
100-200/300	30	195		•	74,8	48,3		47,0	46,6	45,8	44,4	42,3	39,4	35,6	30,7	24,9		
100-200/370	37	208	•		76,2	55,4		53,9	53,5	52,8	51,7	50,0	47,5	44,3	40,1	35,1	29,0	22,0
100-250/370	37	214	•		76,9	63,0				60,2	59,7	59,0	58,0	56,7	55,1	53,0	50,5	47,5

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

LNT-80-100_2p505-en_a_th

(1) Medium diameter of full impeller (2) Medium diameter of trimmed impeller (3) Hydraulic efficiency of pump.

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



e-LNT 40, 50, 65 SERIES (PARALLEL OPERATION) HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	Q = DELIVERY												
					l/s	3,2	4,9	6,6	8,3	10,0	11,7	13,4	15,1	16,8	18,5	20,2	22,0
					0	11	18	24	30	36	42	48	54	61	67	73	79
					H = TOTAL HEAD METRES COLUMN OF WATER												
40-125/11*	1,1	113		•	14,6		14,5	13,5	11,8	9,5							
40-125/15*	1,5	123		•	17,9		18,0	17,3	15,9	13,9	11,4						
40-125/22*	2,2	133		•	23,0		23,3	22,8	21,8	20,3	18,2	15,7	12,8				
40-125/30	3	145	•		27,7			27,7	26,9	25,7	23,9	21,7	19,0	16,0			
40-160/30	3	150		•	30,4		30,7	30,2	29,1	27,5	25,2	22,3					
40-160/40	4	161		•	35,1		35,5	35,1	34,2	32,8	30,8	28,2	25,1	21,5			
40-160/55	5,5	171	•		40,1			40,3	39,5	38,3	36,6	34,3	31,6	28,3	24,5		
40-200/40	4	171		•	38,2	37,5	37,0	36,1	34,8	32,9	30,1						
40-200/55	5,5	186		•	45,7		44,5	43,6	42,5	40,9	38,6	35,6	31,7				
40-200/75	7,5	205	•		56,3		55,0	54,2	53,1	51,7	49,9	47,6	44,5	40,7	35,8		
40-250/92	9,2	226		•	67,7				65,4	63,2	60,5	57,1	53,1				
40-250/110A	11	226		•	67,7				65,4	63,2	60,5	57,1	53,1				
40-250/110	11	239		•	76,4				74,4	72,4	69,8	66,7	63,0	58,7			
40-250/150	15	259	•		91,0					87,5	85,2	82,3	79,0	75,2	70,7	65,7	60,0

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	Q = DELIVERY												
					l/s	5,5	8,3	11,2	14,1	16,9	19,8	22,6	25,5	28,4	31,2	34,1	36,9
					0	20	30	40	51	61	71	82	92	102	112	123	133
					H = TOTAL HEAD METRES COLUMN OF WATER												
50-125/15*	1,5	105		•	14,8	13,5	12,5	10,8	8,4								
50-125/22*	2,2	118		•	18,6		16,4	15,0	13,0	10,2							
50-125/30	3	130		•	22,6		20,4	19,2	17,4	15,0	12,0						
50-125/40	4	135	•		26,6		24,3	23,2	21,6	19,5	16,8	13,5					
50-160/40	4	139		•	27,9		26,5	25,6	24,1	21,9	18,9	15,2					
50-160/55	5,5	154		•	34,7		33,1	32,4	31,3	29,5	27,0	23,9	20,1				
50-160/75	7,5	165	•		40,2		38,5	37,8	36,8	35,3	33,2	30,4	27,1	23,1			
50-200/75	7,5	179		•	43,5		43,0	41,5	39,5	37,0	33,8	29,5	23,7				
50-200/92	9,2	189		•	48,8		48,6	47,1	45,2	42,8	39,9	36,2	31,3	24,8			
50-200/110A	11	189		•	48,8		48,6	47,1	45,2	42,8	39,9	36,2	31,3	24,8			
50-200/110	11	199	•		54,5		54,5	53,0	51,2	48,9	46,2	42,9	38,7	33,2	26,0		
50-250/110	11	210		•	62,8		62,1	60,9	59,0	56,2	52,5	48,0	42,5				
50-250/150	15	228		•	74,8			73,1	71,4	69,0	65,9	61,9	57,1	51,4			
50-250/185	18,5	243		•	85,7			84,1	82,6	80,4	77,6	74,0	69,7	64,6	58,7	51,9	
50-250/220	22	257,5	•		96,6			95,1	93,6	91,7	89,1	85,8	81,9	77,3	71,9	65,7	58,7

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	Q = DELIVERY												
					l/s	10,03	14	18,05	22,06	26,08	30,09	34,1	38,12	42,13	46,14	50,154	54,167
					0	36	51	65	79	94	108	123	137	152	166	181	195
					H = TOTAL HEAD METRES COLUMN OF WATER												
65-125/30	3	118		•	19,3	17,4	16,5	15,3	13,7	11,5	8,9						
65-125/40	4	130		•	22,9		20,1	19,0	17,5	15,7	13,3	10,5					
65-125/55	5,5	144		•	28,1		25,2	24,2	22,9	21,3	19,3	16,9	14,0	10,8			
65-125/75	7,5	148	•		32,1			28,0	26,8	25,4	23,5	21,4	18,8	15,8	12,4		
65-160/75	7,5	159		•	34,1		30,6	29,5	28,1	26,3	24,1	21,5	18,4	14,9			
65-160/92	9,2	170		•	38,8		35,2	34,1	32,8	31,2	29,2	26,8	23,9	20,7	17,0		
65-160/110A	11	170		•	38,8		35,2	34,1	32,8	31,2	29,2	26,8	23,9	20,7	17,0		
65-160/110	11	176	•		43,9			39,1	37,8	36,3	34,4	32,2	29,6	26,6	23,2	19,5	15,4
65-200/110	11	179		•	44,8		44,2	42,9	41,0	38,6	35,8	32,4	28,6				
65-200/150	15	197		•	54,8		54,5	53,4	51,8	49,7	47,1	44,1	40,7	36,9	32,6		
65-200/185	18,5	209	•		62,1			61,0	59,6	57,6	55,2	52,4	49,2	45,6	41,6	37,2	
65-250/185	18,5	220		•	67,1		66,5	65,4	63,6	61,1	57,9	53,9	49,3				
65-250/220	22	232		•	75,0		74,5	73,5	72,0	69,7	66,8	63,1	58,8	54,0			
65-250/300	30	256	•		92,3			91,2	90,0	88,1	85,7	82,6	78,9	74,6	69,7	64,4	

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

LNT-40-50-65_2p50P-en_a_th

(1) Medium diameter of full impeller (2) Medium diameter of trimmed impeller *Available also in single-phase version.

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

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	Q = DELIVERY													
					l/s	0	14	21,86	29,25	36,65	44,05	51,45	58,84	66,24	73,64	81,04	88,436	96
					m ³ /h	0	52	79	105	132	159	185	212	238	265	292	318	345
H = TOTAL HEAD METRES COLUMN OF WATER																		
80-160/75	7,5	145		•	28,7	27,3	26,8	25,5	23,4	20,4								
80-160/92	9,2	151		•	31,3		29,3	28,2	26,2	23,4	20,0							
80-160/110A	11	151		•	31,3		29,3	28,2	26,2	23,4	20,0							
80-160/110	11	159		•	34,9		32,8	31,8	30,1	27,5	24,2	20,5						
80-160/150	15	175		•	42,7		40,4	39,6	38,2	36,1	33,3	29,8	26,0	22,0				
80-160/185	18,5	180	•		45,3		42,9	42,1	40,8	38,9	36,2	32,9	29,1	25,1				
80-200/185	18,5	189		•	49,4		49,0	47,7	45,5	42,4	38,5	34,1	29,5					
80-200/220	22	199		•	55,1		54,7	53,6	51,6	48,8	45,2	40,9	36,3					
80-200/300	30	220	•		68,1		67,8	66,9	65,3	63,0	59,9	56,1	51,7	46,9				
80-250/370	37	229	•		73,3			73,2	72,1	70,3	67,7	64,3	60,2	55,6	50,6	45,7	41,2	

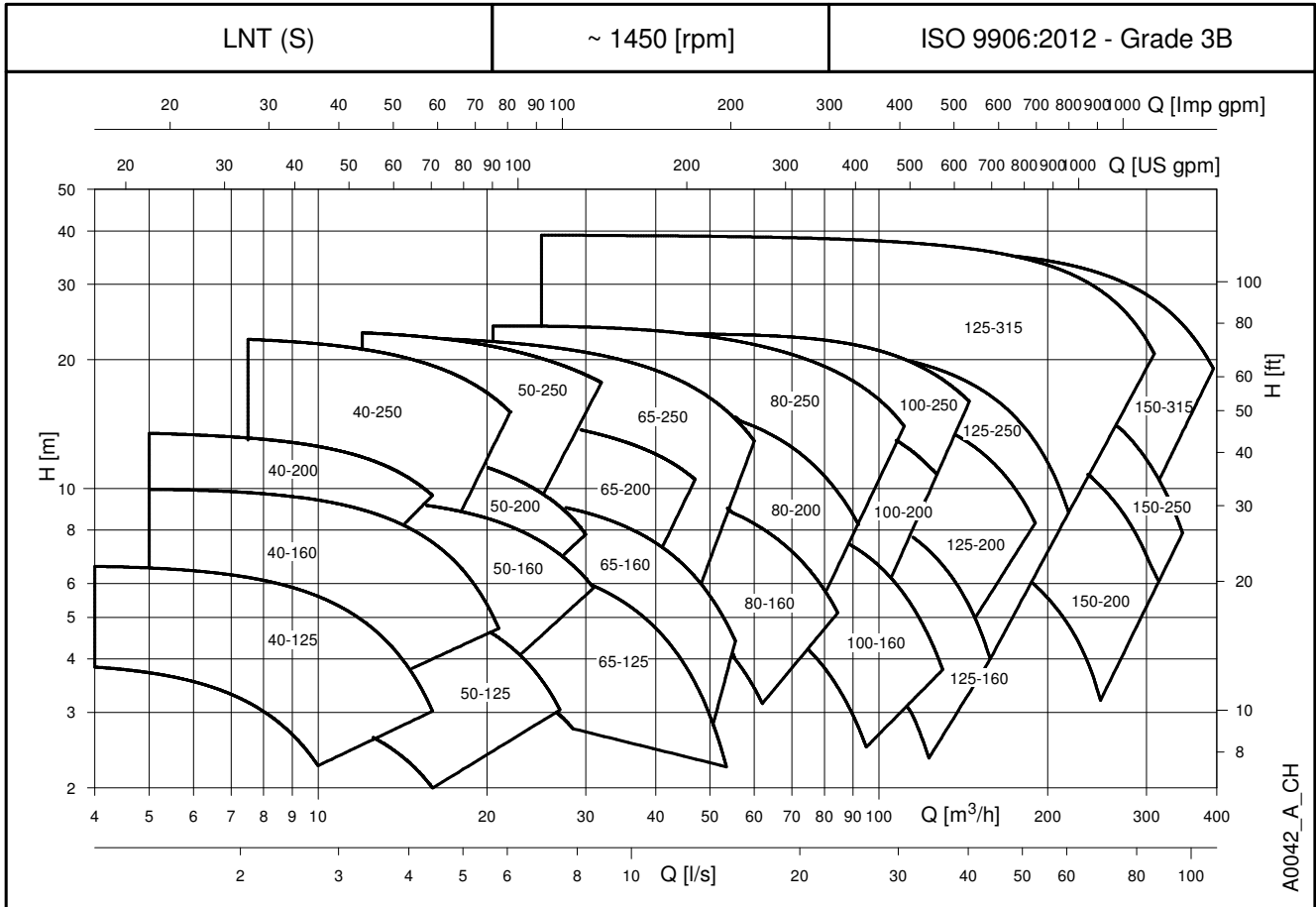
PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	Q = DELIVERY													
					l/s	0	23	31,86	41,18	50,49	59,8	69,12	78,43	87,75	97,06	106,4	115,69	125
					m ³ /h	0	81	115	148	182	215	249	282	316	349	383	416	450
H = TOTAL HEAD METRES COLUMN OF WATER																		
100-160/110	11	144		•	26,8		23,3	22,4	20,8	17,6								
100-160/150	15	158		•	32,7		28,7	27,8	26,7	24,7	21,1							
100-160/185	18,5	168		•	37,3		33,0	32,0	31,0	29,5	26,9	22,4						
100-160/220	22	177	•		41,8		37,2	36,1	35,0	33,8	31,8	28,5						
100-200/220	22	181		•	41,0	39,8	39,6	39,1	38,0	36,4	34,2	31,1	26,6	19,7				
100-200/300	30	195		•	47,9		46,4	46,0	45,2	43,8	42,0	39,6	36,3	31,7	25,0			
100-200/370	37	208	•		55,0		53,3	52,9	52,2	51,1	49,5	47,5	44,8	41,3	36,6	30,0	20,2	
100-250/370	37	214	•		61,5					59,2	58,5	57,6	56,3	54,8	52,8	50,3	47,5	

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

LNT-80-100_2p50P-en_a_th

(1) Medium diameter of full impeller (2) Medium diameter of trimmed impeller.

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



e-LNT 40, 50, 65 SERIES (SINGLE OPERATION) HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	η _p % (3)	Q = DELIVERY												
						l/s	0,7	1,2	1,7	2,2	2,7	3,2	3,6	4,1	4,6	5,1	5,6	6,1
						m ³ /h	0	2	4	6	8	10	11	13	15	17	18	20
H = TOTAL HEAD METRES COLUMN OF WATER																		
40-125/02B	0,25	113		•	54,2	3,8	3,9	3,8	3,5	3,1	2,4							
40-125/02A	0,25	123		•	55,4	4,5		4,6	4,4	4,0	3,4	2,7						
40-125/02	0,25	133		•	56,9	5,4		5,5	5,3	4,9	4,4	3,8	3,0					
40-125/03	0,37	145	•		58,6	6,4		6,6	6,4	6,1	5,7	5,2	4,5	3,6				
40-160/03	0,37	150		•	59,3	7,3		7,6	7,5	7,2	6,9	6,4	5,7					
40-160/05	0,55	161		•	60,5	8,5			8,7	8,5	8,1	7,7	7,1	6,4	5,6			
40-160/07	0,8	171	•		61,8	9,7			9,9	9,8	9,5	9,1	8,6	7,9	7,2	6,3	5,2	
40-200/05	0,55	171		•	47,1	9,4		9,1	8,9	8,5	7,9	7,1						
40-200/07	0,75	186		•	48,6	11,2			10,8	10,4	10,0	9,3	8,3					
40-200/11	1,1	205	•		50,5	13,8			13,4	13,1	12,7	12,1	11,3	10,4				
40-250/11	1,1	226		•	48,6	16,6				16,4	16,0	15,3	14,5	13,5	12,3	10,9		
40-250/15A	1,5	226		•	48,6	16,6				16,4	16,0	15,3	14,5	13,5	12,3	10,9		
40-250/15	1,5	239		•	49,5	18,8				18,6	18,2	17,6	16,9	16,0	14,9	13,6		
40-250/22	2,2	259	•		51,1	22,3				22,3	21,9	21,4	20,8	20,0	19,0	17,9	16,6	15,1

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	η _p % (3)	Q = DELIVERY													
						l/s	0	1,3	2,0	2,7	3,4	4,1	4,8	5,5	6,1	6,8	7,5	8,2	8,9
						m ³ /h	0	5	7	10	12	15	17	20	22	25	27	30	32
H = TOTAL HEAD METRES COLUMN OF WATER																			
50-125/02A	0,25	105		•	59,3	3,4	3,2	3,1	3,0	2,7	2,3								
50-125/02	0,25	118		•	61,2	4,3		4,0	3,9	3,6	3,3	2,9							
50-125/03	0,37	130		•	62,9	5,2		4,9	4,8	4,6	4,3	4,0	3,5	3,0					
50-125/05	0,55	135	•		64,5	6,2			5,8	5,7	5,4	5,1	4,7	4,3	3,7				
50-160/05	0,55	139		•	61,0	6,8		6,7	6,6	6,4	6,1	5,7	5,2						
50-160/07	0,75	154		•	62,5	8,4		8,3	8,2	8,1	7,8	7,5	7,1	6,6	6,0	5,3			
50-160/11	1,1	165	•		64,0	9,7			9,6	9,4	9,2	8,9	8,6	8,1	7,6	7,0	6,3		
50-200/11A	1,1	179		•	54,7	10,6				10,0	9,5	9,0	8,3	7,6	6,7				
50-200/11	1,1	189		•	55,7	11,9				11,4	10,9	10,4	9,8	9,1	8,3	7,3			
50-200/15	1,5	199	•		56,7	13,3				12,8	12,4	11,9	11,3	10,6	9,9	9,0	8,0		
50-250/15	1,5	210		•	55,7	15,3			15,0	14,7	14,2	13,6	12,9	12,1	11,3				
50-250/22A	2,2	228		•	57,0	18,3				17,7	17,3	16,7	16,1	15,3	14,5	13,7			
50-250/22	2,2	243		•	57,9	20,9				20,4	20,0	19,5	18,9	18,2	17,4	16,6			
50-250/30	3	257,5	•		59,0	23,5				23,1	22,8	22,3	21,7	21,0	20,3	19,5	18,6	17,7	

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	η _p % (3)	Q = DELIVERY													
						l/s	0	2,308	4	4,919	6,224	7,53	8,835	10,14	11,45	12,75	14,06	15,361	16,667
						m ³ /h	0	8	13	18	22	27	32	37	41	46	51	55	60
H = TOTAL HEAD METRES COLUMN OF WATER																			
65-125/03	0,37	118		•	64,7	4,6	4,4	4,2	3,9	3,5	2,9								
65-125/05	0,55	130		•	66,0	5,5		5,1	4,8	4,4	3,9	3,3	2,6						
65-125/07	0,75	144		•	67,6	6,8		6,3	6,1	5,7	5,3	4,8	4,1	3,4	2,5				
65-125/11	1,1	148	•		68,9	7,7		7,2	7,0	6,7	6,3	5,8	5,2	4,5	3,7	2,8			
65-160/11A	1,1	159		•	66,2	8,1		7,7	7,4	7,1	6,6	6,0	5,3	4,5	3,5				
65-160/11	1,1	170		•	67,1	9,2		8,8	8,5	8,2	7,8	7,3	6,6	5,8	4,9	3,9			
65-160/15	1,5	176	•		68,4	10,4		10,0	9,7	9,5	9,1	8,6	8,0	7,3	6,4	5,5	4,5		
65-200/15	1,5	179		•	65,2	10,9		11,0	10,6	10,1	9,5	8,7	7,8						
65-200/22A	2,2	197		•	66,8	13,3		13,5	13,2	12,7	12,1	11,4	10,7	9,7					
65-200/22	2,2	209	•		67,9	15,1		15,4	15,0	14,6	14,0	13,4	12,7	11,8	10,8				
65-250/22	2,2	220		•	65,0	16,6		16,3	16,0	15,4	14,7	13,8	12,8	11,5	10,1				
65-250/30	3	232		•	66,0	18,6		18,3	18,0	17,5	16,8	16,0	15,0	13,8	12,5	10,9			
65-250/40	4	256	•		68,0	22,8			22,3	21,9	21,3	20,5	19,6	18,6	17,4	16,1	14,6	12,9	

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

LNT-40-50-65_4p50S-en_a_th

(1) Medium diameter of full impeller (2) Medium diameter of trimmed impeller (3) Hydraulic efficiency of pump.

e-LNT 80, 100 SERIES (SINGLE OPERATION) HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	η _p % (3)	Q = DELIVERY													
						l/s	4	6,091	8,565	11,04	13,51	15,99	18,46	20,94	23,41	25,88	28,359	31	
						0	13	22	31	40	49	58	66	75	84	93	102	111	
						H = TOTAL HEAD METRES COLUMN OF WATER													
80-160/11A	1,1	145		•	70,3	6,8	6,9	6,7	6,3	5,6	4,8	3,7							
80-160/15B	1,5	145		•	70,3	6,8	6,9	6,7	6,3	5,6	4,8	3,7							
80-160/11	1,1	151		•	71,0	7,4		7,4	6,9	6,3	5,5	4,5							
80-160/15A	1,5	151		•	71,0	7,4		7,4	6,9	6,3	5,5	4,5							
80-160/15	1,5	159		•	71,8	8,3		8,2	7,9	7,3	6,5	5,6	4,5						
80-160/22A	2,2	175		•	73,3	10,1		10,2	9,8	9,3	8,6	7,8	6,8	5,6					
80-160/22	2,2	180	•		74,1	10,7		10,8	10,5	10,0	9,3	8,5	7,6	6,4	5,2				
80-200/22	2,2	189		•	71,3	12,3		12,1	11,7	11,1	10,1	8,9	7,3						
80-200/30	3	199		•	72,0	13,7		13,5	13,1	12,6	11,7	10,6	9,1	7,4					
80-200/40	4	220	•		74,1	16,9		16,7	16,4	16,0	15,2	14,3	13,1	11,6	9,9				
80-250/55A	5,5	229		•	70,2	17,7		18,7	18,4	17,9	17,1	16,2	15,1	13,9	12,5	10,9			
80-250/55	5,5	243		•	71,4	20,1		21,2	20,9	20,4	19,8	18,9	17,9	16,8	15,5	14,0	12,2		
80-250/75	7,5	258	•		72,4	22,8		24,0	23,8	23,4	22,8	22,0	21,0	19,9	18,7	17,3	15,8	14,0	

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	η _p % (3)	Q = DELIVERY													
						l/s	6	9,222	12,33	15,43	18,54	21,64	24,75	27,86	30,96	34,07	37,172	40	
						0	22	33	44	56	67	78	89	100	111	123	134	145	
						H = TOTAL HEAD METRES COLUMN OF WATER													
100-160/15	1,5	144		•	70,7	6,7	5,9	5,8	5,6	5,3	4,7	4,0	3,0						
100-160/22A	2,2	158		•	72,2	8,2		7,0	6,9	6,7	6,3	5,7	4,9	3,9					
100-160/22	2,2	168		•	72,8	9,3		8,0	7,9	7,7	7,4	6,9	6,2	5,3	4,3				
100-160/30	3	177	•		74,2	10,3		9,0	8,9	8,7	8,4	8,0	7,4	6,6	5,6	4,5			
100-200/30	3	181		•	71,7	10,8		10,7	10,6	10,3	9,8	9,0	7,9						
100-200/40	4	195		•	72,9	12,6		12,5	12,4	12,2	11,8	11,2	10,3	9,2					
100-200/55A	5,5	208		•	74,1	14,4		14,3	14,3	14,1	13,8	13,3	12,5	11,6	10,4				
100-200/55	5,5	219	•		74,9	16,1		15,9	15,9	15,8	15,5	15,1	14,5	13,6	12,6	11,3			
100-250/55A	5,5	214		•	71,4	15,6		15,5	15,4	15,2	14,7	14,0	13,0	11,8					
100-250/55	5,5	227		•	72,4	17,7		17,5	17,4	17,3	16,9	16,3	15,5	14,4	13,1				
100-250/75	7,5	241		•	73,6	20,0		19,8	19,8	19,6	19,4	18,9	18,2	17,2	16,1	14,8			
100-250/110	11	259	•		74,7	23,3			23,0	22,9	22,7	22,3	21,8	21,0	20,0	18,8	17,5	16,0	

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

LNT-80-100_4p505-en_a_th

(1) Medium diameter of full impeller (2) Medium diameter of trimmed impeller (3) Hydraulic efficiency of pump.

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

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	η _p % (3)	Q = DELIVERY												
						l/s	5	12,53	20,16	27,8	35,43	43,07	50,71	58,34	65,98	73,62	81,253	89
						m ³ /h	0	18	45	73	100	128	155	183	210	238	265	293
H = TOTAL HEAD METRES COLUMN OF WATER																		
125-160/22	2,2	148		•	64,1	6,2	6,2	6,0	5,4	4,1	2,1							
125-160/30	3	167		•	68,9	8,4		8,3	7,7	6,4	4,6							
125-160/40	4	184	•		73,5	10,3		10,2	9,6	8,6	6,8	4,3						
125-200/55	5,5	202		•	73,4	13,0		12,8	12,3	11,2	9,5	7,0						
125-200/75	7,5	227	•		77,4	17,0		16,7	16,3	15,4	14,0	11,9	9,2					
125-250/75	7,5	230		•	75,5	17,2		17,1	16,6	15,5	13,7	11,2	7,7					
125-250/110	11	259	•		77,1	21,9		21,9	21,4	20,4	18,8	16,6	13,7					
125-315/150	15	276		•	75,4	25,9		25,8	25,3	24,5	23,3	21,7	19,6	17,0	13,5	9,1		
125-315/185	18,5	291		•	75,8	28,9		28,7	28,3	27,5	26,5	25,0	23,1	20,6	17,5	13,6		
125-315/220	22	308		•	76,1	32,7		32,5	32,1	31,4	30,4	29,1	27,3	25,1	22,3	18,9	14,9	
125-315/300	30	334	•		77,0	39,2		38,8	38,5	37,9	37,1	36,0	34,4	32,5	30,0	27,1	23,5	19,4

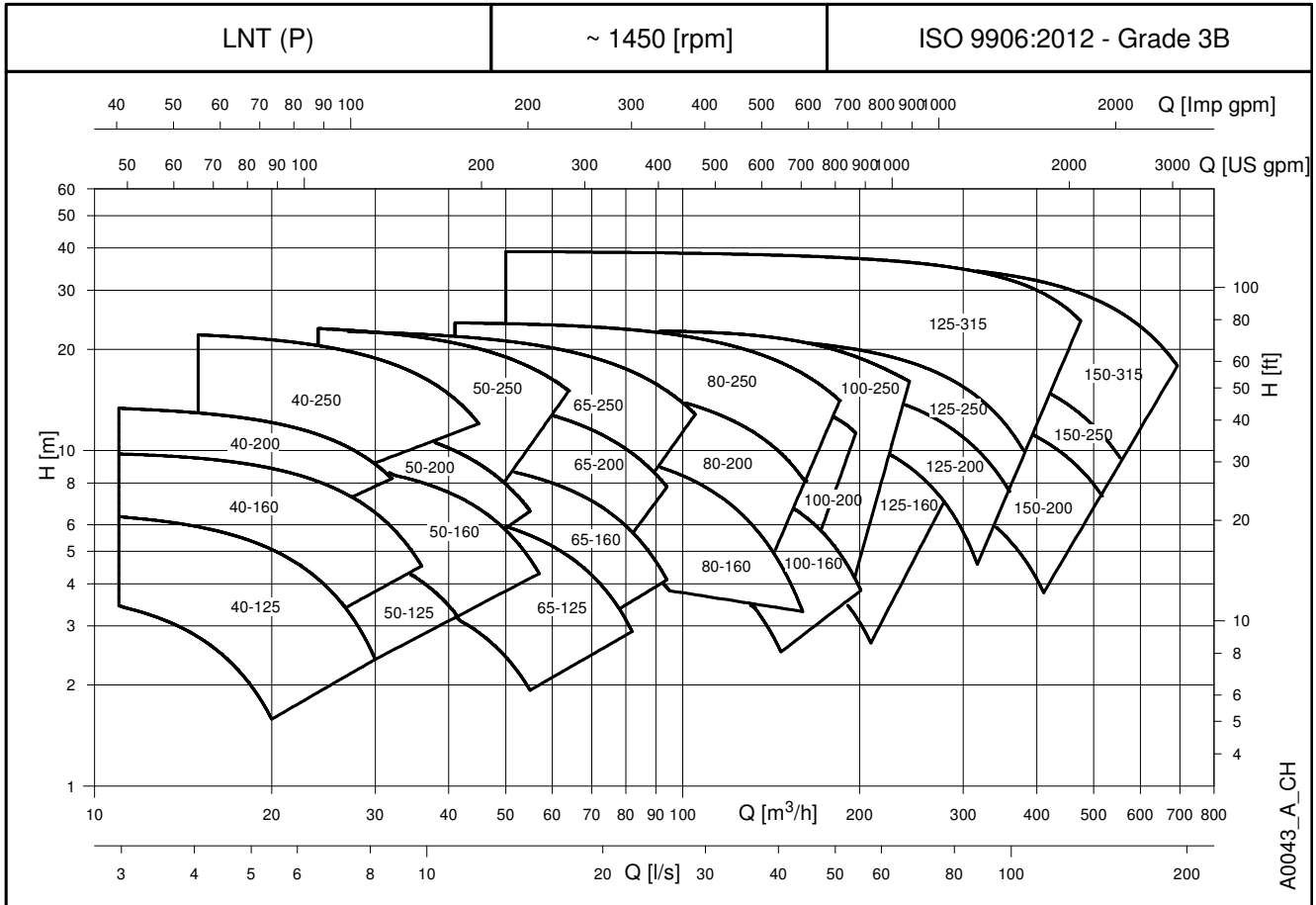
PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	η _p % (3)	Q = DELIVERY												
						l/s	10	18,99	28,06	37,14	46,21	55,28	64,36	73,43	82,5	91,58	100,65	110
						m ³ /h	0	36	68	101	134	166	199	232	264	297	330	362
H = TOTAL HEAD METRES COLUMN OF WATER																		
150-200/55	5,5	175		•	68,8	9,3	9,3	9,2	8,7	7,9	6,8	5,7	3,9					
150-200/75	7,5	195		•	70,6	11,9		11,7	11,2	10,5	9,5	8,2	6,6	4,9				
150-200/110	11	220	•		76,9	15,5		15,0	14,7	14,2	13,4	12,3	10,9	9,1	7,1			
150-250/110	11	225		•	76,5	16,2		16,2	16,0	15,4	14,4	13,0	11,3	9,4	7,1			
150-250/150	15	249	•		78,8	20,4		20,3	20,0	19,5	18,7	17,6	16,1	14,2	11,9	9,4		
150-315/185	18,5	272		•	76,2	25,2		25,1	24,7	24,0	23,0	21,6	19,7	17,3	14,4	10,8		
150-315/220	22	285		•	77,1	28,1		28,1	27,8	27,2	26,2	24,8	23,0	20,8	18,2	14,9		
150-315/300	30	308		•	79,3	33,1		33,1	33,0	32,5	31,7	30,4	28,8	26,8	24,4	21,7	18,3	
150-315/370	37	322	•		79,5	36,5		36,3	36,2	35,9	35,2	34,2	32,7	30,8	28,5	25,8	22,8	19,8

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

LNT-125-150_4p50s-en_a_th

(1) Medium diameter of full impeller (2) Medium diameter of trimmed impeller (3) Hydraulic efficiency of pump.

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



e-LNT 40, 50, 65 SERIES (PARALLEL OPERATION) HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	Q = DELIVERY												
					0	2,1	3,0	4,0	4,9	5,9	6,8	7,8	8,7	9,7	10,6	11,6	12,5
					m ³ /h	7	11	14	18	21	24	28	31	35	38	42	45
H = TOTAL HEAD METRES COLUMN OF WATER																	
40-125/02B	0,25	113		•	3,8	3,8	3,5	2,9	2,2								
40-125/02A	0,25	123		•	4,5		4,3	3,8	3,2	2,3							
40-125/02	0,25	133		•	5,4		5,2	4,8	4,2	3,4	2,5						
40-125/03	0,37	145	•		6,4		6,3	6,0	5,5	4,8	4,0	3,0					
40-160/03	0,37	150		•	7,4		7,3	7,0	6,5	5,9	5,0	4,0					
40-160/05	0,55	161		•	8,5		8,5	8,2	7,8	7,2	6,5	5,5	4,4				
40-160/07	0,8	171	•		9,7			9,5	9,2	8,7	8,0	7,1	6,1	5,0			
40-200/05	0,55	171		•	9,5		8,9	8,4	7,8	6,8	5,6						
40-200/07	0,75	186		•	11,3		10,7	10,4	9,8	9,0	7,9	6,6					
40-200/11	1,1	205	•		14,0		13,3	13,0	12,5	11,9	11,0	9,9	8,5				
40-250/11	1,1	226		•	16,7			16,3	15,8	15,1	14,1	13,0	11,6	10,0			
40-250/15A	1,5	226		•	16,7			16,3	15,8	15,1	14,1	13,0	11,6	10,0			
40-250/15	1,5	239		•	18,8			18,5	18,0	17,4	16,5	15,5	14,2	12,8			
40-250/22	2,2	259	•		22,4				21,7	21,1	20,4	19,5	18,4	17,1	15,6	13,9	12,0

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	Q = DELIVERY												
					0	2,7	4,1	5,4	6,8	8,2	9,6	10,9	12,3	13,7	15,0	16,4	17,8
					m ³ /h	10	15	20	25	29	34	39	44	49	54	59	64
H = TOTAL HEAD METRES COLUMN OF WATER																	
50-125/02A	0,25	105		•	3,5	3,2	3,0	2,6	2,1								
50-125/02	0,25	118		•	4,4		3,9	3,6	3,2	2,5							
50-125/03	0,37	130		•	5,4		4,8	4,6	4,2	3,7	3,0						
50-125/05	0,55	135	•		6,4			5,6	5,3	4,9	4,3	3,6					
50-160/05	0,55	139		•	6,9		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	7,3	6,7	6,0	5,2	4,2			
50-160/11	1,1	165	•		9,9			9,3	9,1	8,7	8,2	7,6	6,8	5,9	4,9		
50-200/11A	1,1	179		•	10,7				9,6	8,9	8,1	7,1	5,9				
50-200/11	1,1	189		•	12,1				11,0	10,4	9,6	8,7	7,6	6,4			
50-200/15	1,5	199	•		13,5				12,5	11,9	11,1	10,3	9,3	8,1	6,8		
50-250/15	1,5	210		•	15,5		14,9	14,5	13,8	13,0	11,9	10,7	9,3				
50-250/22A	2,2	228		•	18,4				17,5	17,0	16,2	15,3	14,2	12,9	11,5		
50-250/22	2,2	243		•	21,1				20,3	19,8	19,1	18,3	17,2	16,1	14,8		
50-250/30	3	258	•		23,8				23,0	22,5	21,9	21,1	20,2	19,1	17,9	16,5	15,0

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	Q = DELIVERY												
					0	4,625	7	9,087	11,32	13,55	15,78	18,01	20,24	22,47	24,7	26,936	29,167
					m ³ /h	17	25	33	41	49	57	65	73	81	89	97	105
H = TOTAL HEAD METRES COLUMN OF WATER																	
65-125/03	0,37	118		•	4,7	4,3	4,0	3,7	3,2	2,5							
65-125/05	0,55	130		•	5,6		4,9	4,6	4,2	3,6	2,9						
65-125/07	0,75	144		•	6,9		6,2	5,9	5,5	5,0	4,4	3,6	2,7				
65-125/11	1,1	148	•		7,9		7,1	6,8	6,5	6,0	5,4	4,8	3,9	3,0			
65-160/11A	1,1	159		•	8,4		7,5	7,2	6,8	6,3	5,7	4,8	3,9				
65-160/11	1,1	170		•	9,6		8,7	8,4	8,0	7,5	6,9	6,2	5,3	4,3			
65-160/15	1,5	176	•		10,8			9,6	9,2	8,8	8,2	7,6	6,8	5,8	4,8		
65-200/15	1,5	179		•	11,1		10,8	10,4	9,8	9,1	8,2	7,1	5,9				
65-200/22A	2,2	197		•	13,5		13,3	13,0	12,5	11,8	11,0	10,1	9,0	7,7			
65-200/22	2,2	209	•		15,3			14,8	14,4	13,8	13,0	12,2	11,1	10,0	8,7		
65-250/22	2,2	220		•	16,8		16,3	15,9	15,4	14,6	13,7	12,6	11,3	9,9			
65-250/30	3	232		•	18,8		18,3	17,9	17,4	16,7	15,9	14,9	13,7	12,3	10,8		
65-250/40	4	256	•		23,1			22,3	21,9	21,3	20,5	19,6	18,6	17,3	16,0	14,4	12,8

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

LNT-40-50-65_4p50P-en_a_th

(1) Medium diameter of full impeller (2) Medium diameter of trimmed impeller.

e-LNT 80, 100 SERIES (PARALLEL OPERATION) HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	Q = DELIVERY												
					l/s	7	11,25	15,26	19,28	23,29	27,3	31,32	35,33	39,35	43,36	47,375	51
					0	26	40	55	69	84	98	113	127	142	156	171	185
					H = TOTAL HEAD METRES COLUMN OF WATER												
80-160/11A	1,1	145		•	7,2	6,8	6,6	6,2	5,5	4,6	3,6						
80-160/15B	1,5	145		•	7,2	6,8	6,6	6,2	5,5	4,6	3,6						
80-160/11	1,1	151		•	7,9		7,2	6,8	6,2	5,4	4,4						
80-160/15A	1,5	151		•	7,9		7,2	6,8	6,2	5,4	4,4						
80-160/15	1,5	159		•	8,8		8,1	7,7	7,2	6,5	5,5	4,3					
80-160/22A	2,2	175		•	10,7		10,0	9,7	9,2	8,6	7,8	6,7	5,5				
80-160/22	2,2	180	•		11,3		10,6	10,3	9,9	9,3	8,5	7,5	6,3				
80-200/22	2,2	189		•	12,3		12,0	11,4	10,8	9,9	8,8	7,6					
80-200/30	3	199		•	13,7		13,4	12,9	12,3	11,4	10,5	9,3	7,9				
80-200/40	4	220	•		16,9		16,7	16,3	15,7	14,9	14,0	13,0	11,8	10,4	8,7		
80-250/55A	5,5	229		•	18,6		18,6	18,3	17,8	17,1	16,2	15,1	13,9	12,4	10,8		
80-250/55	5,5	243		•	21,0		21,1	20,8	20,4	19,8	19,0	18,0	16,8	15,4	13,9	12,2	
80-250/75	7,5	258	•		23,8			23,7	23,3	22,8	22,0	21,1	20,0	18,8	17,3	15,8	14,1

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	Q = DELIVERY												
					l/s	12	17,25	22,28	27,3	32,33	37,35	42,38	47,4	52,43	57,45	62,475	68
					0	44	62	80	98	116	134	153	171	189	207	225	243
					H = TOTAL HEAD METRES COLUMN OF WATER												
100-160/15	1,5	144		•	6,7	5,9	5,7	5,4	4,9	4,2	3,3						
100-160/22A	2,2	158		•	8,2		7,1	6,8	6,4	5,9	5,1	4,1					
100-160/22	2,2	168		•	9,3		8,1	7,9	7,5	7,0	6,4	5,5	4,4				
100-160/30	3	177	•		10,4		9,1	8,9	8,6	8,1	7,6	6,8	5,8	4,7			
100-200/30	3	181		•	10,9		10,5	10,2	9,8	9,3	8,5	7,1					
100-200/40	4	195		•	12,8		12,3	12,1	11,8	11,3	10,7	9,8	8,3				
100-200/55A	5,5	208		•	14,6		14,1	13,9	13,6	13,2	12,7	12,0	11,1				
100-200/55	5,5	219	•		16,3			15,6	15,3	15,0	14,5	13,9	13,1	12,0			
100-250/55A	5,5	214		•	16,0		15,2	15,1	14,9	14,3	13,5	12,5	11,5				
100-250/55	5,5	227		•	18,1		17,2	17,2	17,0	16,5	15,9	15,0	13,9	12,8			
100-250/75	7,5	241		•	20,5		19,6	19,5	19,3	19,0	18,5	17,7	16,7	15,6	14,5		
100-250/110	11	259	•		23,9			22,7	22,6	22,4	21,9	21,3	20,5	19,5	18,4	17,2	16,0

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

LNT-80-100_4p50P-en_a_th

(1) Medium diameter of full impeller (2) Medium diameter of trimmed impeller.

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

PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	Q = DELIVERY												
					l/s	9	20,58	31,72	42,85	53,99	65,13	76,26	87,4	98,54	109,7	120,81	132
					m ³ /h	34	74	114	154	194	234	275	315	355	395	435	475
H = TOTAL HEAD METRES COLUMN OF WATER																	
125-160/22	2,2	148		•	6,1	6,0	6,0	5,7	4,8	3,6							
125-160/30	3	167		•	8,4		8,3	8,0	7,2	5,9	4,3						
125-160/40	4	184	•		10,4		10,3	10,0	9,3	8,2	6,6						
125-200/55	5,5	202		•	13,1		12,8	12,5	11,9	10,9	9,3	7,3	4,7				
125-200/75	7,5	227	•		17,0		16,8	16,5	16,0	15,1	13,8	12,1	10,2	8,1			
125-250/75	7,5	230		•	17,2		17,1	16,7	16,0	14,8	13,2	11,2	8,8				
125-250/110	11	259	•		21,9		21,9	21,6	21,0	19,9	18,5	16,6	14,4				
125-315/150	15	276		•	25,9		25,8	25,4	24,8	23,9	22,8	21,2	19,3	17,0	14,0		
125-315/185	18,5	291		•	28,9		28,6	28,3	27,8	27,0	26,0	24,5	22,7	20,4	17,6		
125-315/220	22	308		•	32,6		32,3	31,9	31,4	30,7	29,7	28,4	26,8	24,8	22,5	19,8	
125-315/300	30	334	•		39,3		38,8	38,5	38,0	37,4	36,6	35,5	34,1	32,3	30,3	27,9	25,2

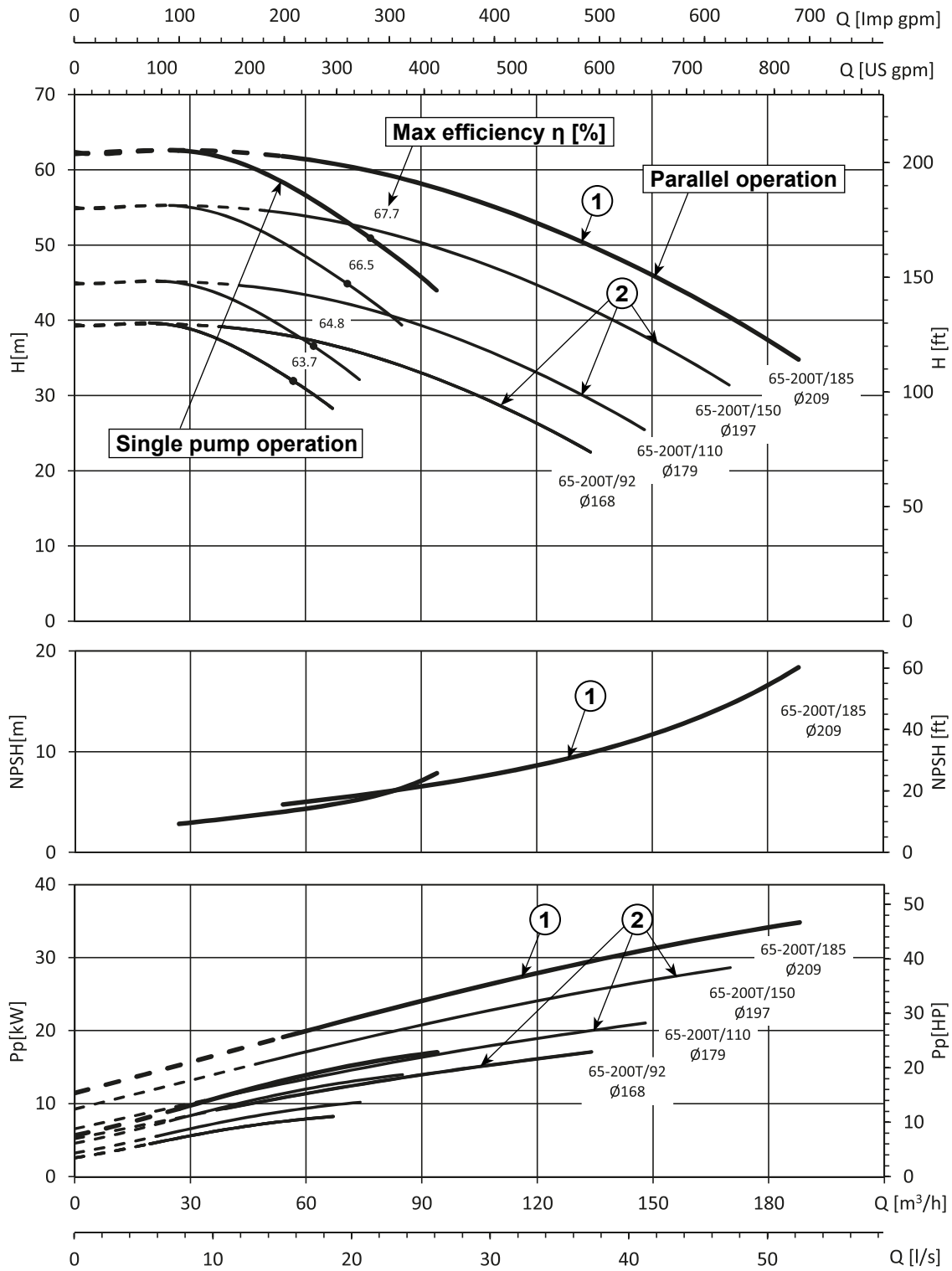
PUMP TYPE	P _N kW	Ø mm	F (1)	T (2)	Q = DELIVERY												
					l/s	20	36,09	51,76	67,42	83,09	98,76	114,4	130,1	145,8	161,4	177,11	193
					m ³ /h	74	130	186	243	299	356	412	468	525	581	638	694
H = TOTAL HEAD METRES COLUMN OF WATER																	
150-200/55	5,5	175		•	9,2	9,2	9,1	8,7	8,0	6,9	5,5						
150-200/75	7,5	195		•	12,0		11,6	11,1	10,4	9,5	8,2	6,6					
150-200/110	11	220	•		15,4		14,8	14,4	13,8	13,0	11,9	10,6	8,9	6,8			
150-250/110	11	225		•	16,4		16,0	15,6	15,0	13,9	12,5	10,7	8,6				
150-250/150	15	249	•		20,6		20,1	19,7	19,1	18,1	16,8	15,1	13,1	10,8			
150-315/185	18,5	272		•	25,3		25,1	24,6	23,7	22,4	20,8	18,7	16,3	13,6			
150-315/220	22	285		•	28,2		27,9	27,5	26,8	25,6	24,1	22,1	19,8	17,1	14,2		
150-315/300	30	308		•	33,1		32,9	32,6	32,0	31,0	29,6	27,8	25,7	23,1	20,4	17,5	
150-315/370	37	322	•		36,6		36,3	36,1	35,5	34,6	33,3	31,6	29,6	27,1	24,4	21,4	18,4

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

LNT-125-150_4p50P-en_a_th

(1) Medium diameter of full impeller (2) Medium diameter of trimmed impeller.

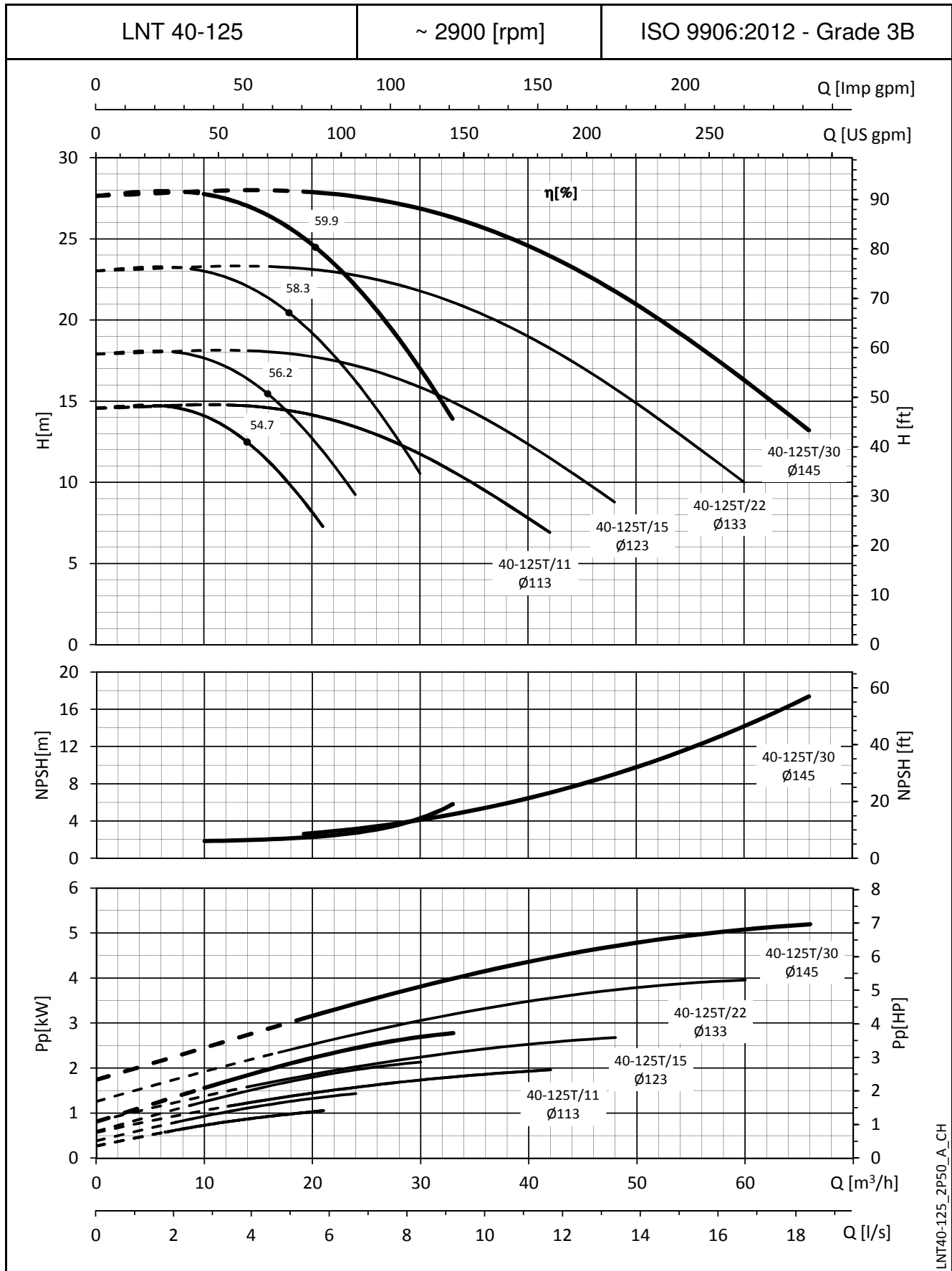
e-LNT SERIES
IDENTIFICATION OF GRAPH



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

e-LNT SERIES

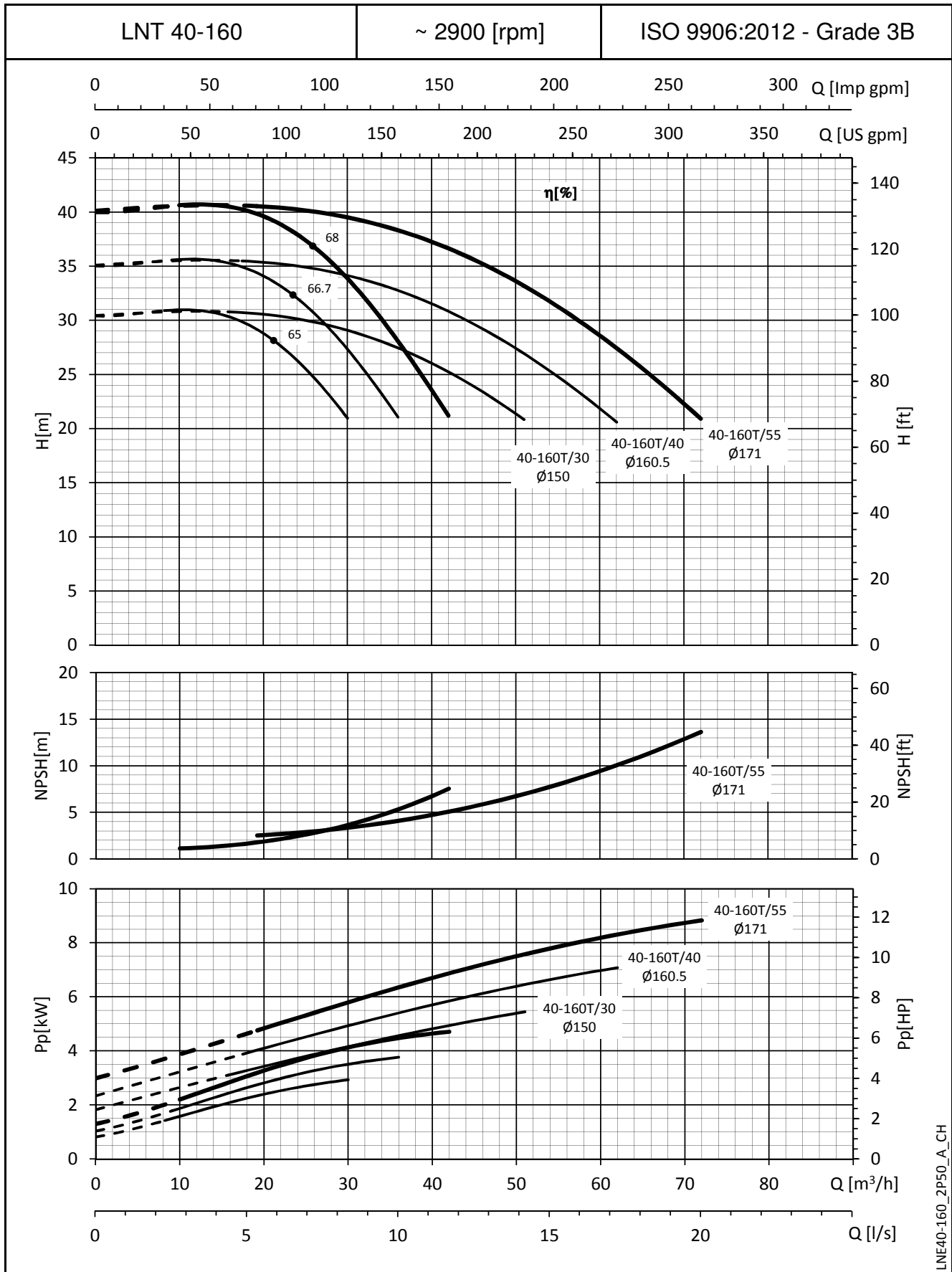
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



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

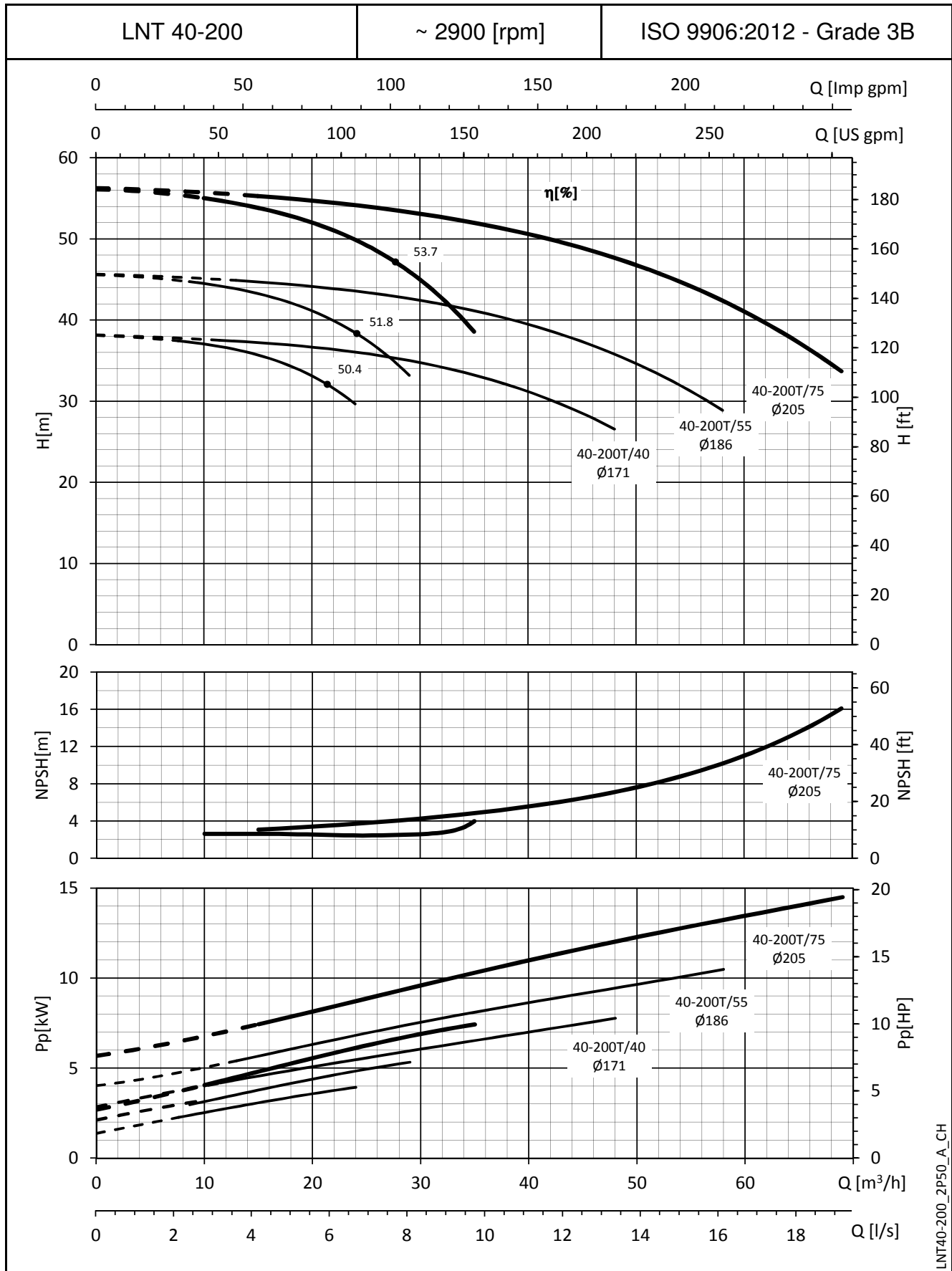
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



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

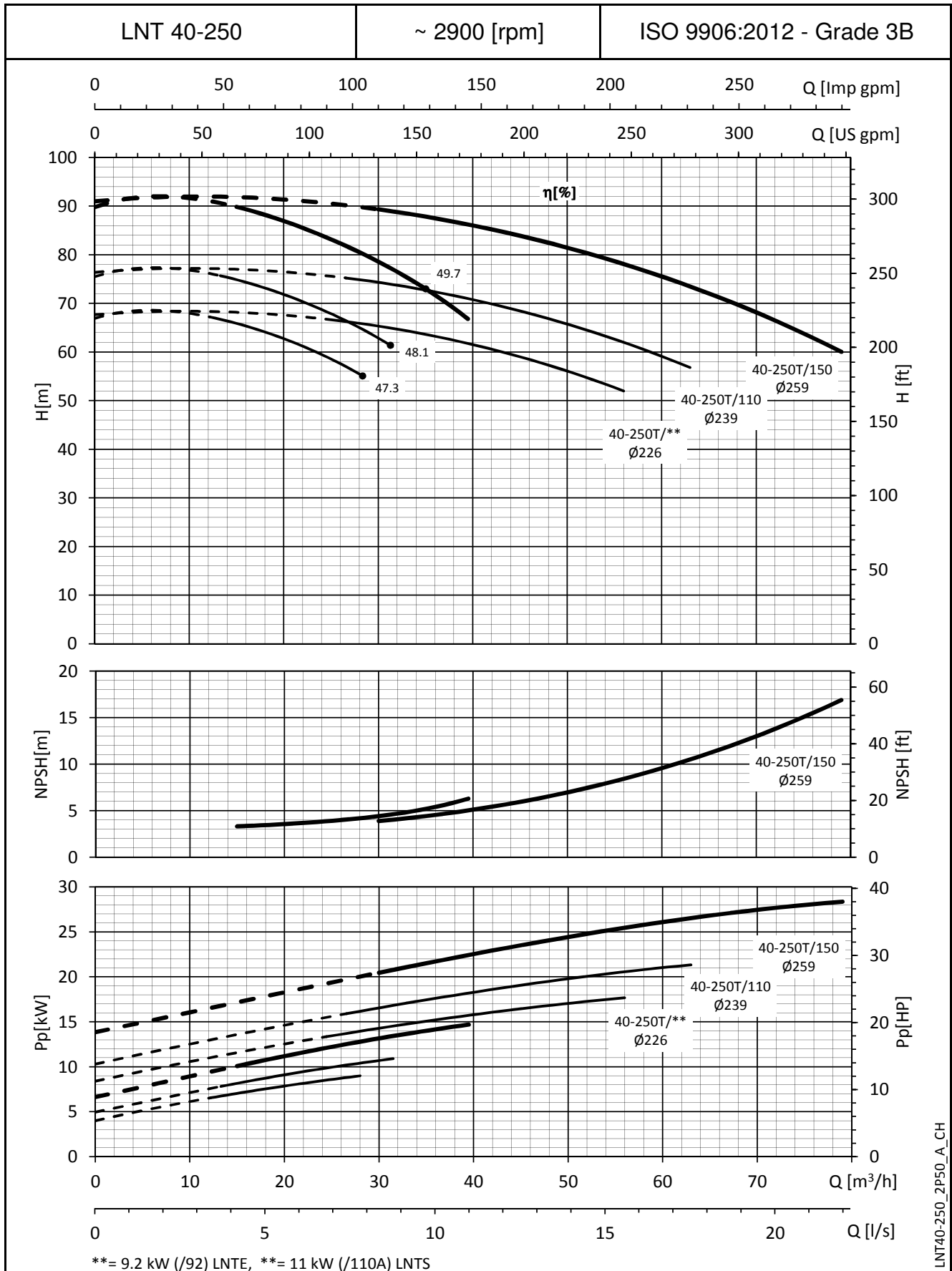


LNT40-200_2P50_A_CH

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

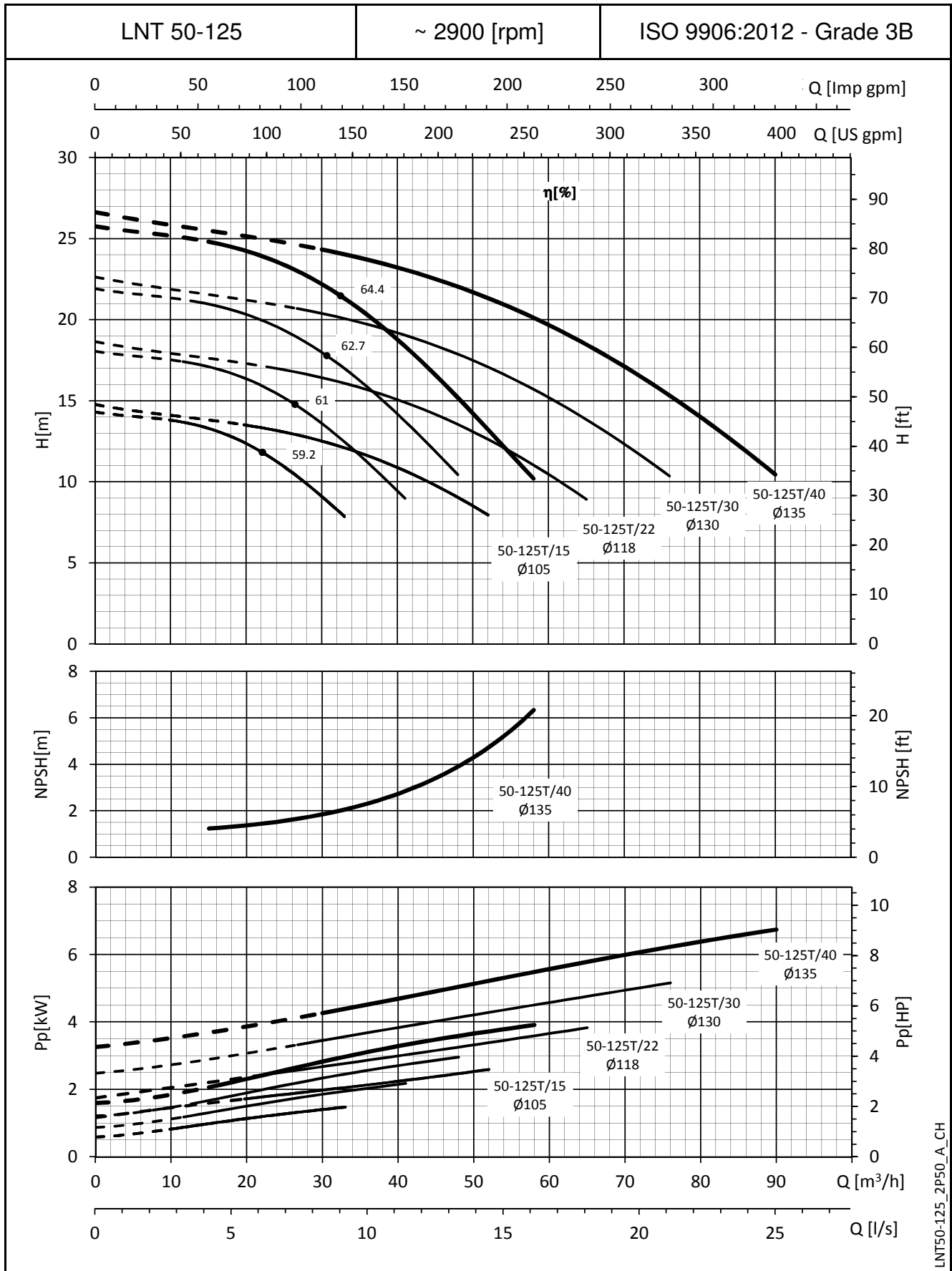


LNT40-250_2P50_A_CH

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

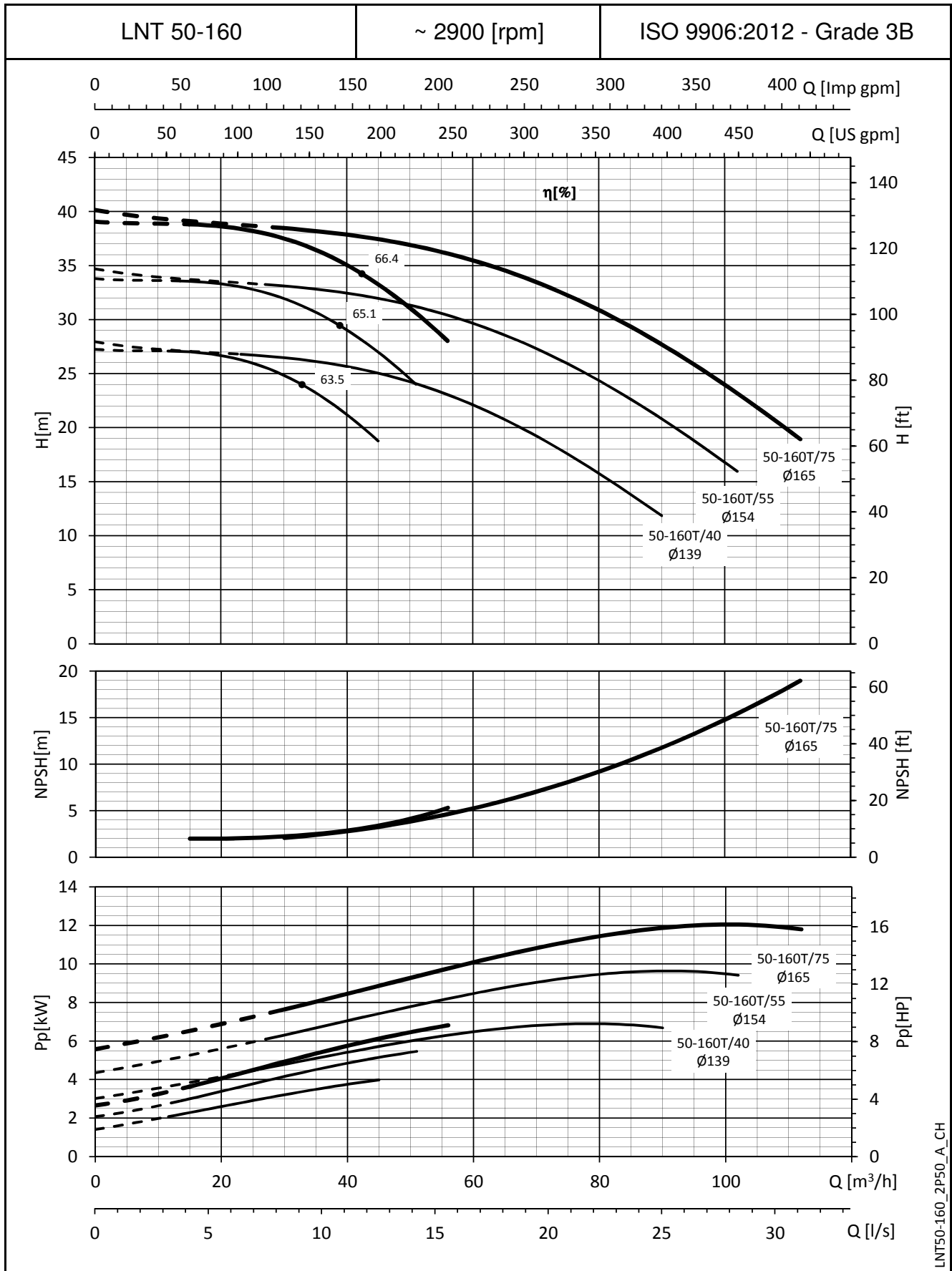
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



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

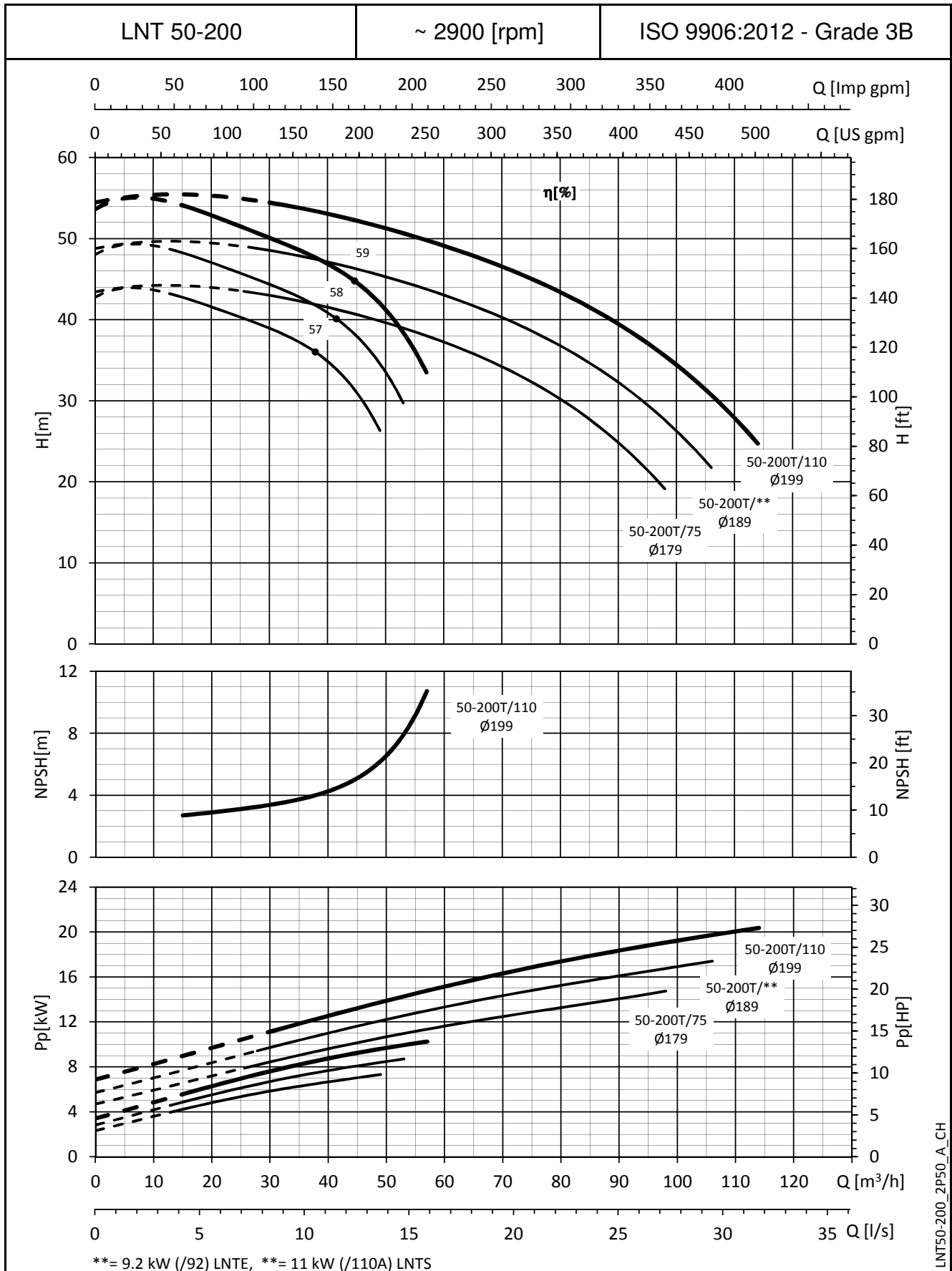


LNT50-160_2P50_A_CH

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

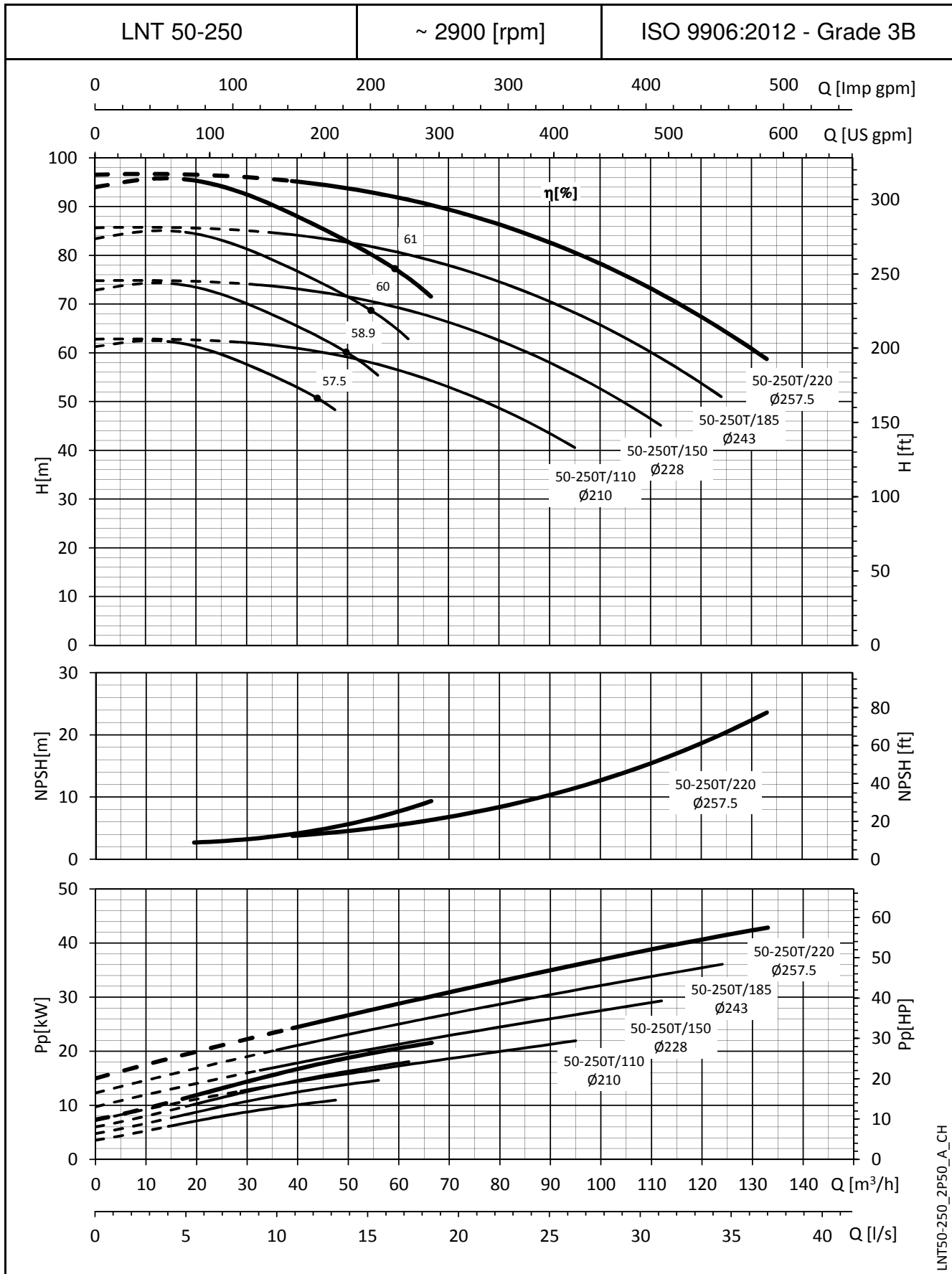
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



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

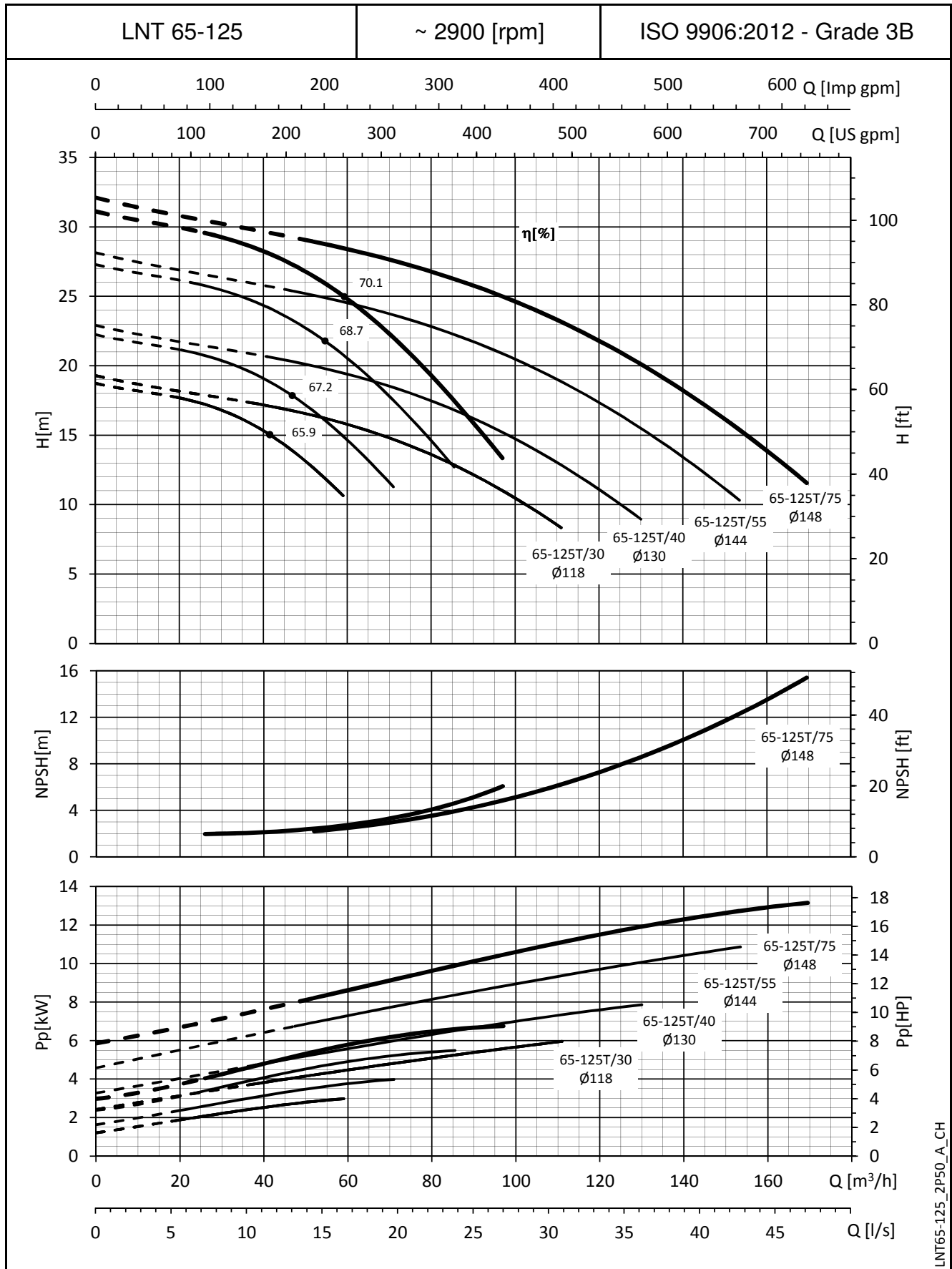


LNT50-250_2P50_A_CH

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

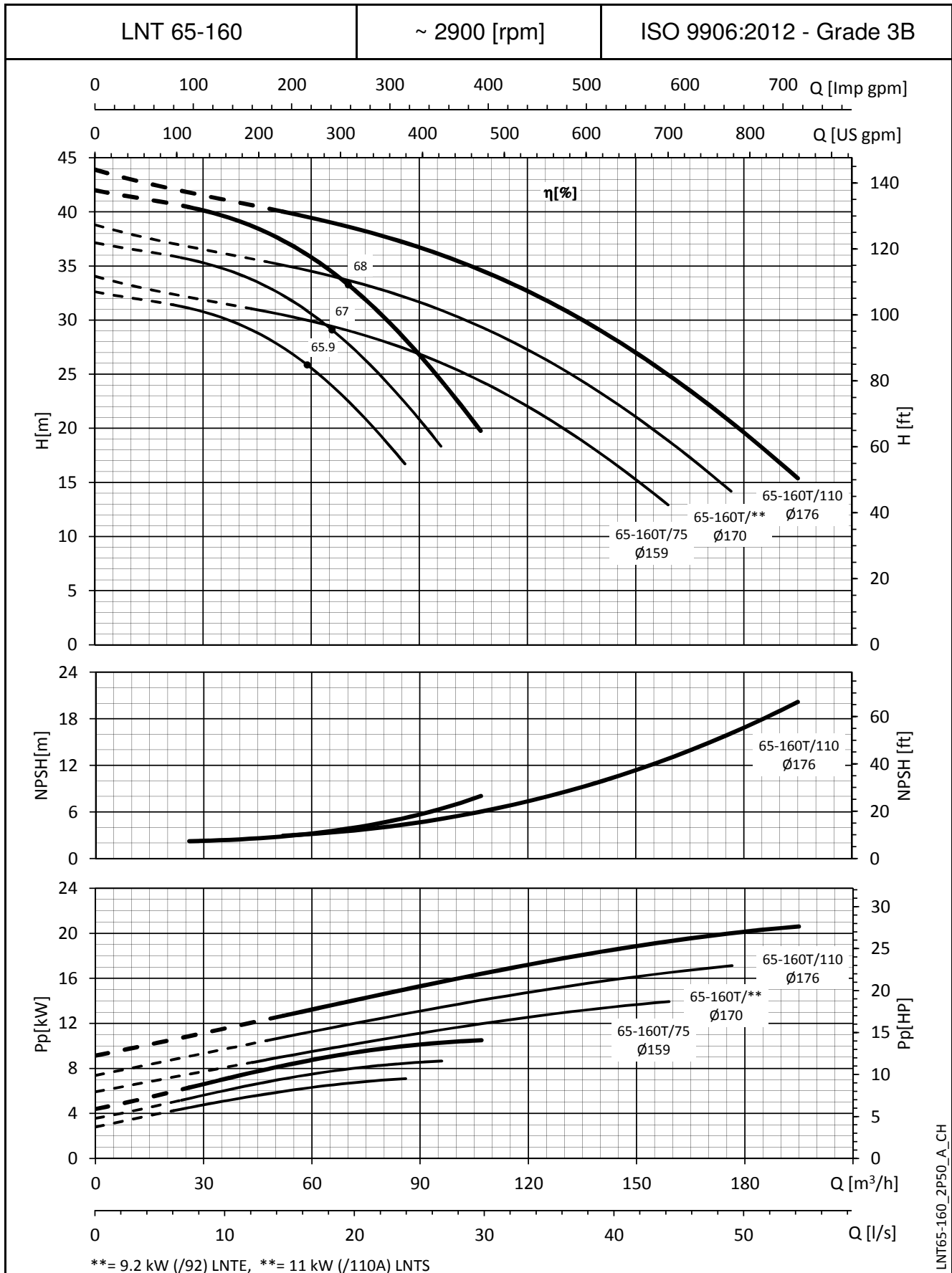


LNT65-125_2P50_A_CH

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

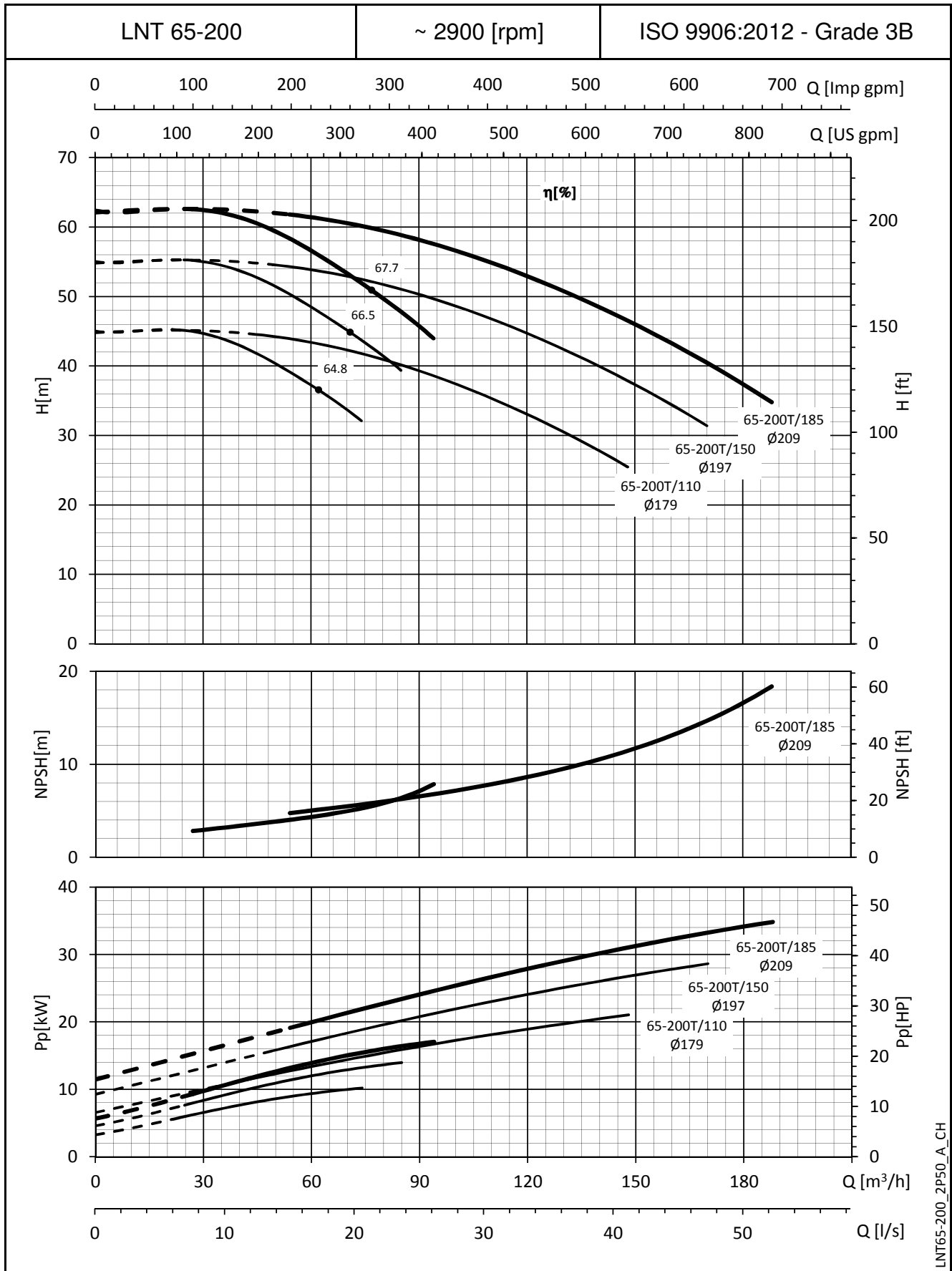


LNT65-160_2P50_A_CH

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

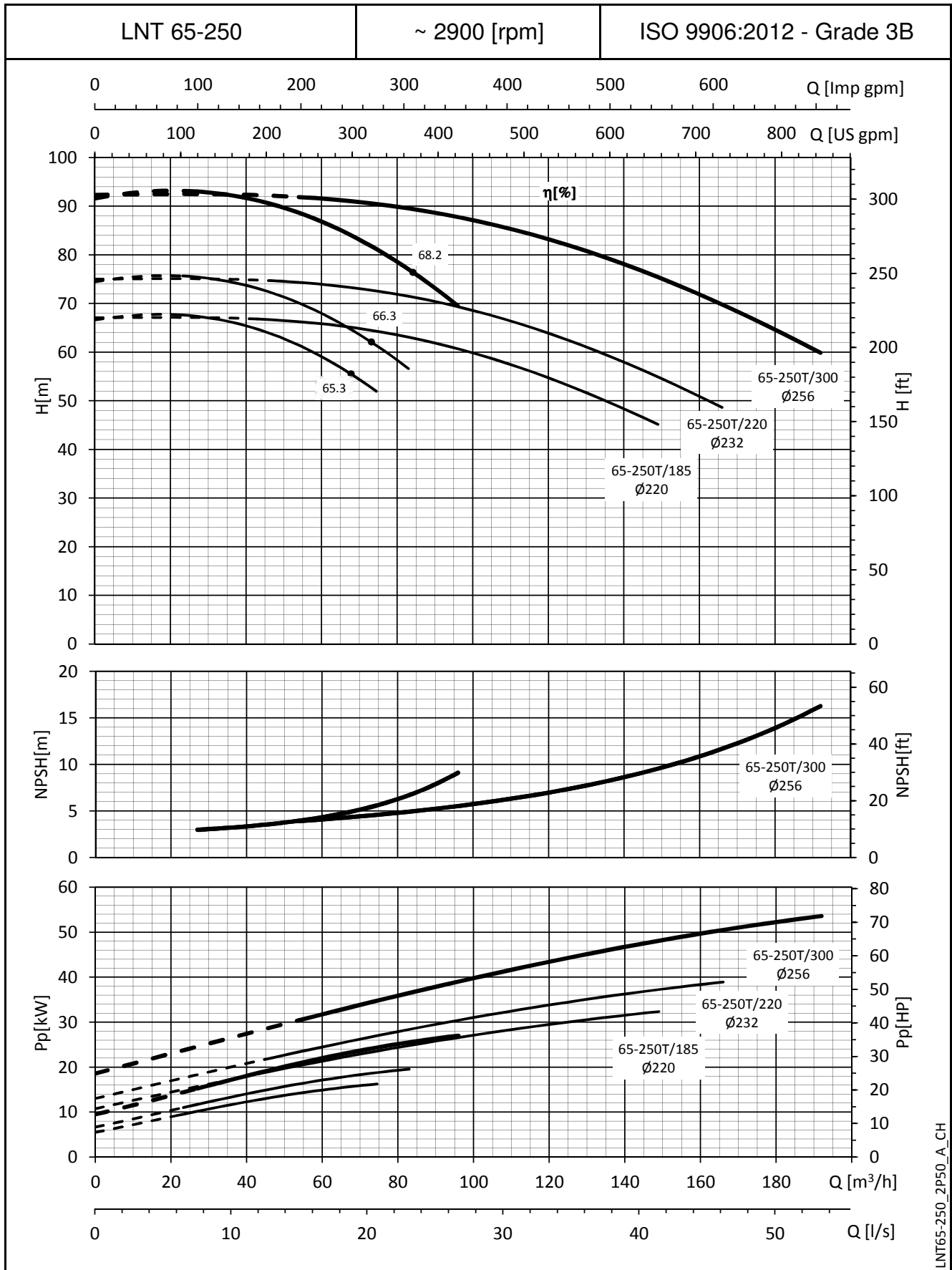
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



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

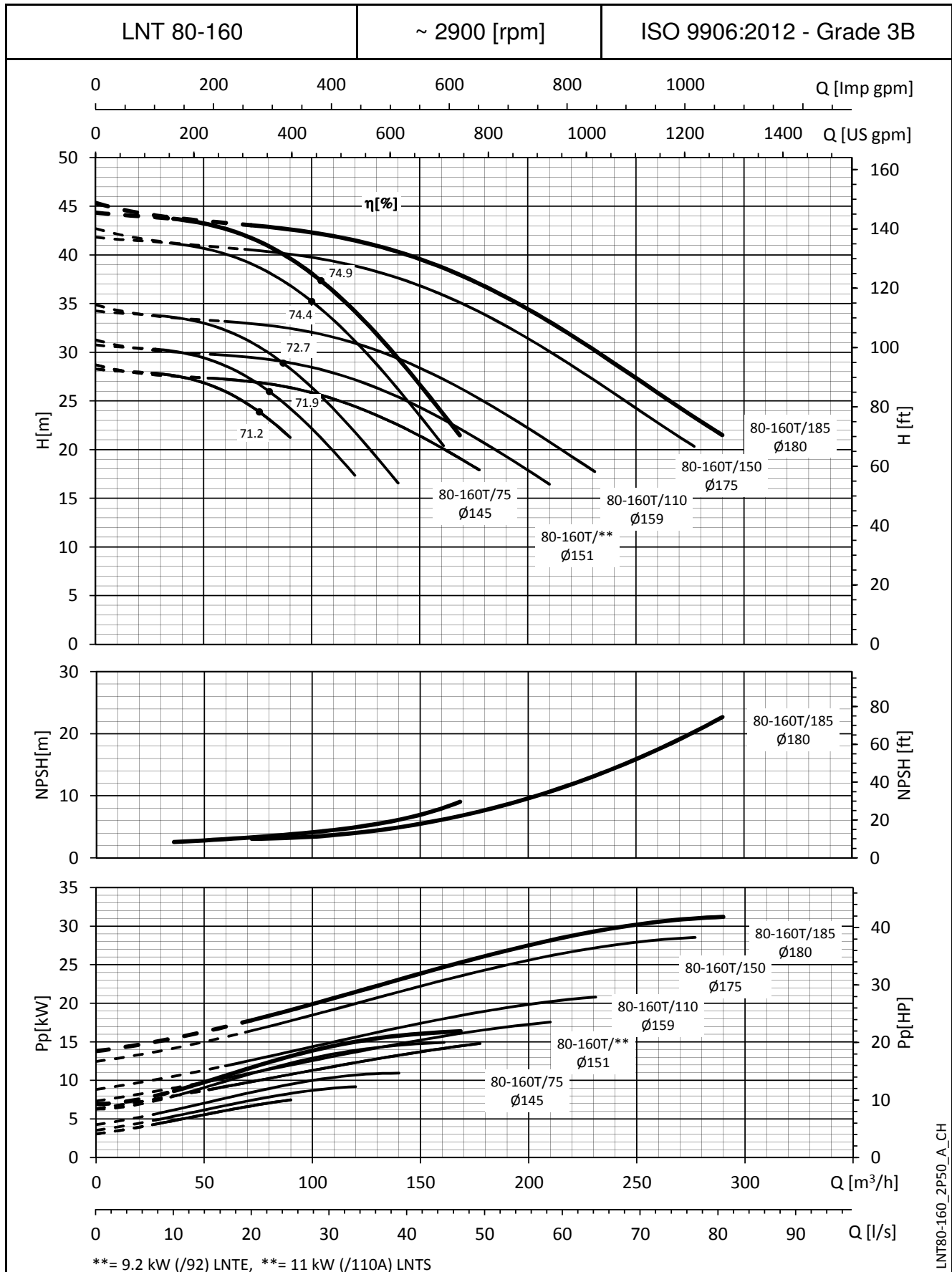


LNT65-250_2P50_A_CH

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

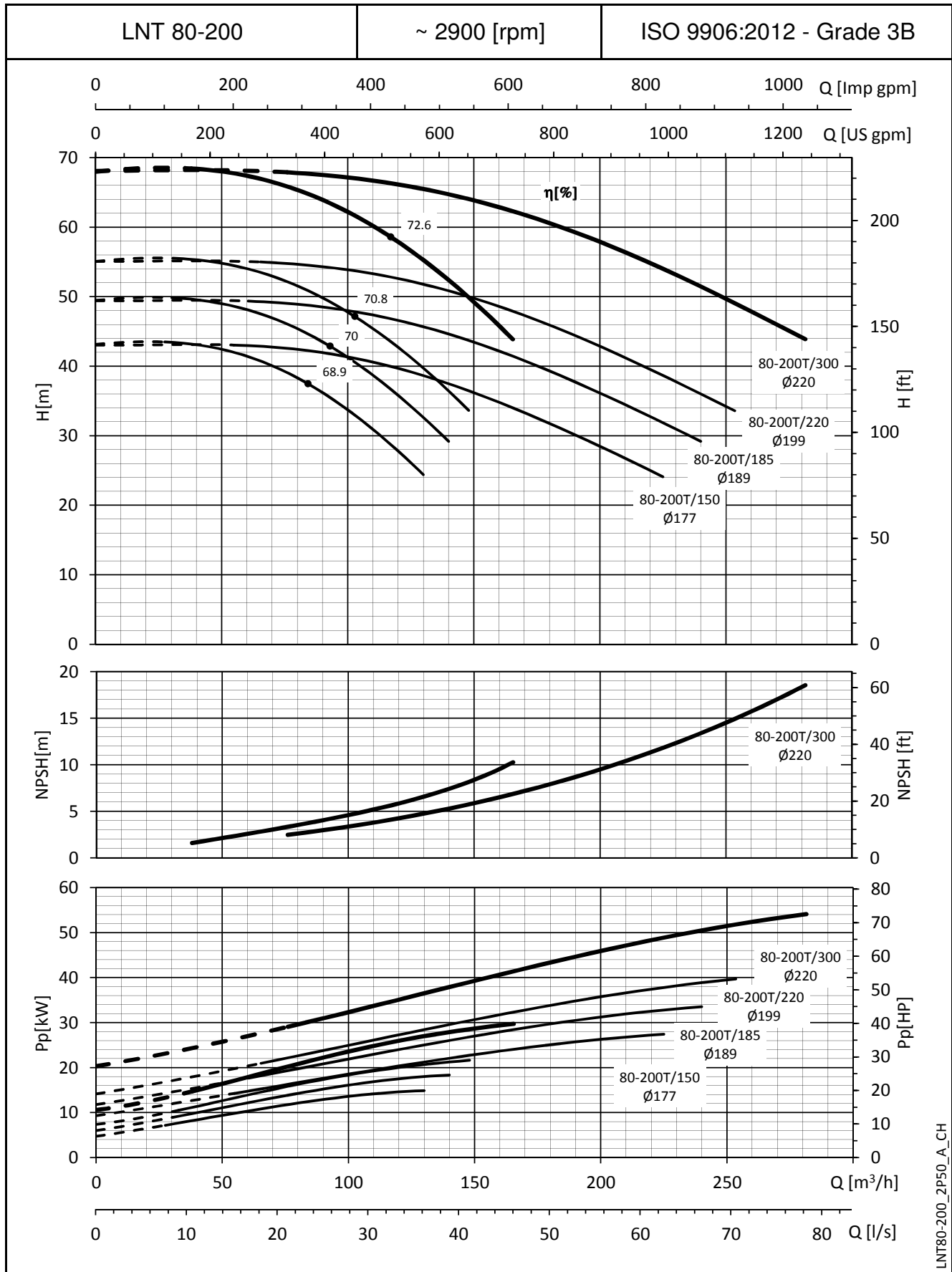


LNT80-160_2P50_A_CH

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

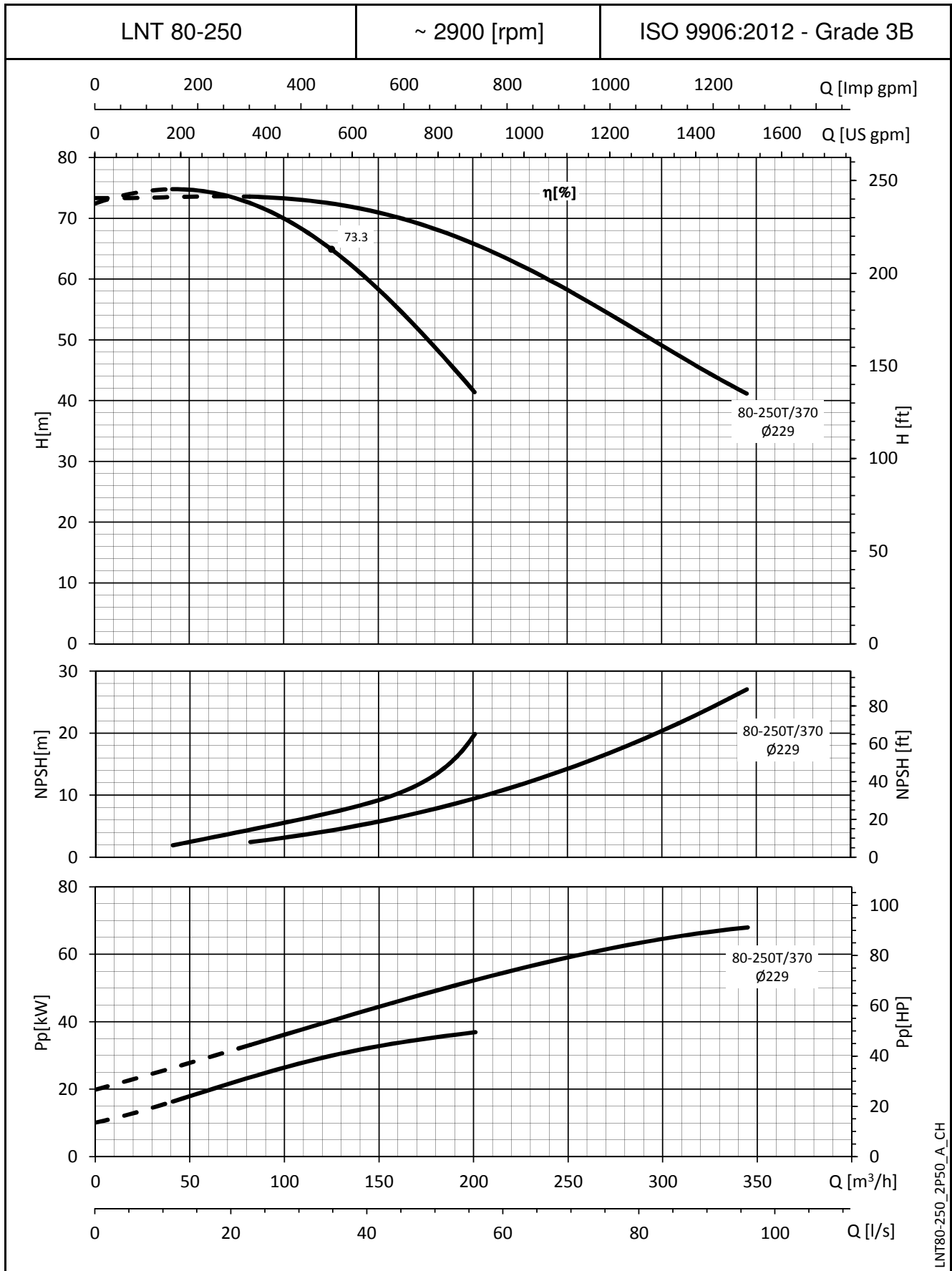
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



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

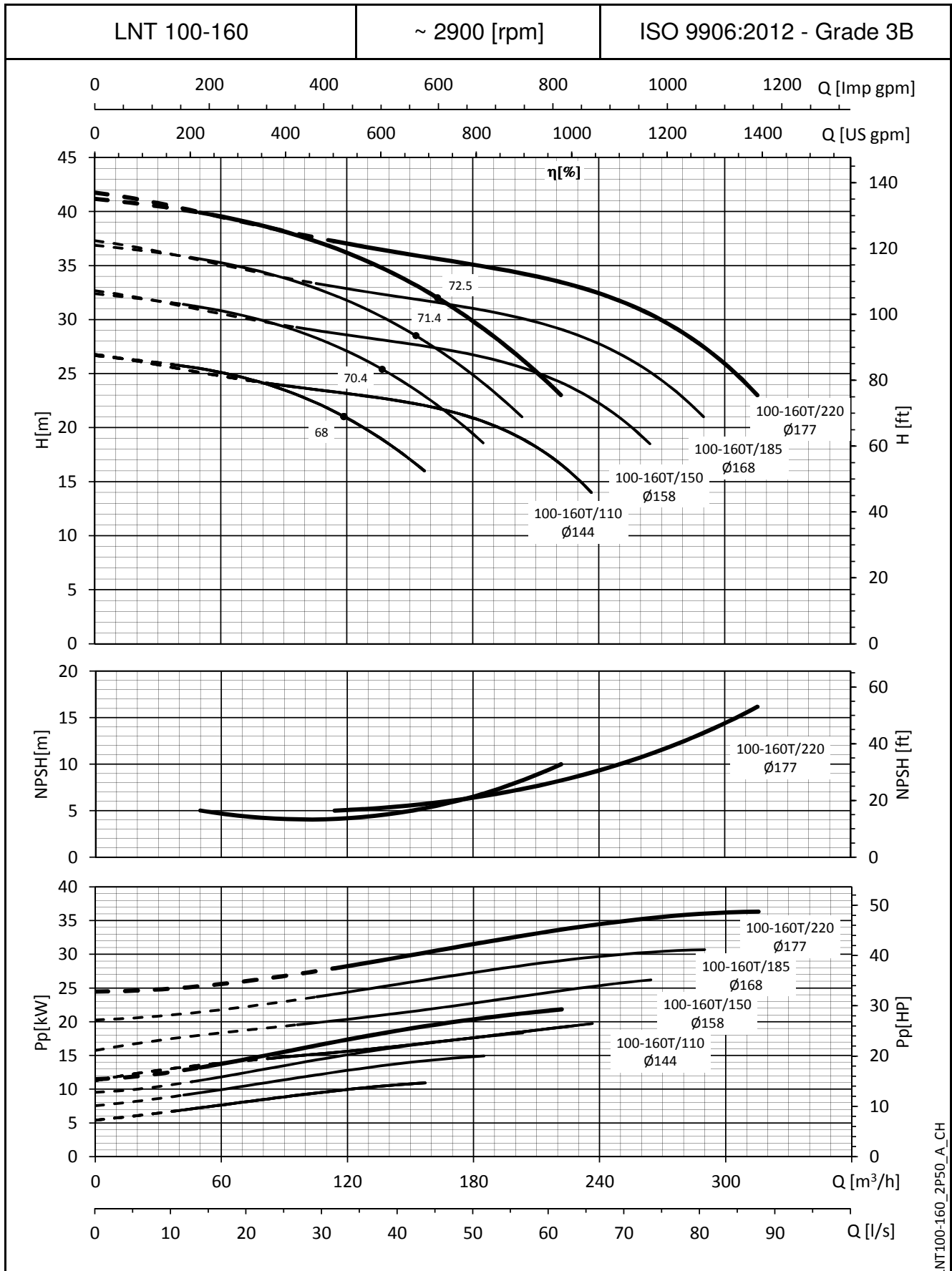


LNT80-250_2P50_A_CH

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

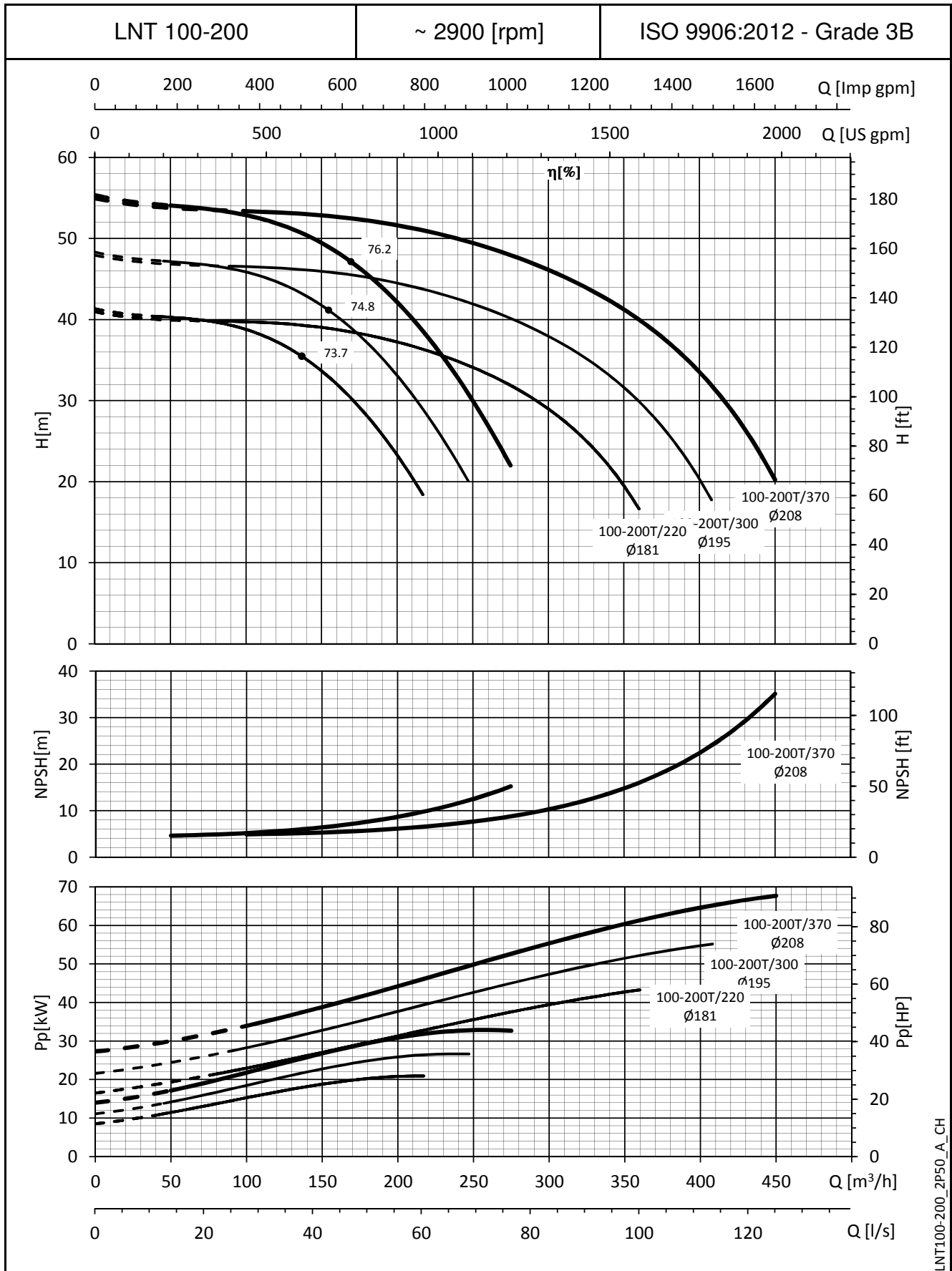
e-LNT SERIES

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

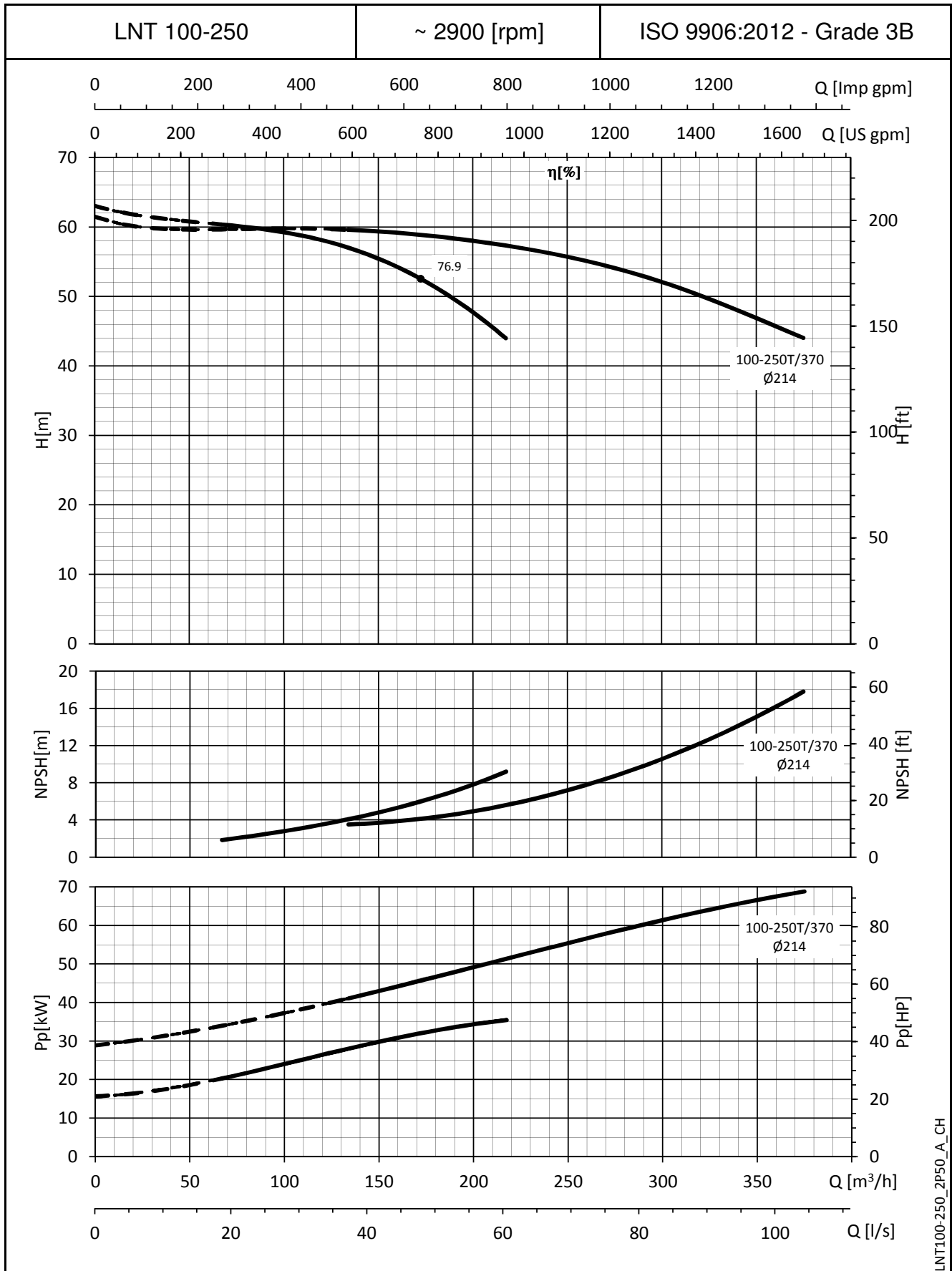
e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



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

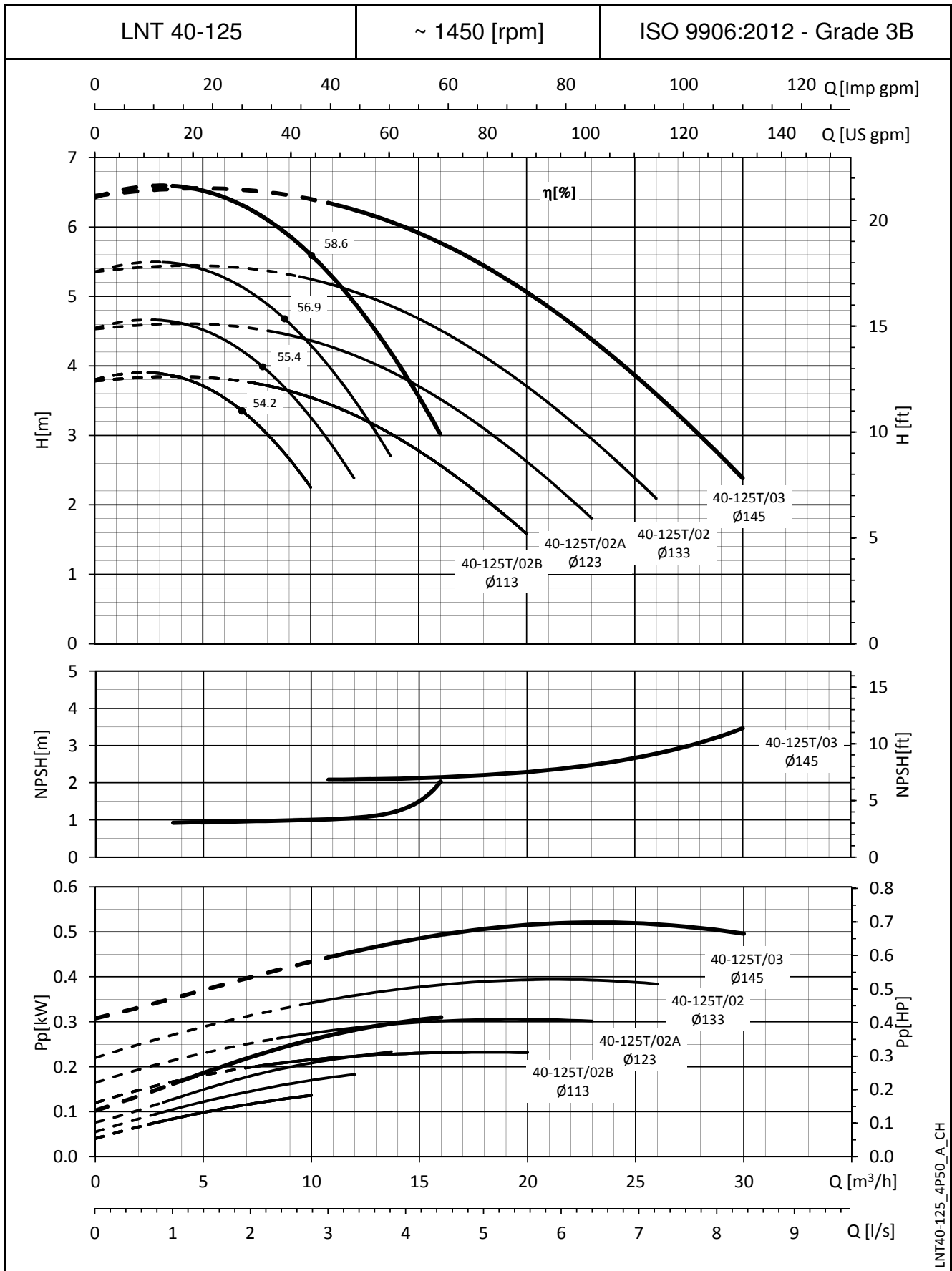


LNT100-250_2P50_A_CH

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

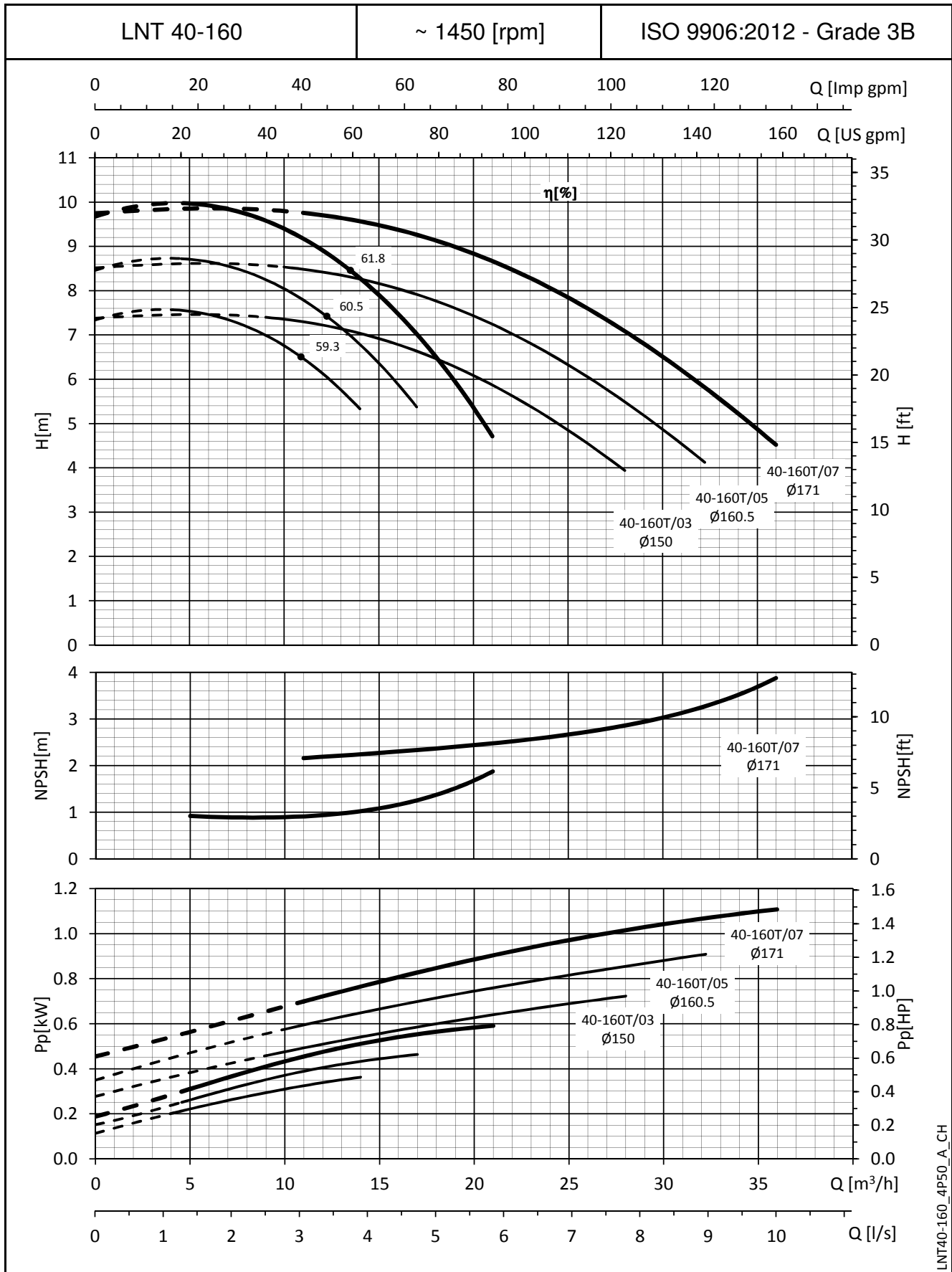


LNT40-125_4P50_A_CH

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

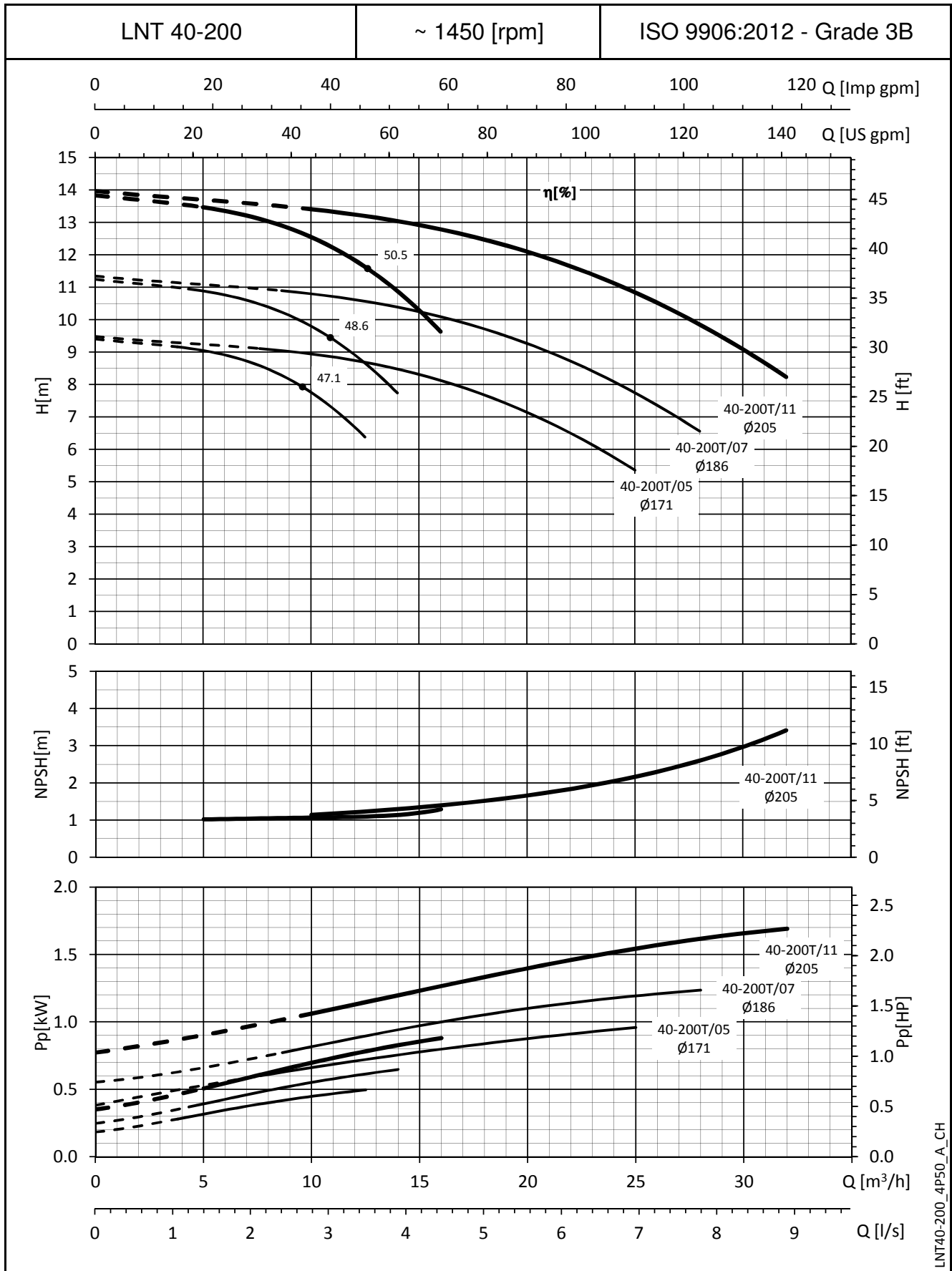
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

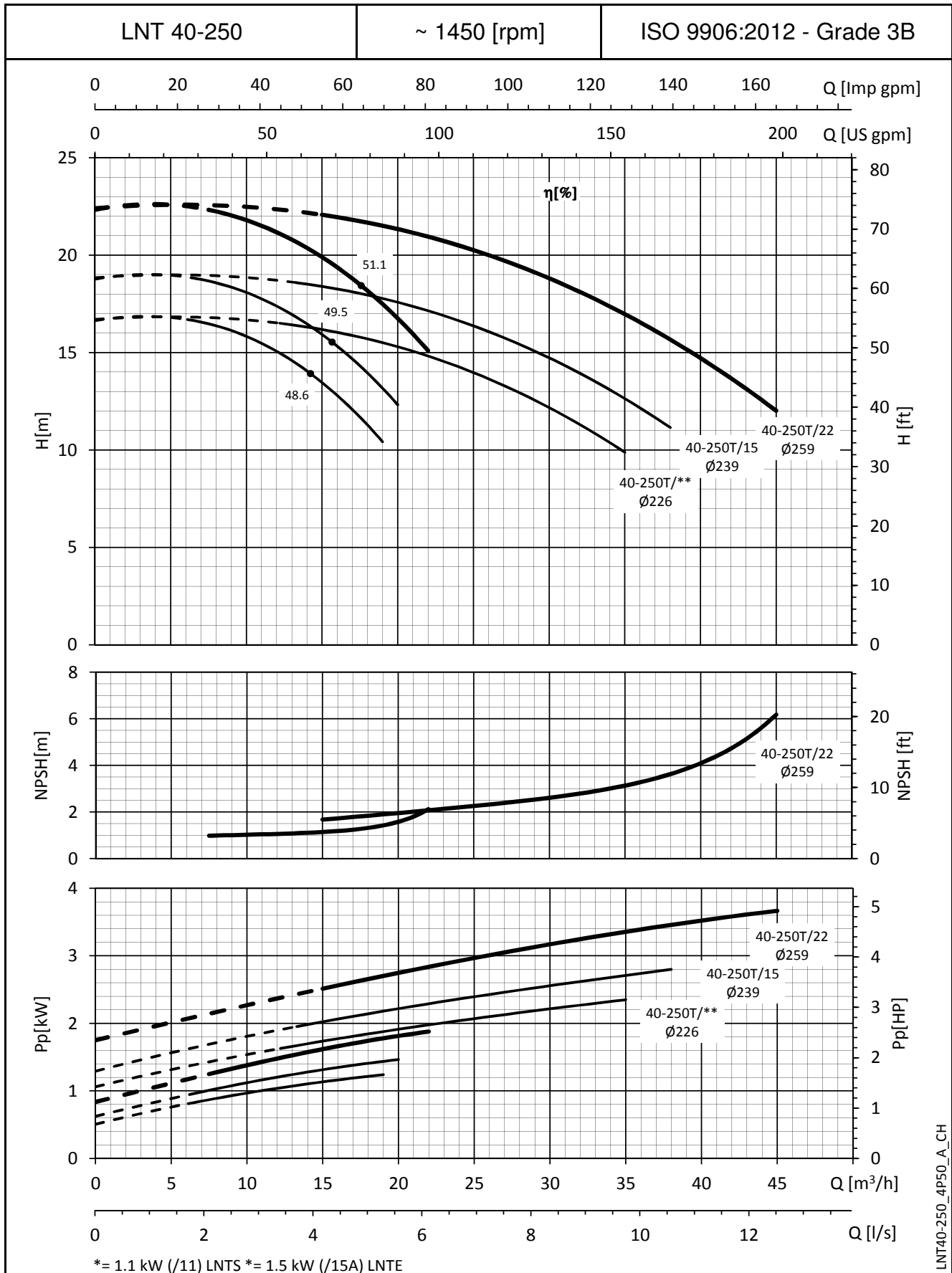


LNT40-200_4P50_A_CH

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

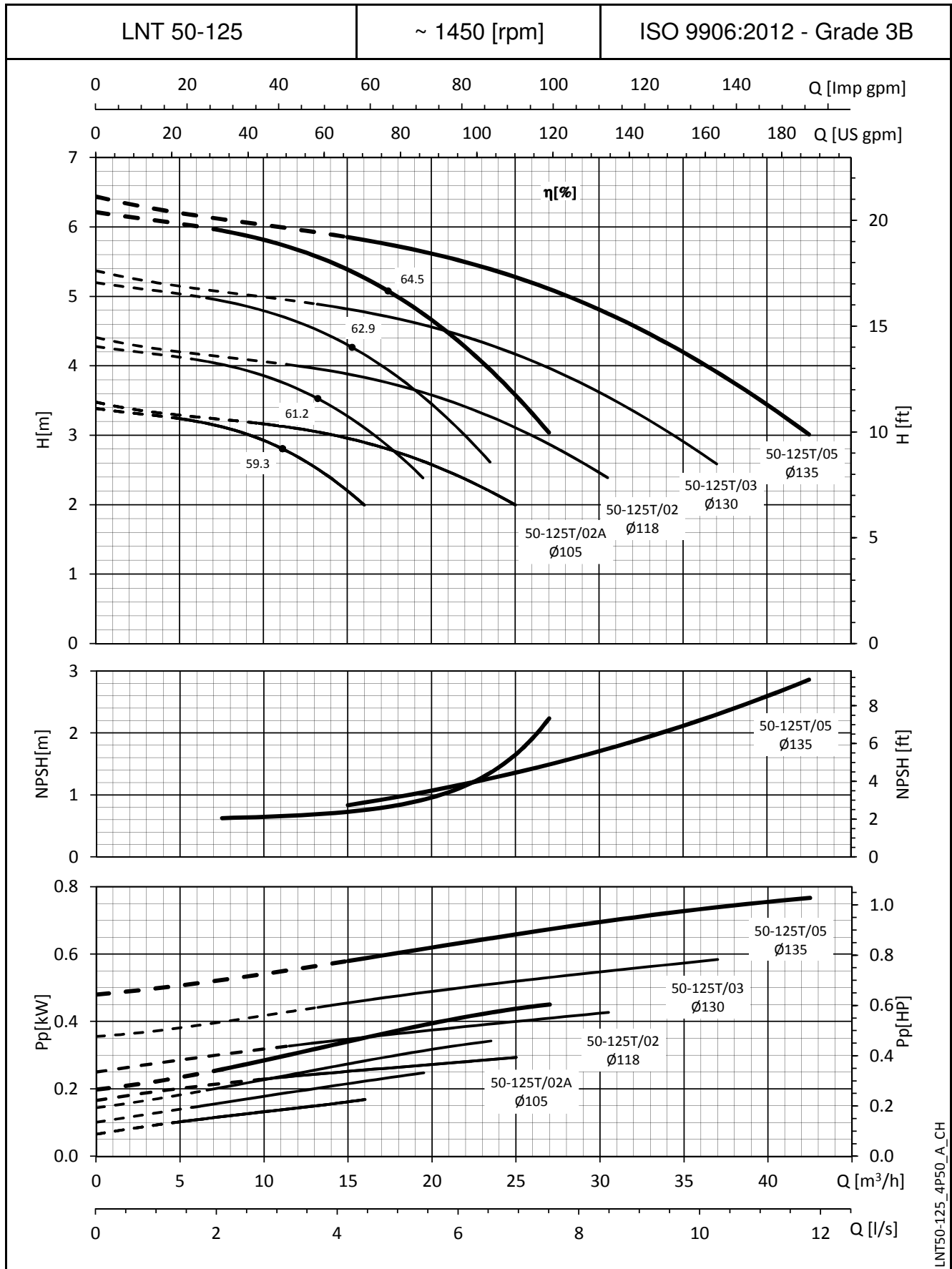
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

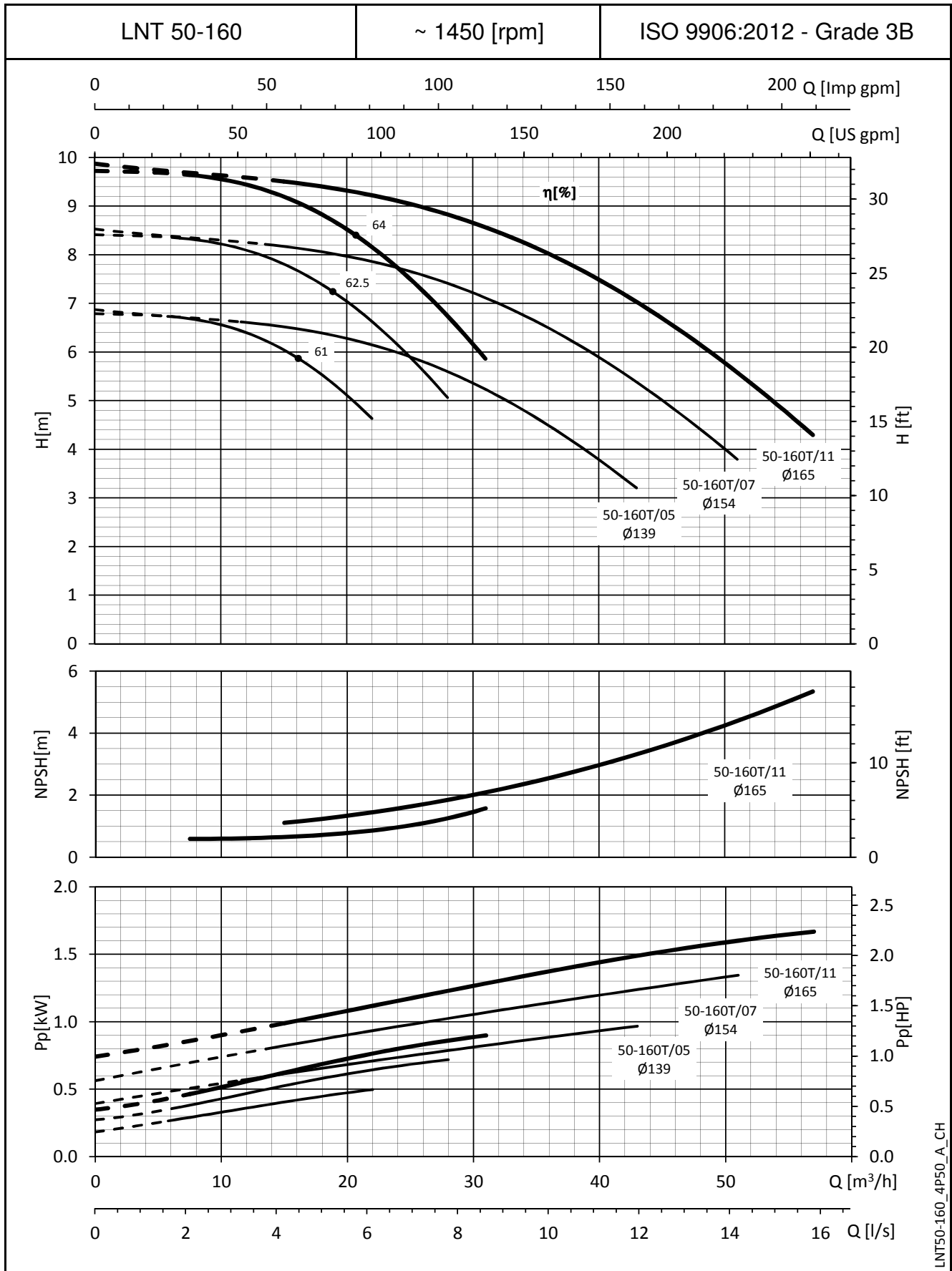


LNT50-125_4P50_A_CH

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

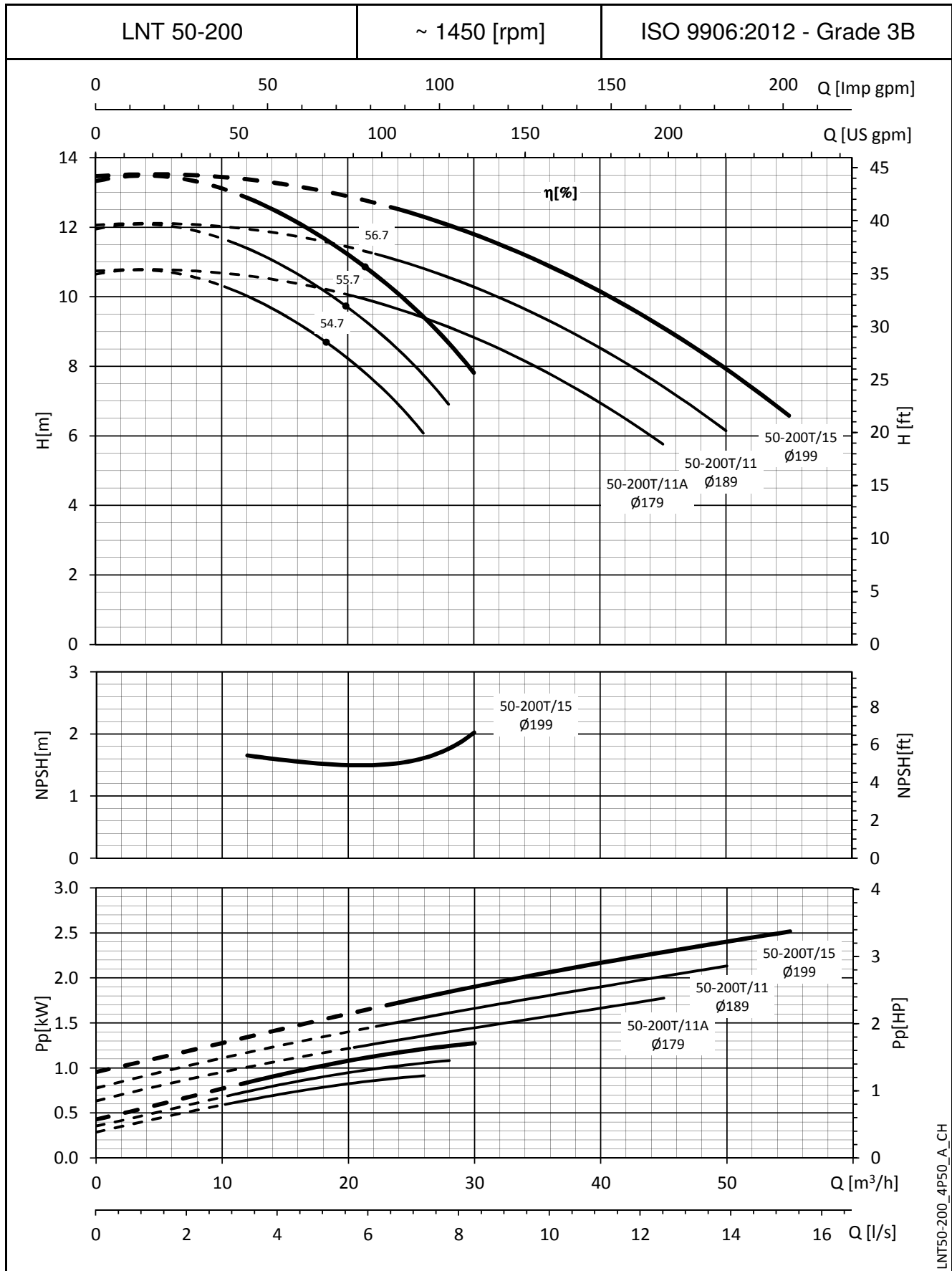


LNT50-160_4P50_A_CH

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

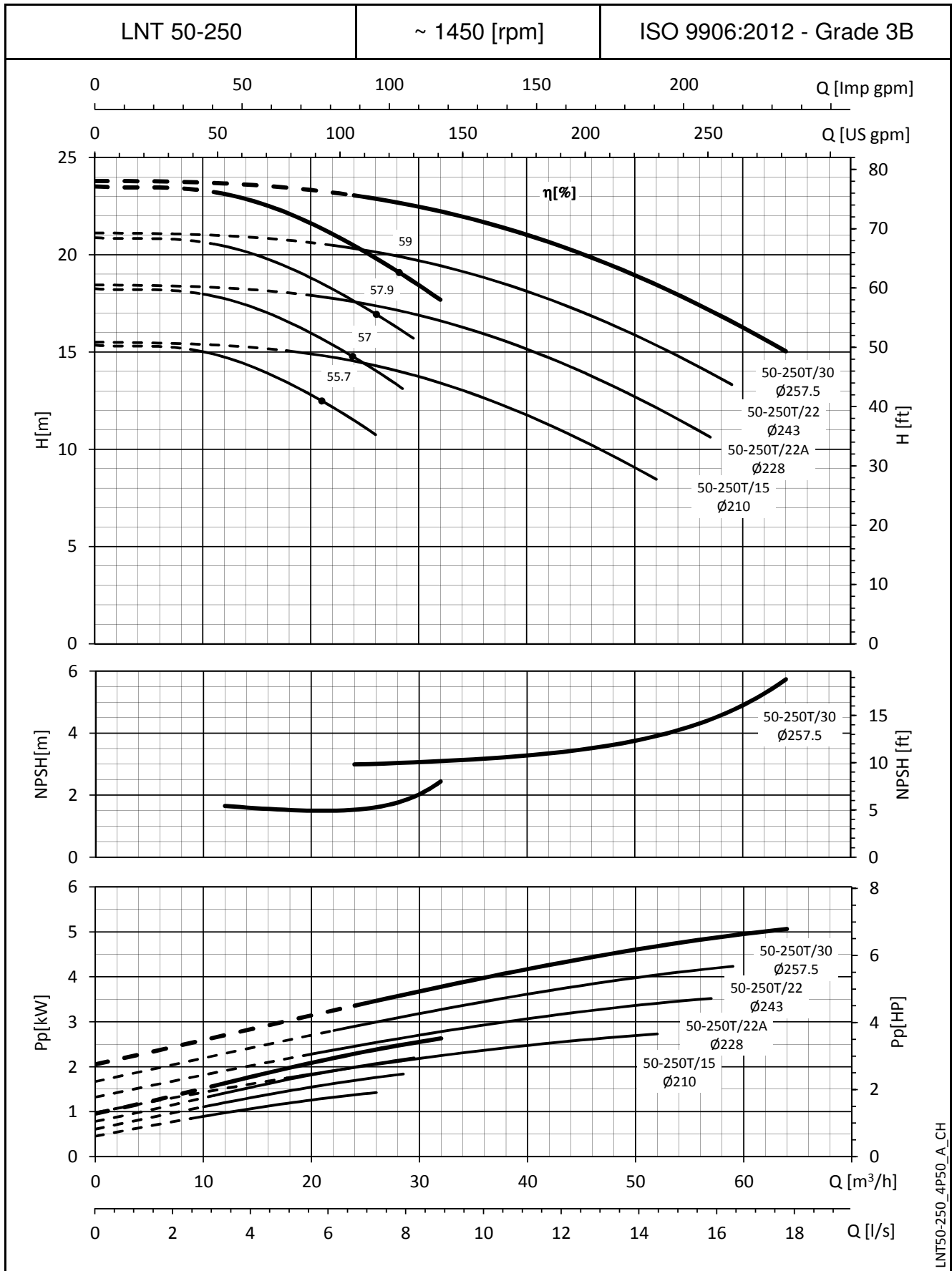


LNT50-200_4P50_A_CH

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

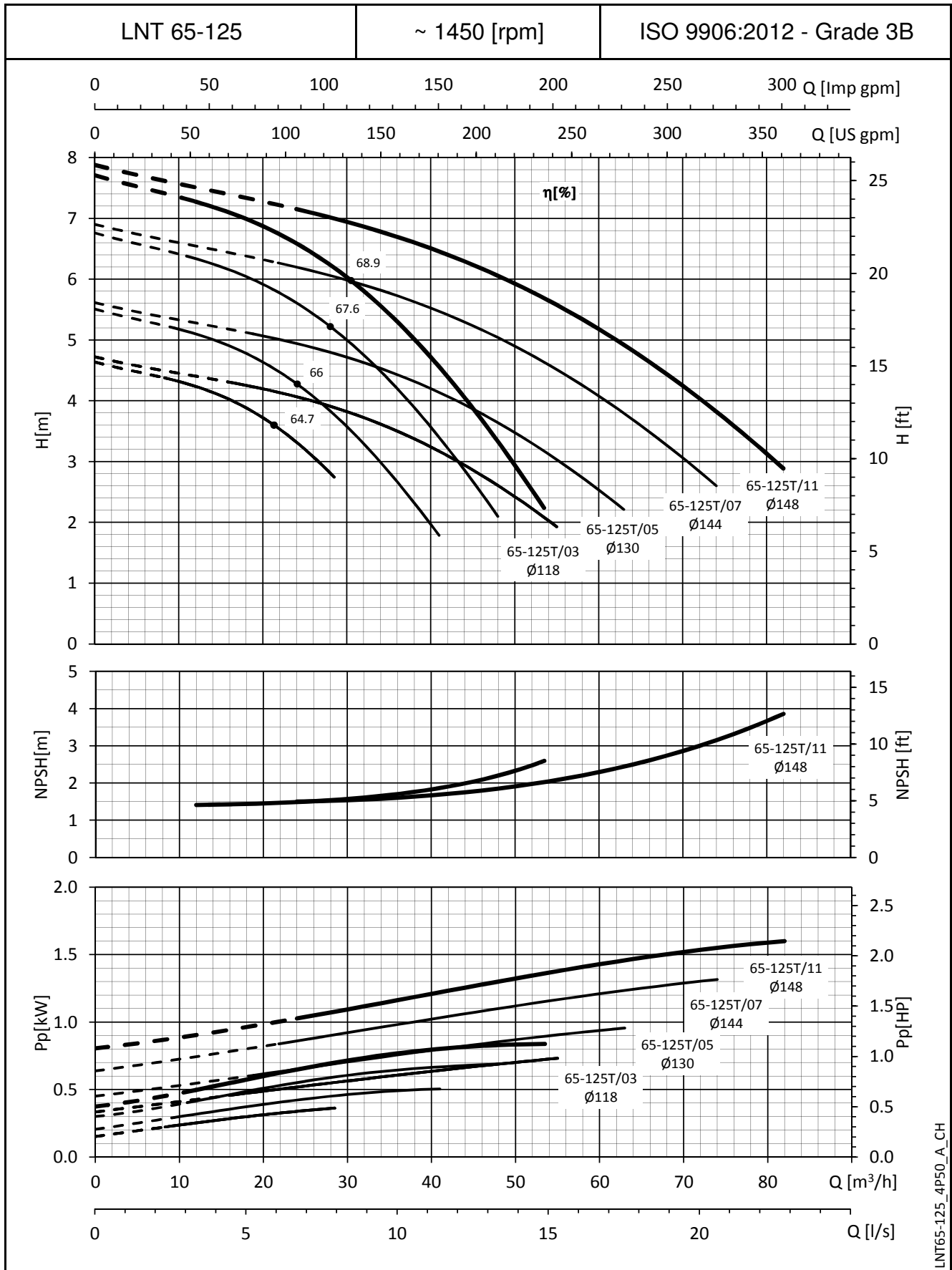


LNT50-250_4P50_A_CH

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

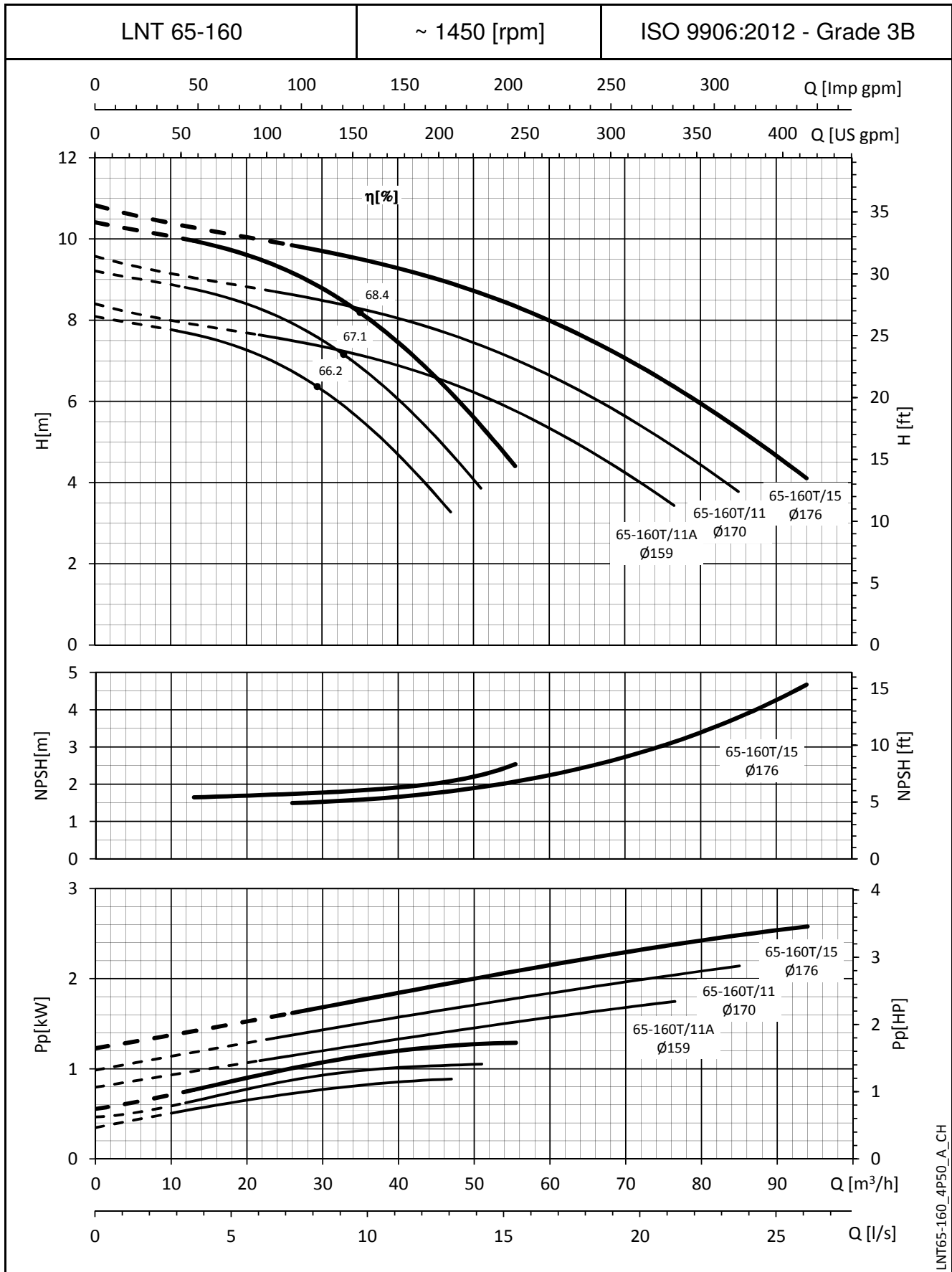


LNT65-125_4P50_A_CH

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

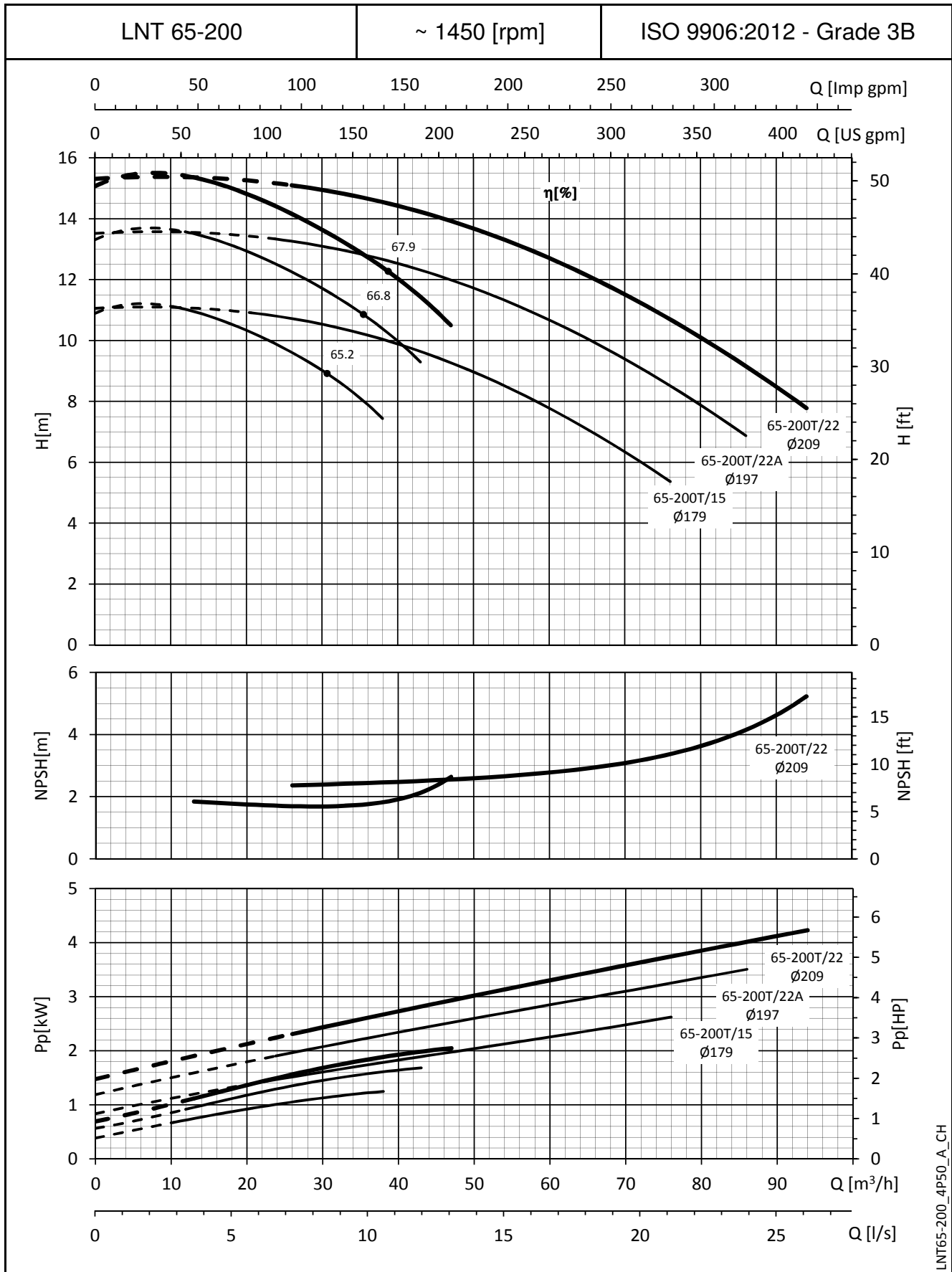


LNT65-160_4P50_A_CH

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

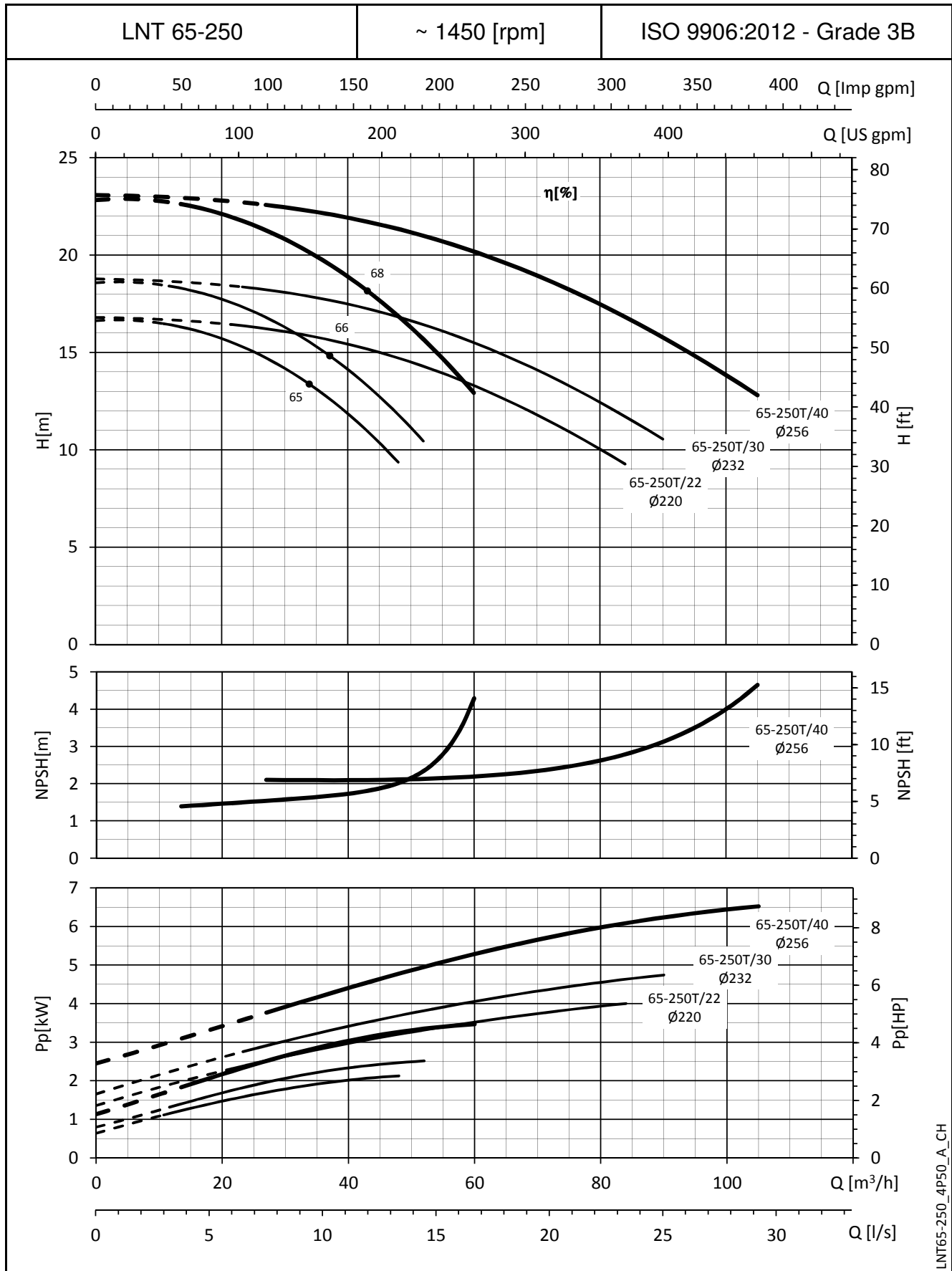


LNT65-200_4P50_A_CH

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

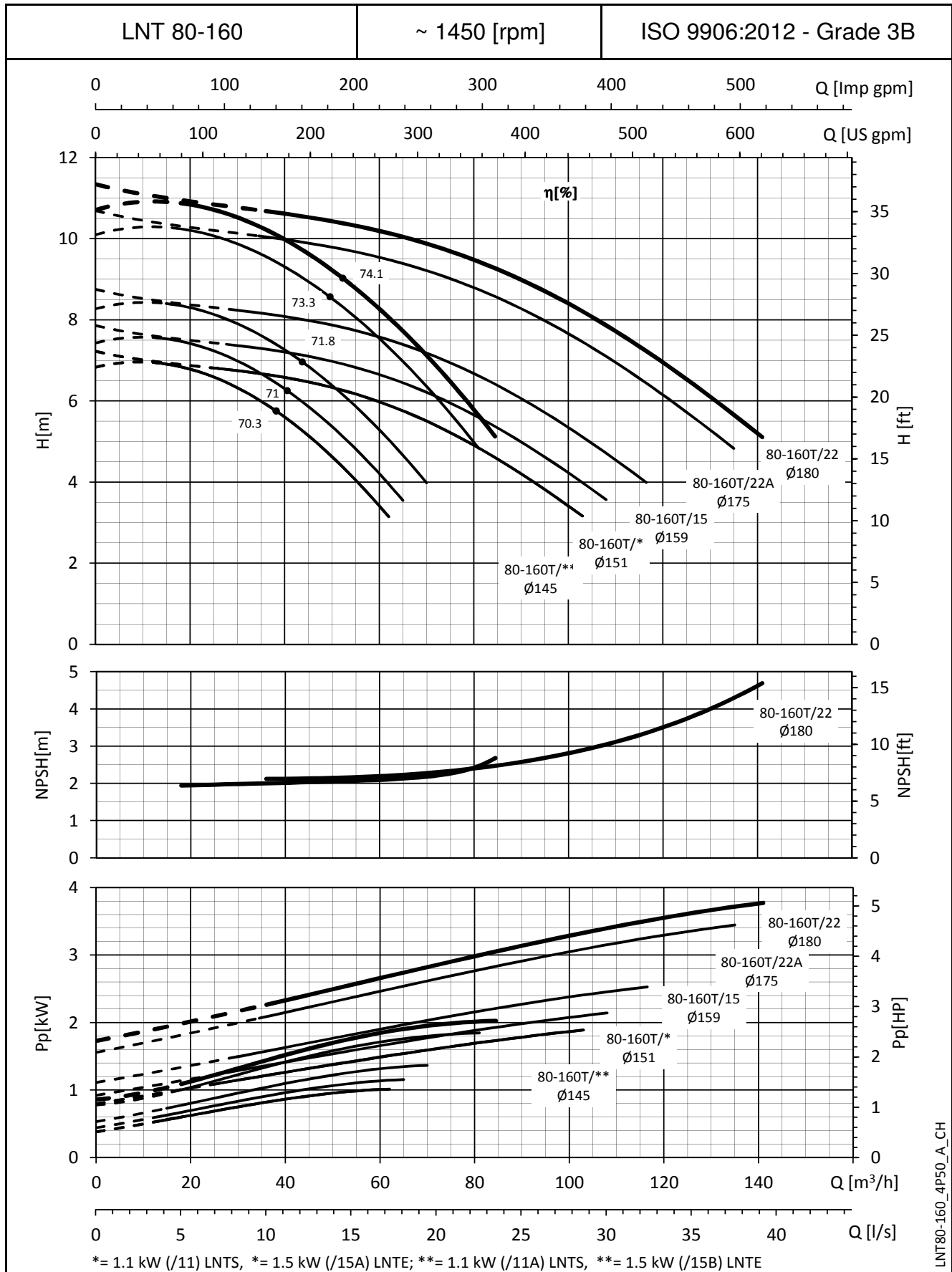


LNT65-250_4P50_A_CH

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

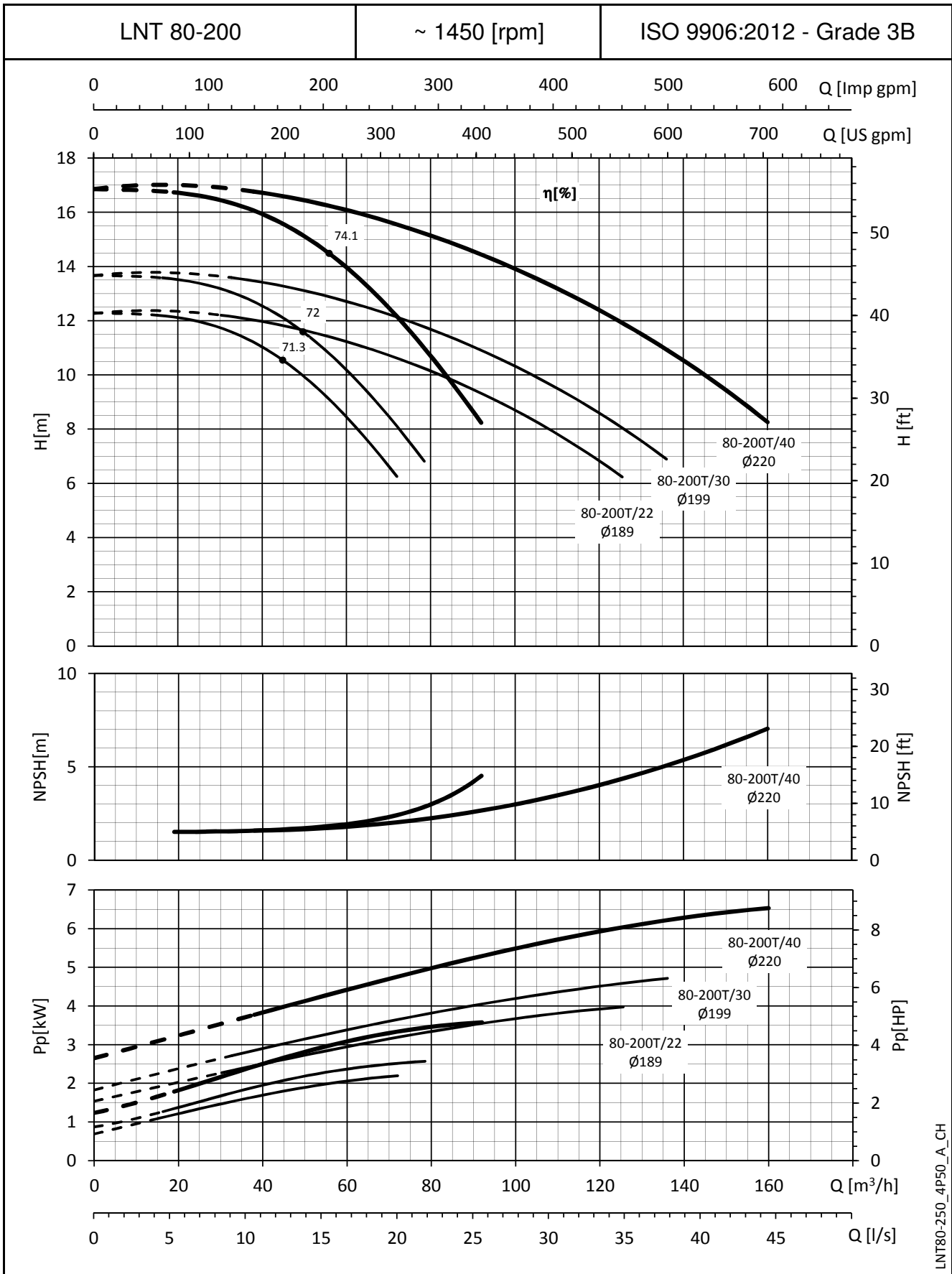


LNT80-160_4P50_A_CH

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

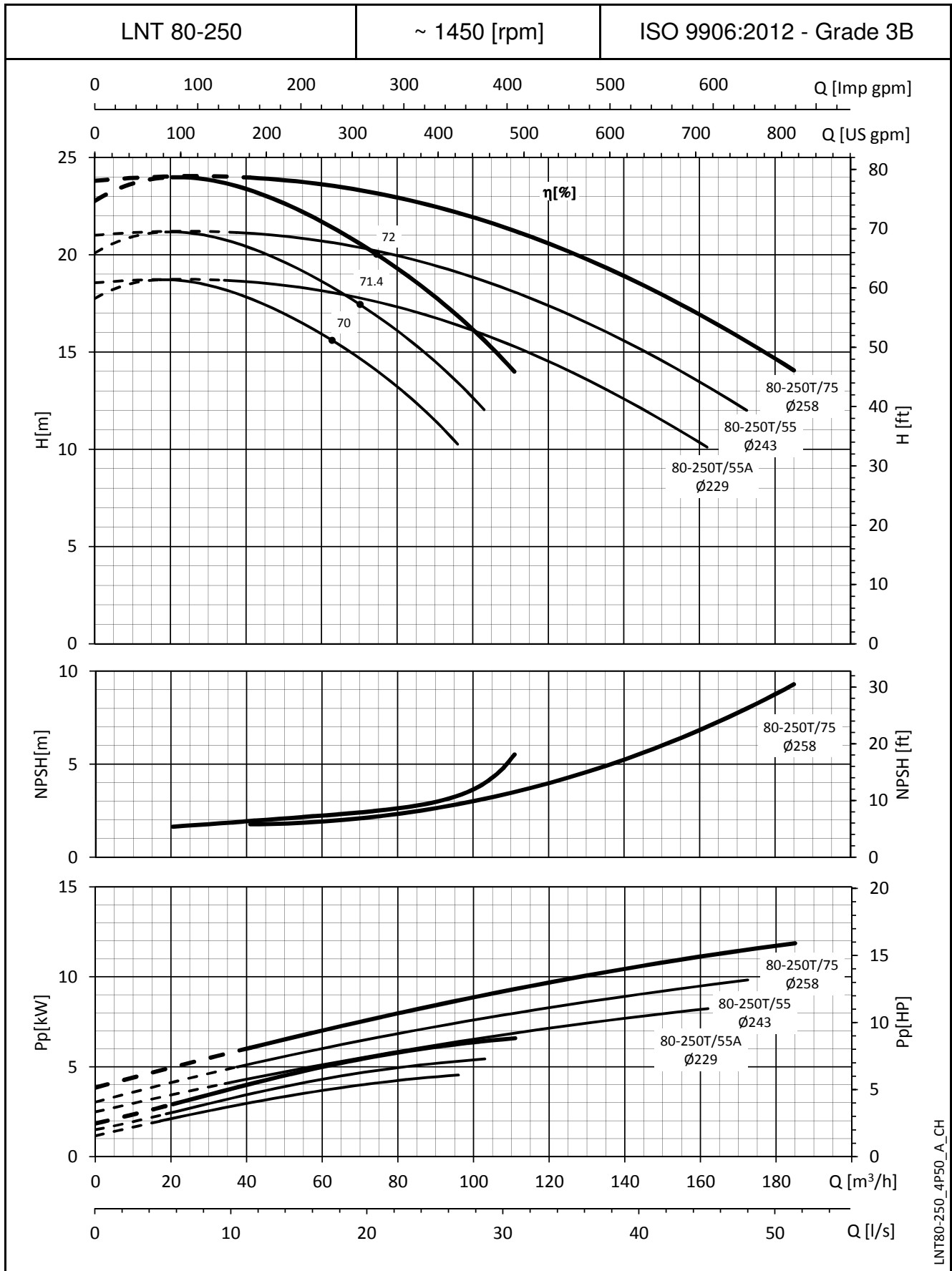


LNT80-250_4P50_A_CH

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

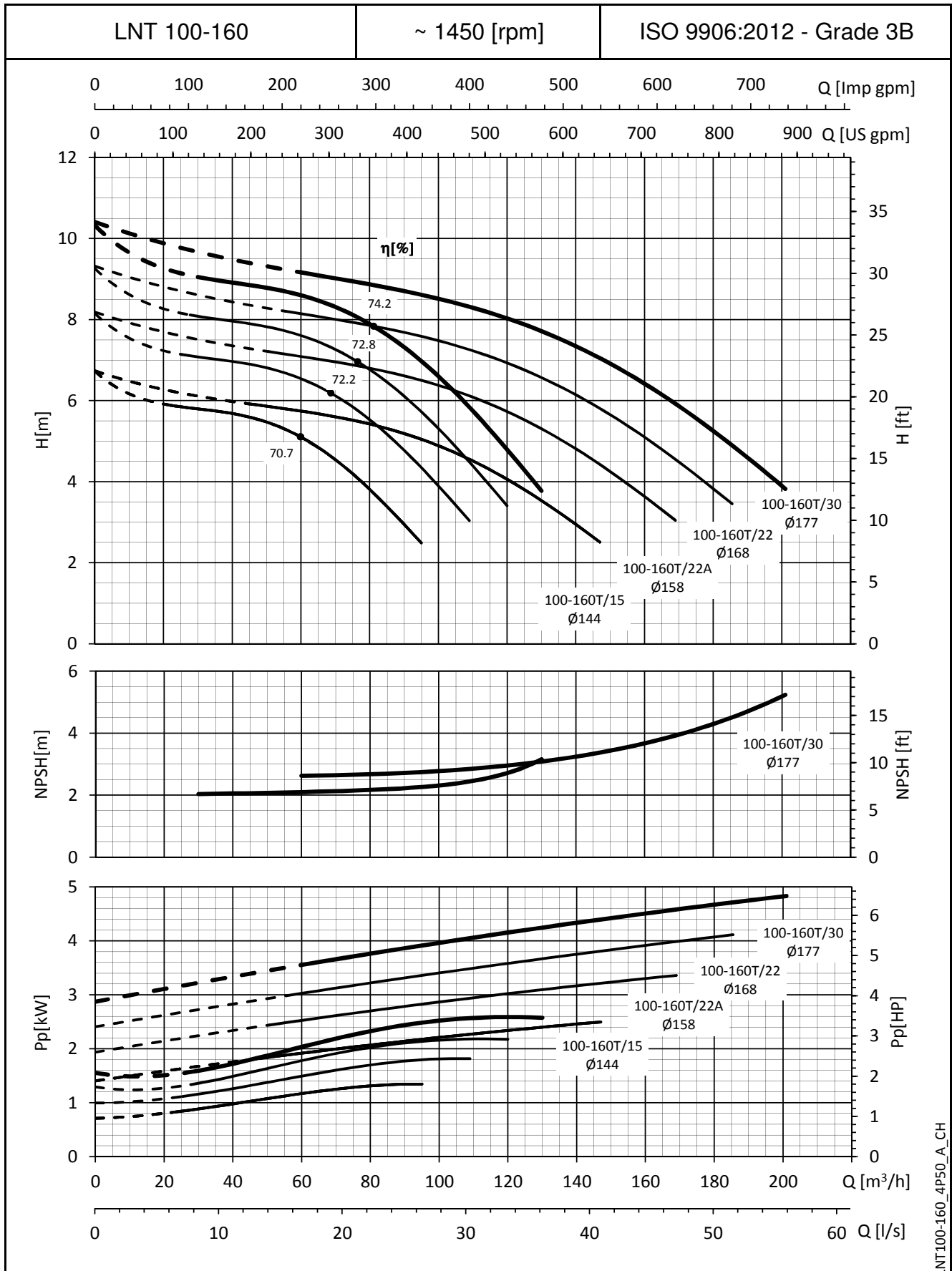
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

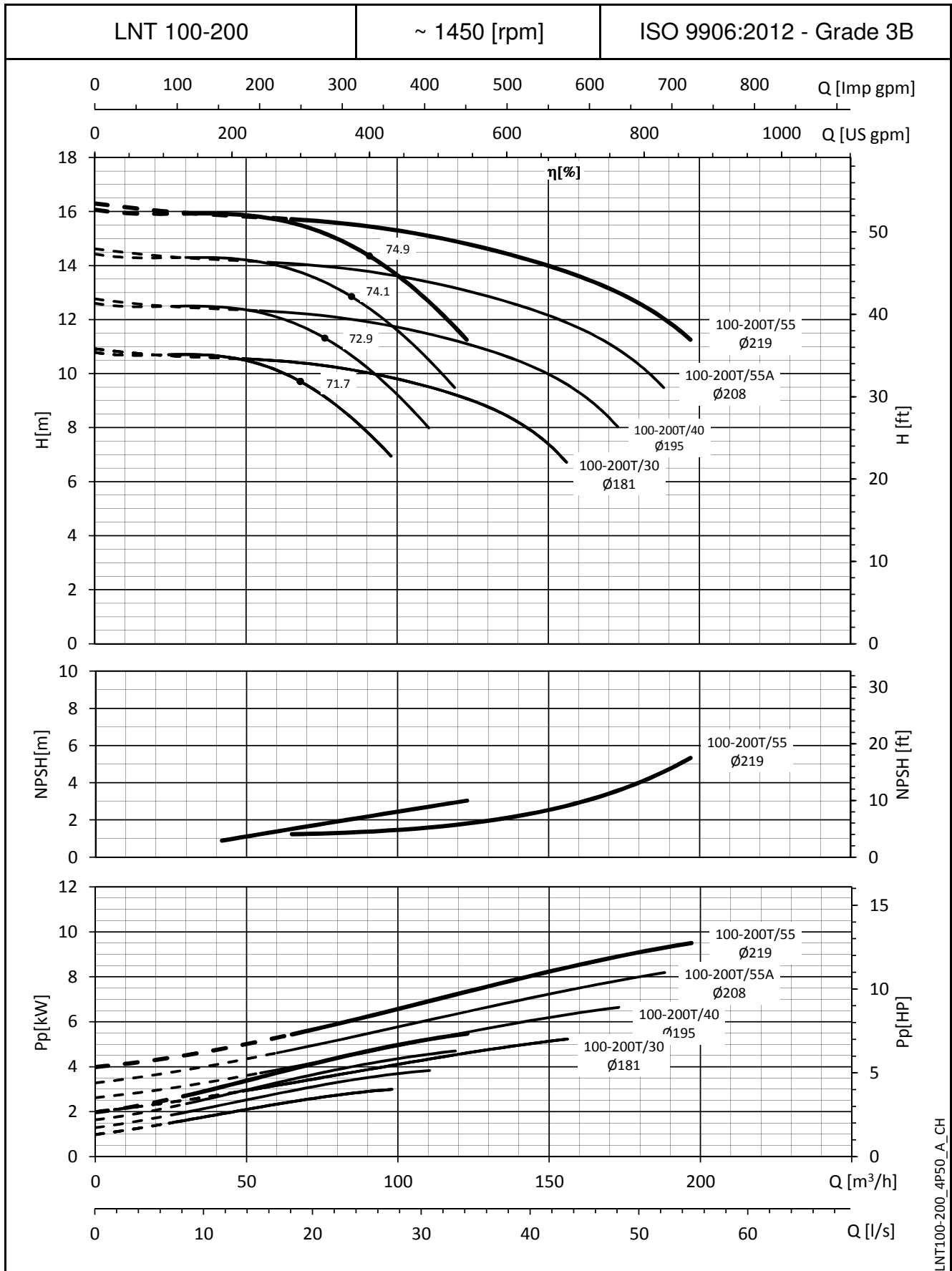


LNT100-160_4P50_A_CH

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

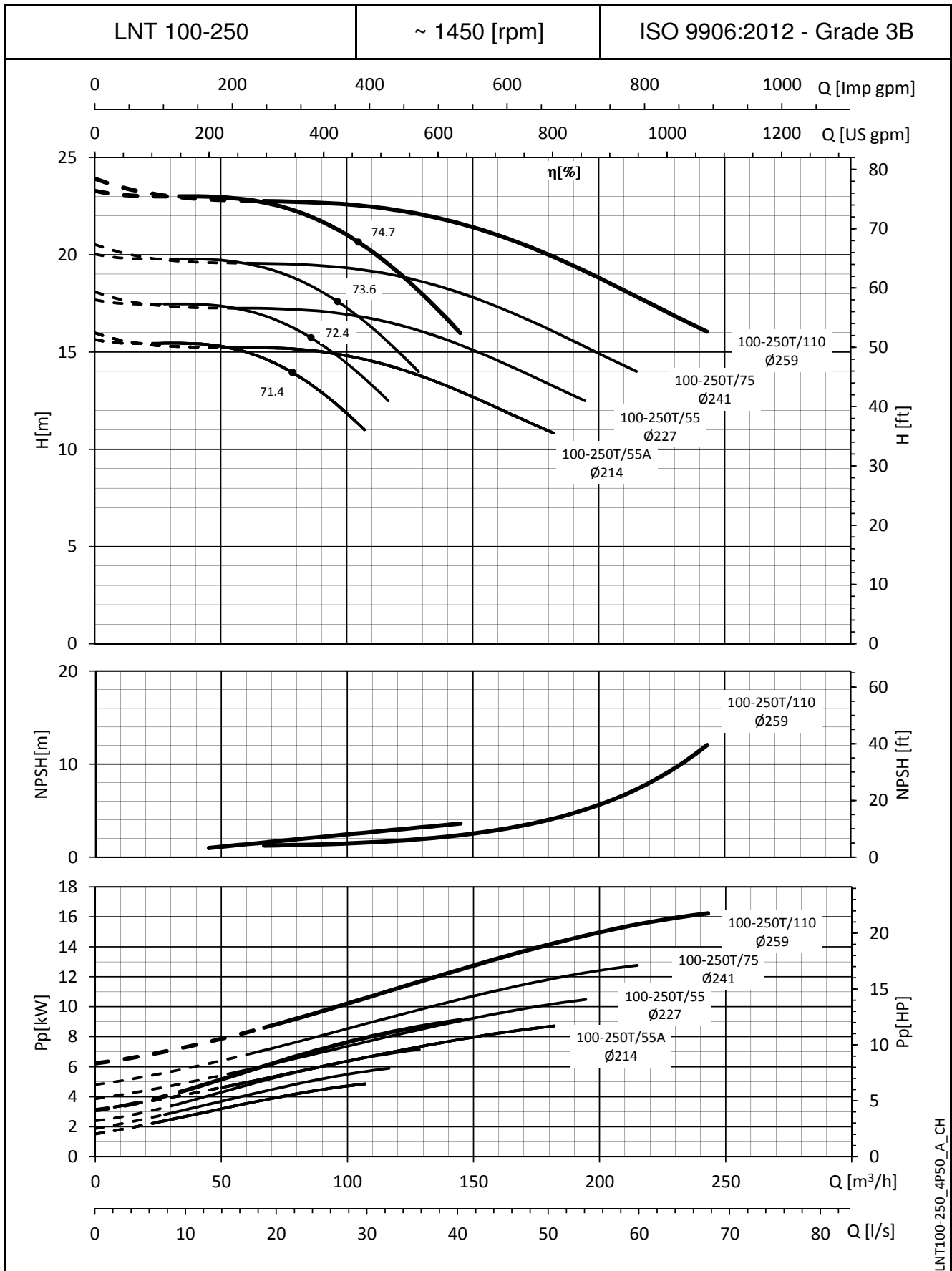


LNT100-200_4P50_A_CH

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

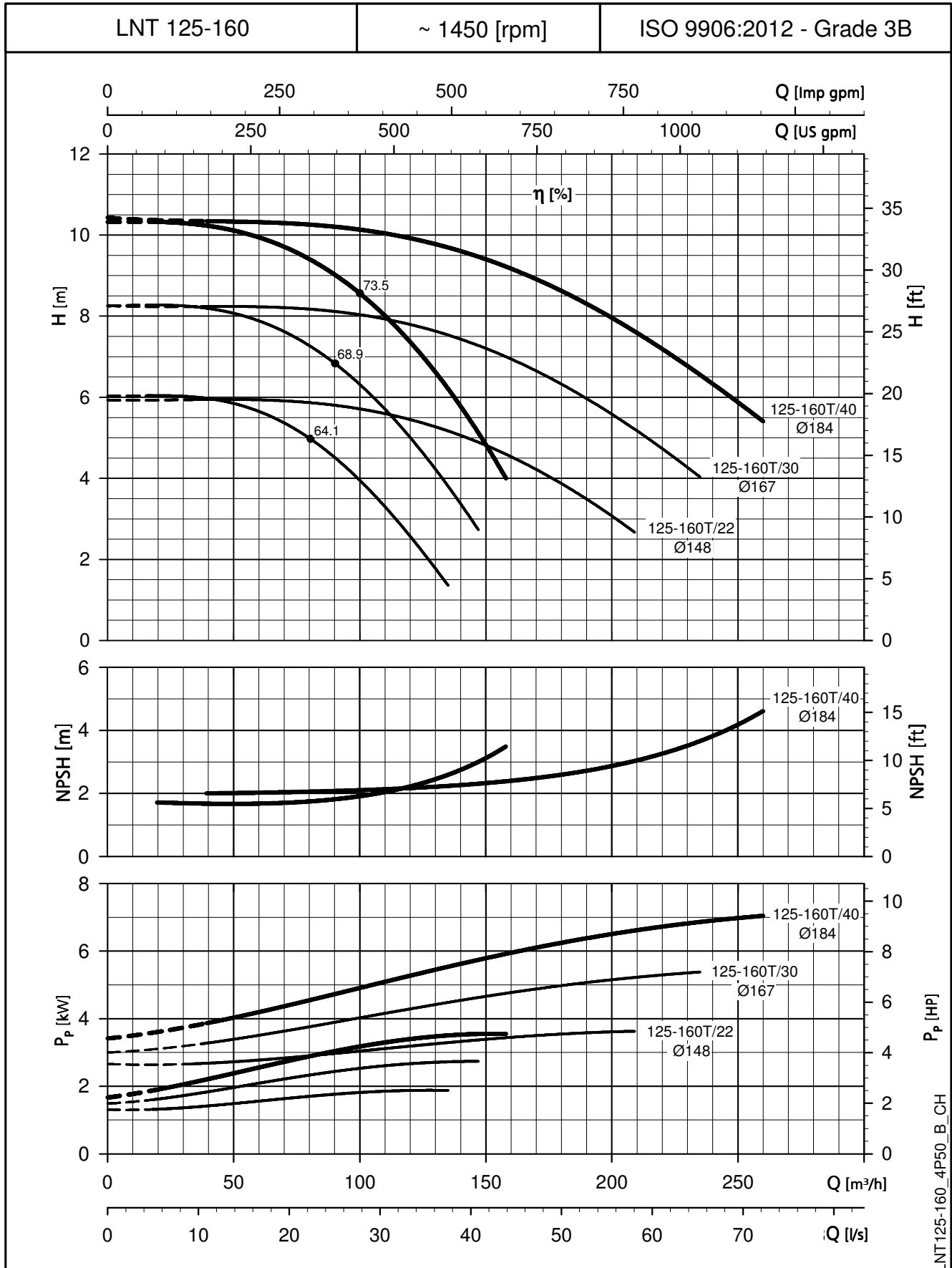


LNT100-250_4P50_A_CH

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

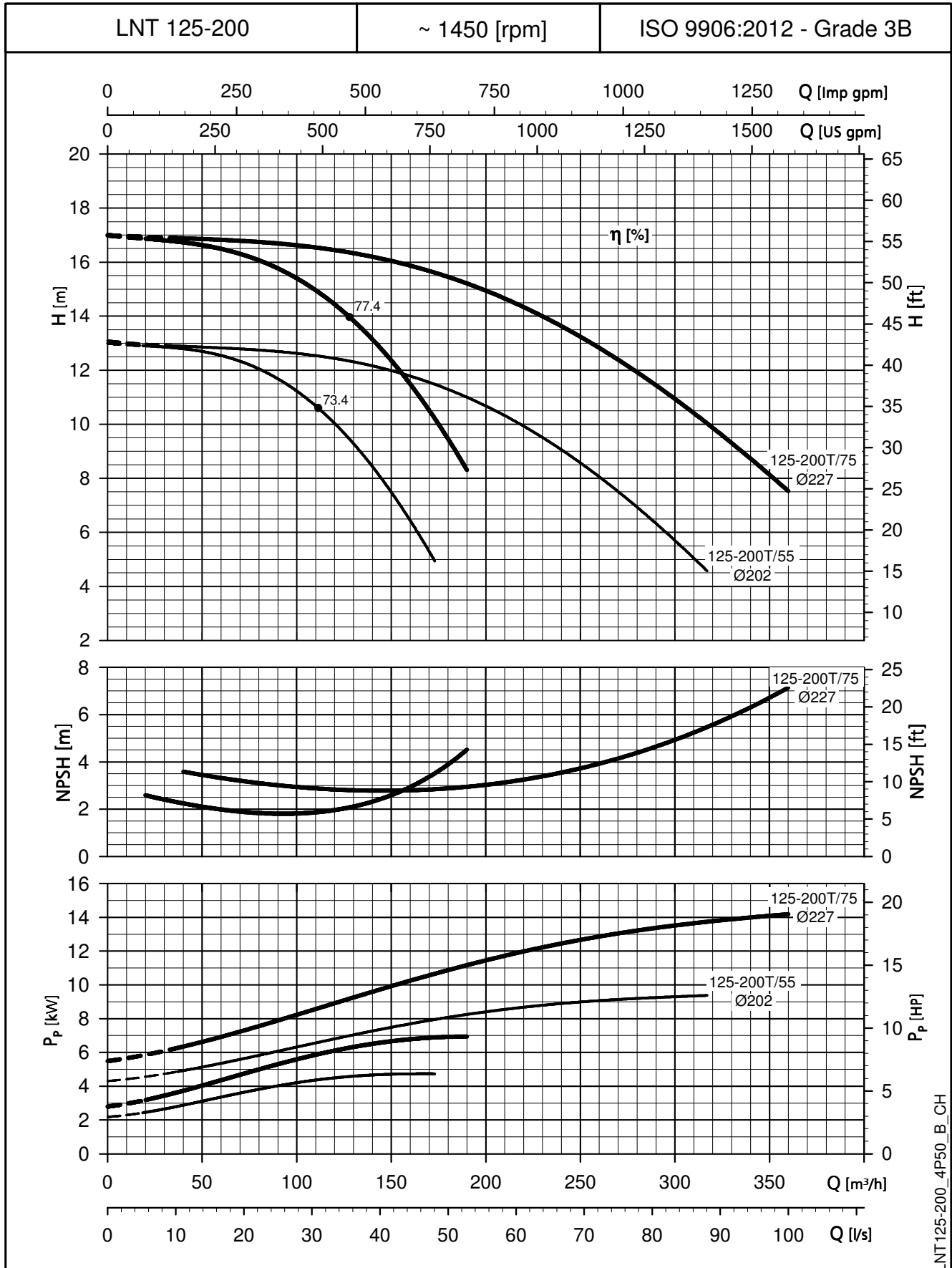
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

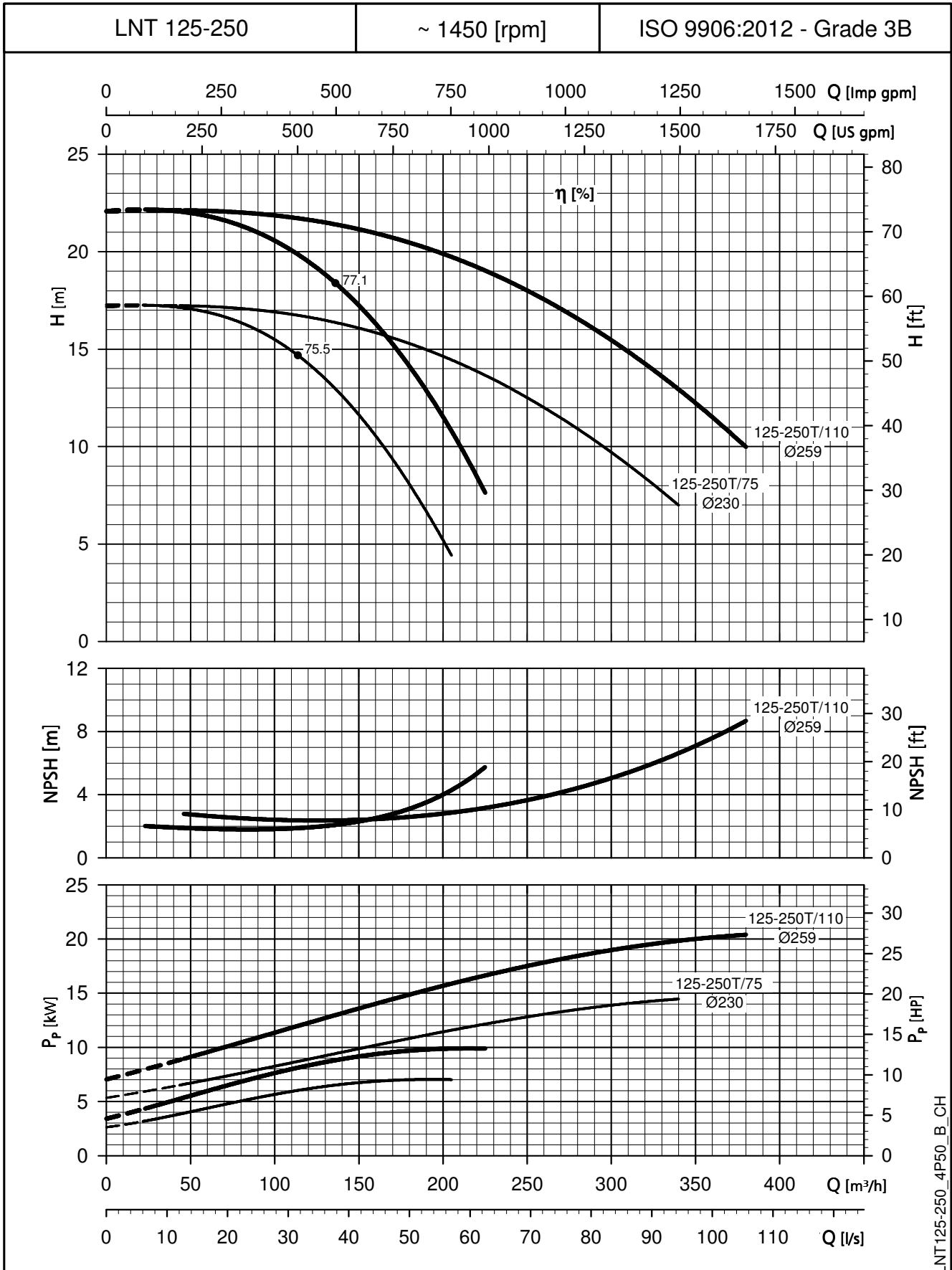


LNT125-200_4P50_B_CH

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

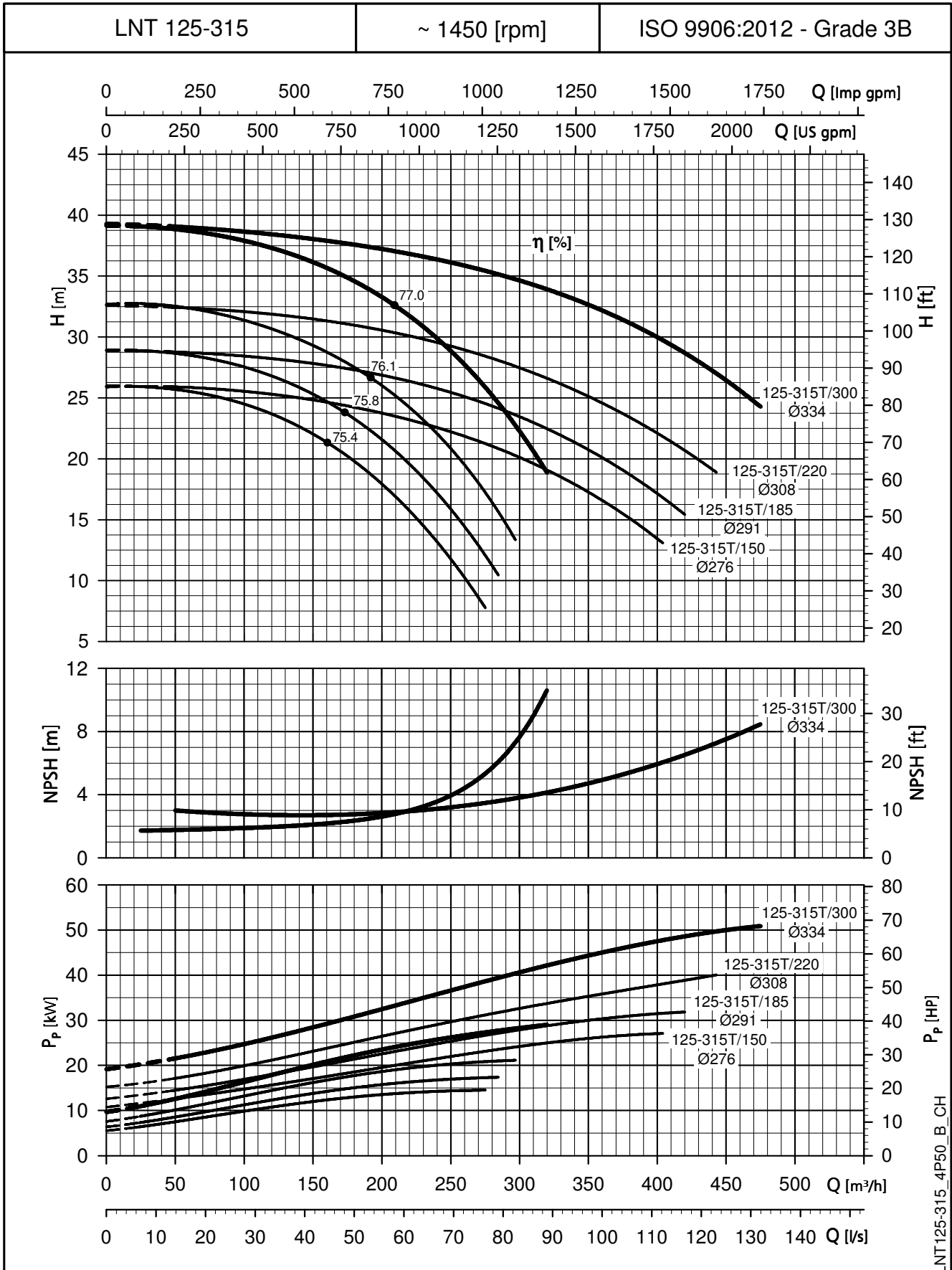


LNT125-250_4P50_B_CH

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

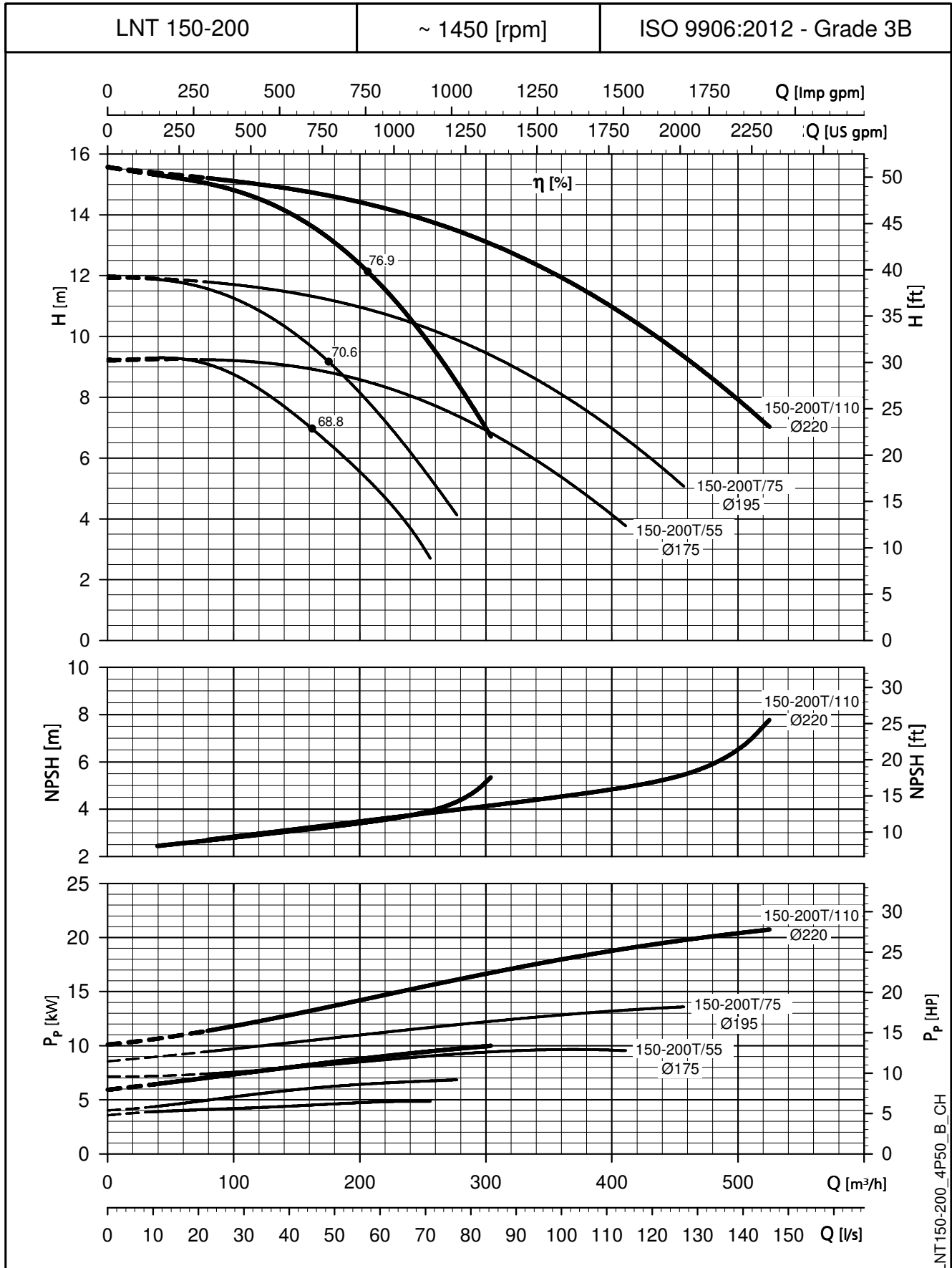


LNT125-315_4P50_B_CH

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

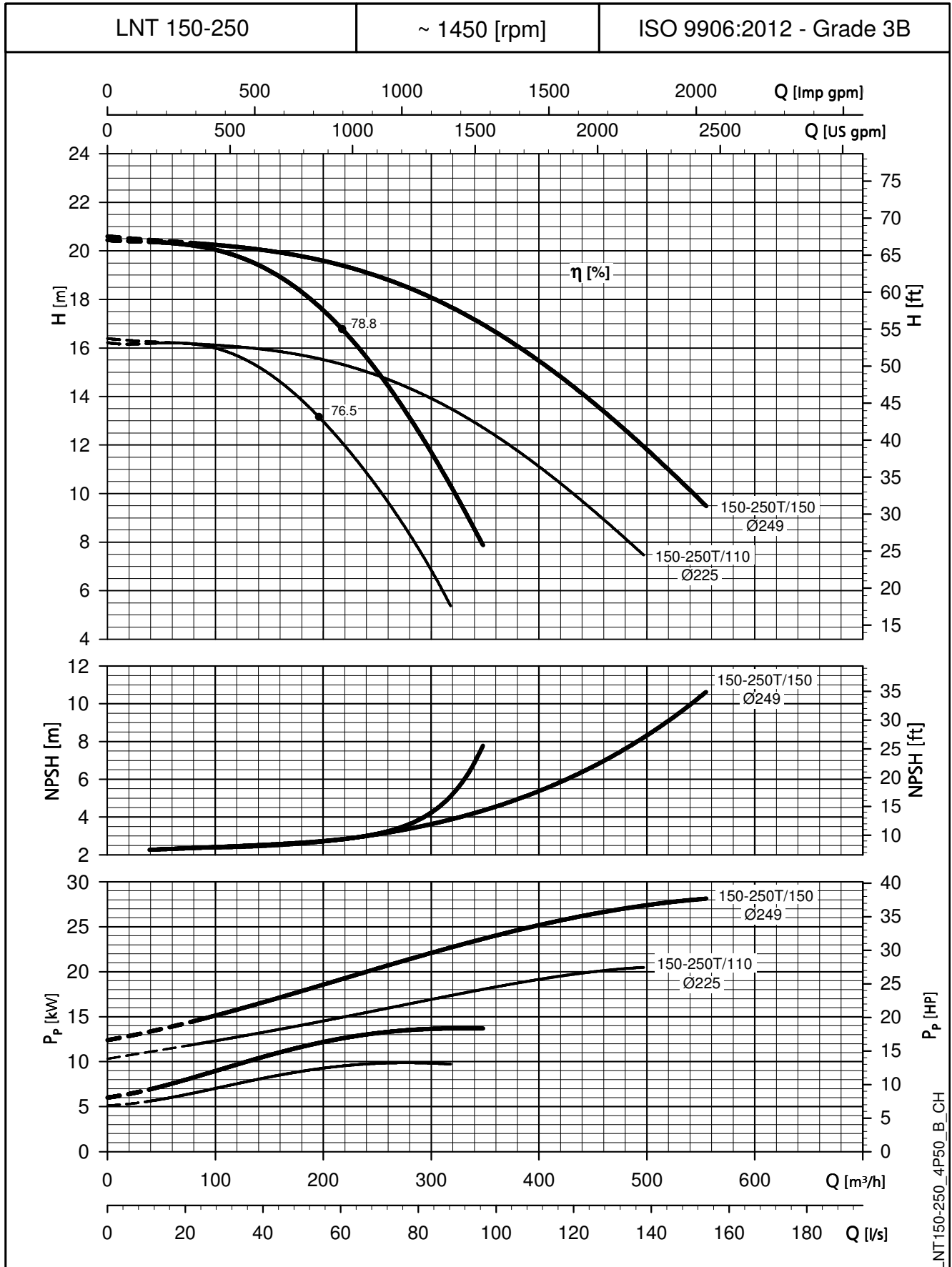
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

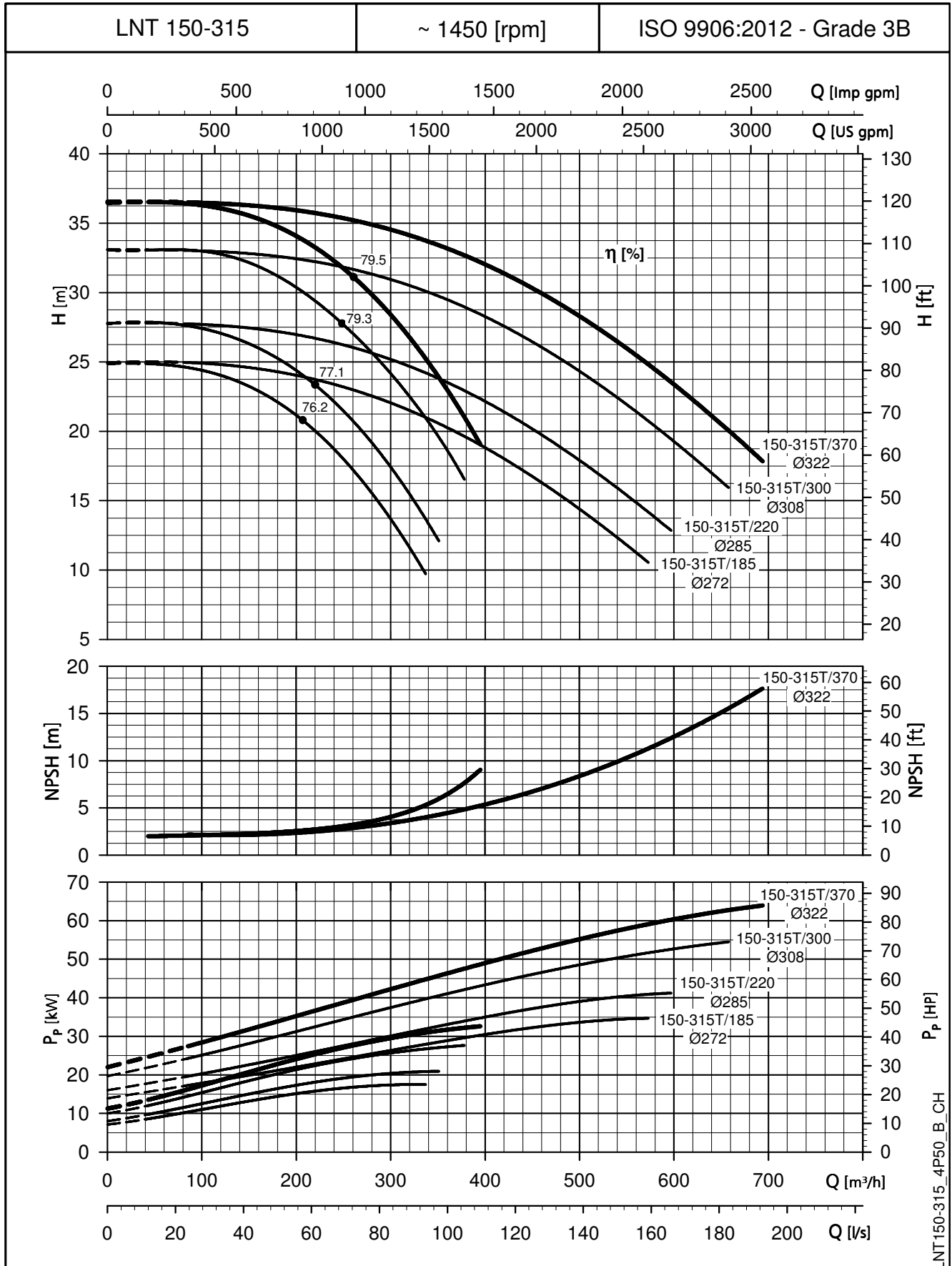
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

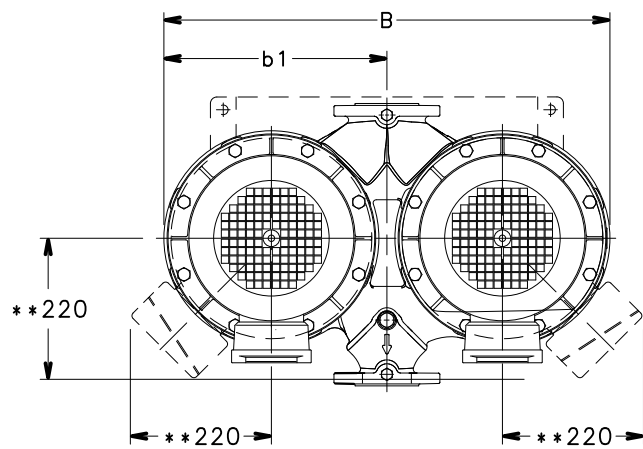
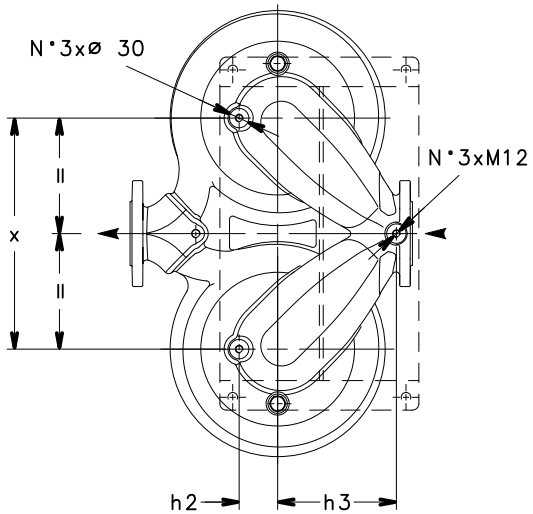
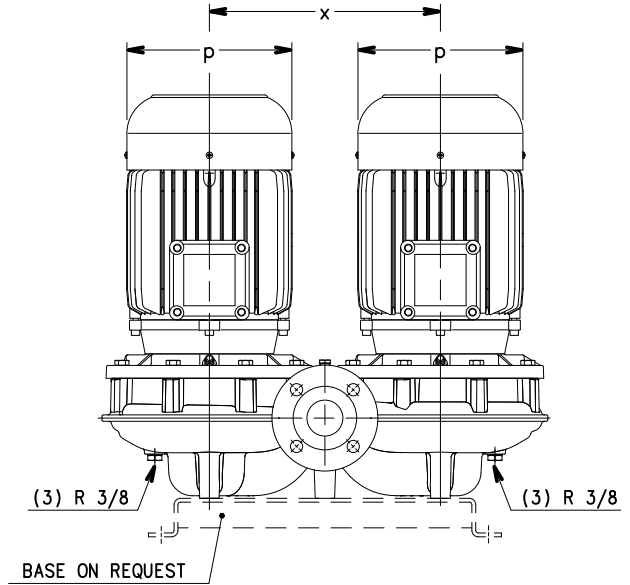
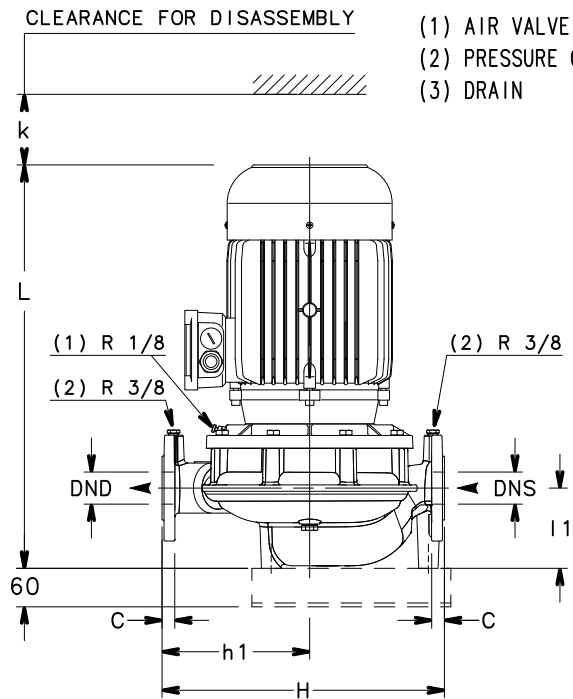
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



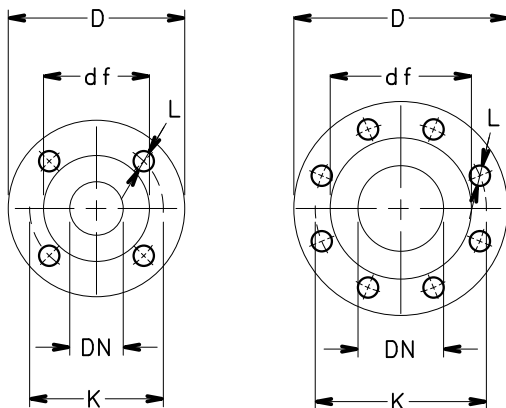
The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

DIMENSIONS AND WEIGHTS

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



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



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.

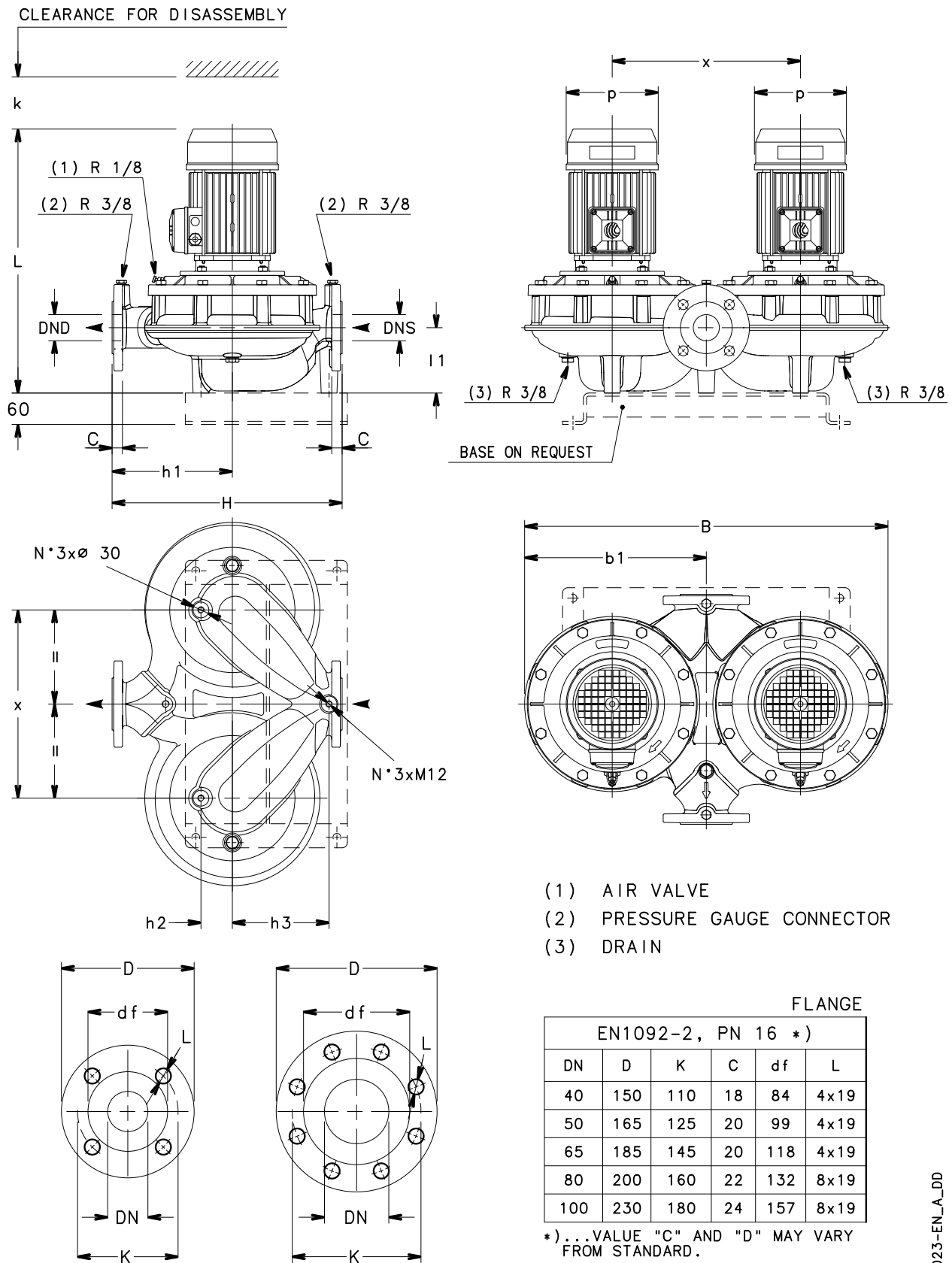
LNTE 40, 50, 65, 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE LNTE..2	DIMENSIONS (mm)									B	H	L	k	WEIGHT kg
	DND	DNS	b1	h1	h2	h3	l1	p	x					
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
40-160/30/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
40-200/40/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
40-250/92/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
50-160/40/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
50-200/75/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
50-250/110/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
65-160/75/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
65-200/110/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
65-250/185/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
80-160/75/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-40-100_2p50-en_a_td

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



A0023-EN_A_DD

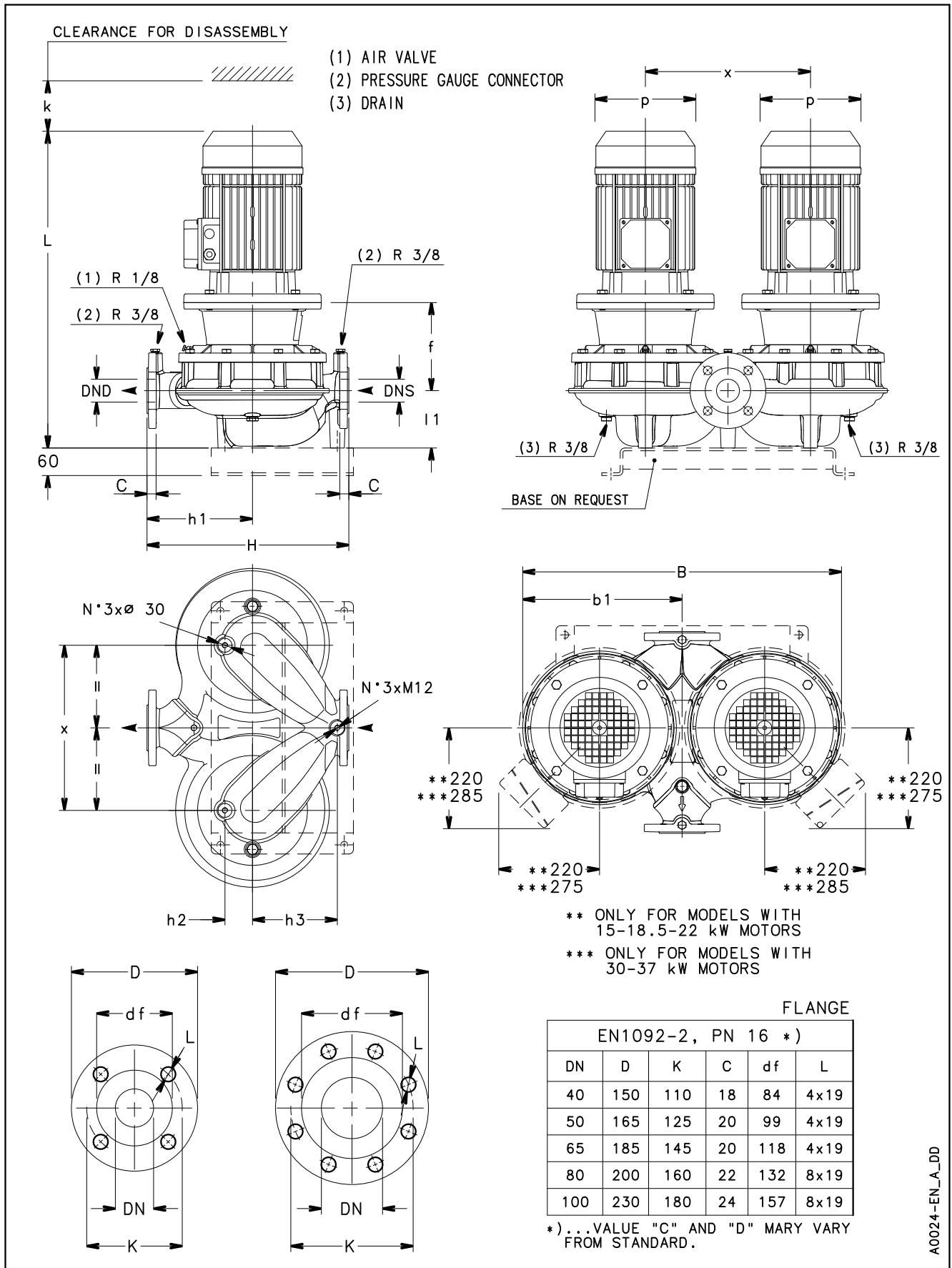
LNTE 40, 50, 65, 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE LNTE..4	DIMENSIONS (mm)									B	H	L	k	WEIGHT kg
	DND	DNS	b1	h1	h2	h3	l1	p	x					
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
40-160/03/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	463	94	57
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
40-250/15A/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
50-160/05/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
50-200/11A/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
50-250/15/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
65-160/11A/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
65-200/15/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
65-250/22/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	616	105	201
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-40-100_4p50-en_a_td

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



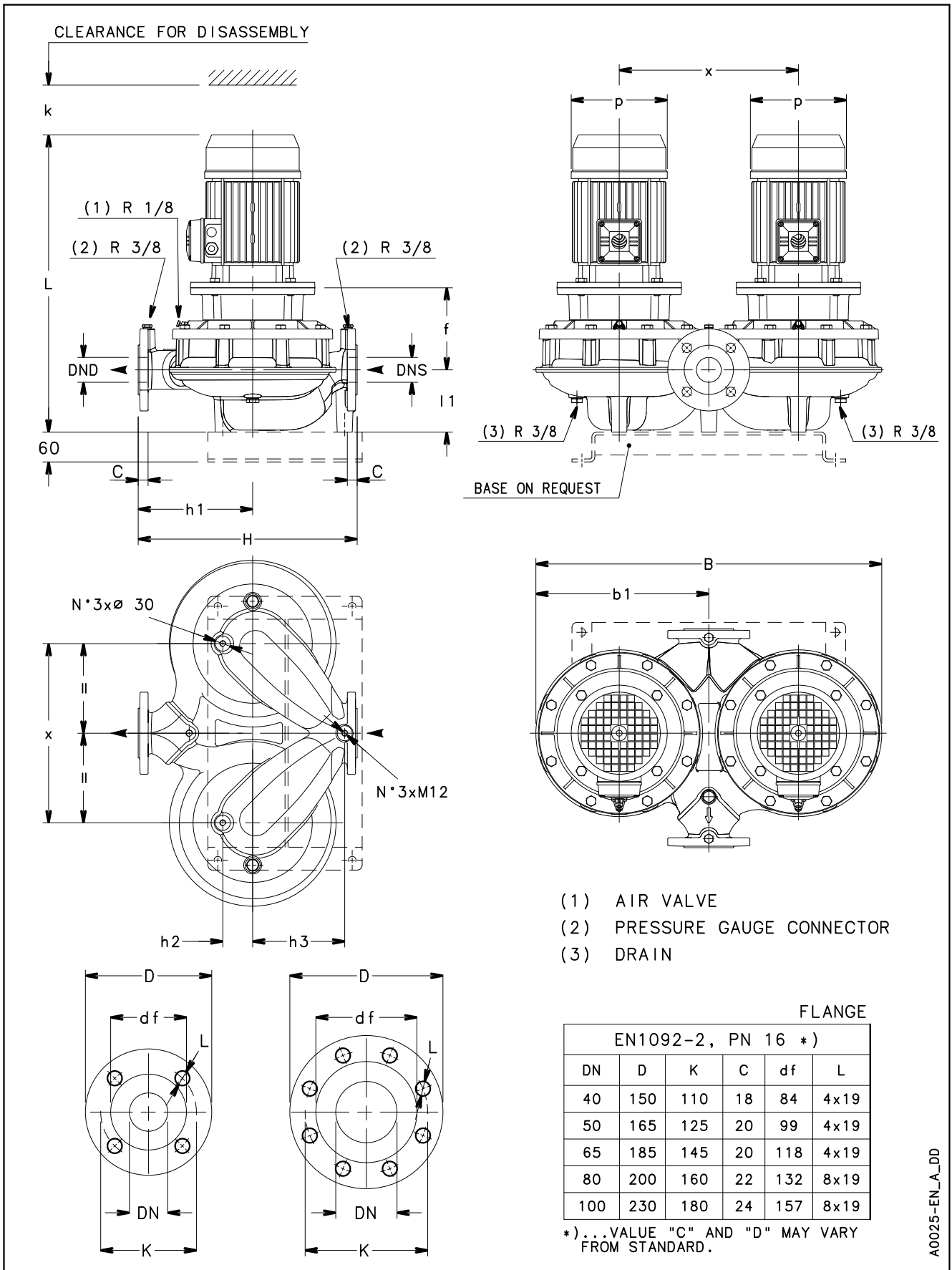
LNTS 40, 50, 65 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE LNTS..2	DIMENSIONS (mm)										B	H	L	k	WEIGHT kg
	DND	DNS	b1	f	h1	h2	h3	l1	p	x					
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
40-160/30/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
40-200/40/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
40-250/110A/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
50-160/40/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
50-200/75/P	50	50	372,5	192	230	60	185	115	256	410	745	440	664	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
50-250/110/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
65-160/75/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
65-200/110/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
65-250/185/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-40-50-65_2p50-en_a_td

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



A0025-EN_A_DD

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

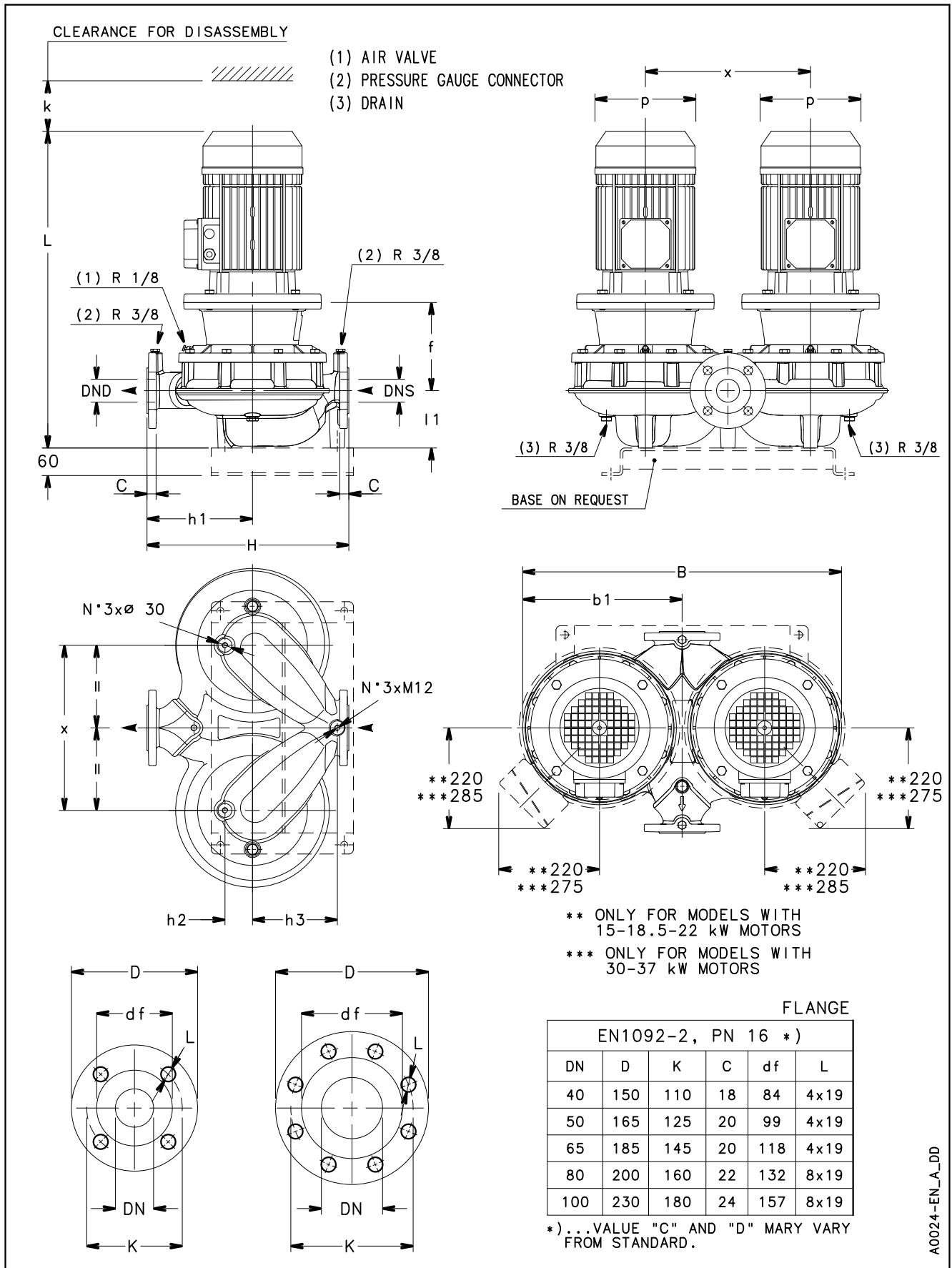
PUMP TYPE LNTS..4	DIMENSIONS (mm)										B	H	L	k	WEIGHT kg
	DND	DNS	b1	f	h1	h2	h3	l1	p	x					
40-160/05/S	40	40	274,5	155	180	52	110	100	155	310	549	320	518	94	63
40-160/07/X	40	40	274,5	155	180	52	110	100	159	310	549	320	486	94	69
40-200/05/S	40	40	372,5	152	220	65	193	110	155	410	745	440	526	104	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
40-250/15/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
50-200/11A/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
50-250/15/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
65-160/11A/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
65-200/15/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
65-250/22/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	681	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_a_td

LNTS 80, 100 SERIES

DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES



A0024-EN_A_DD

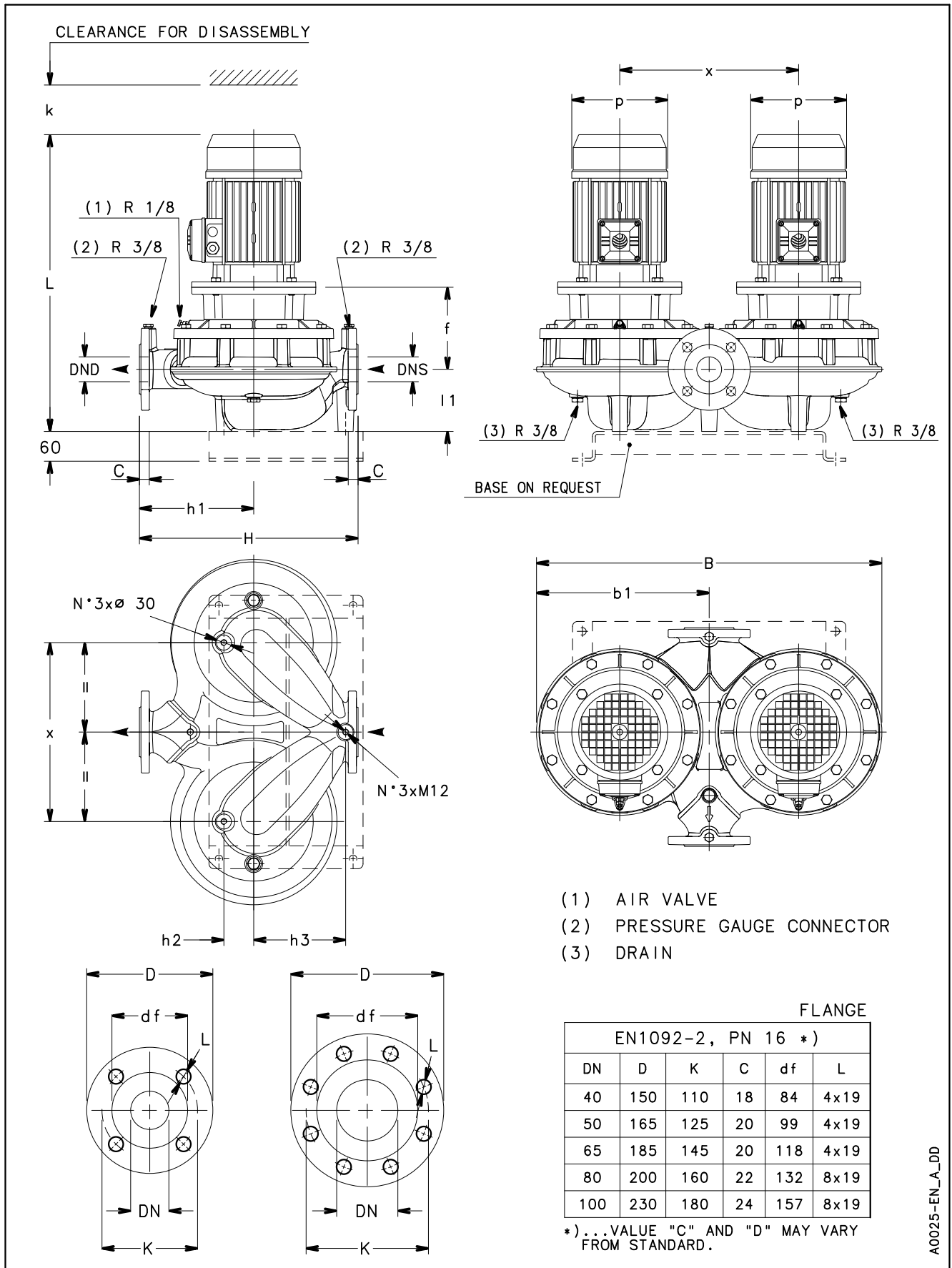
LNTS 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE LNTS..2	DIMENSIONS (mm)										B	H	L	k	WEIGHT kg
	DND	DNS	b1	f	h1	h2	h3	l1	p	x					
80-160/75/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
80-200/185/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
80-250/370/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_a_td

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



A0025-EN_A_DD

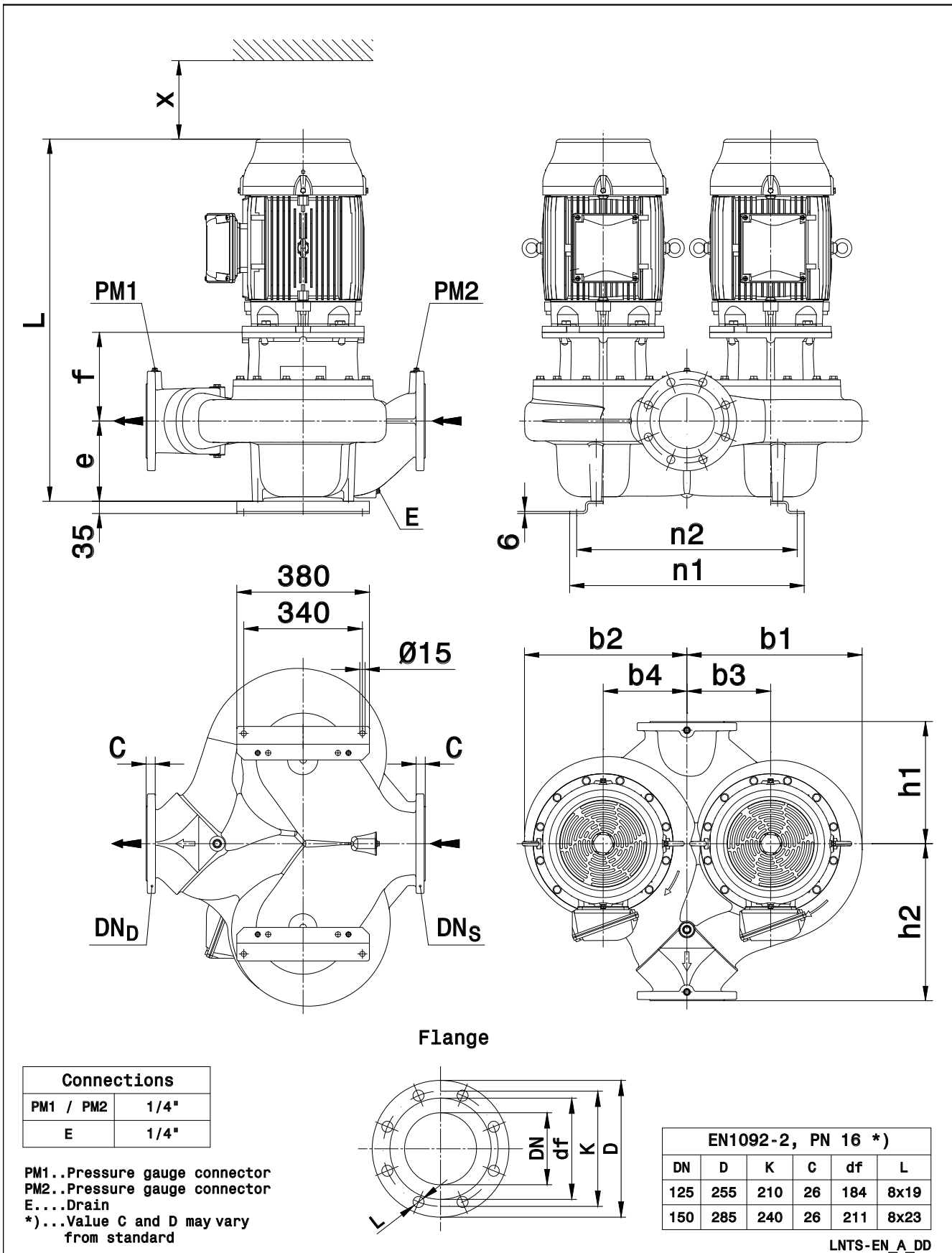
LNTS 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE LNTS..4	DIMENSIONS (mm)										B	H	L	k	WEIGHT kg
	DND	DNS	b1	f	h1	h2	h3	l1	p	x					
80-160/11A/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
80-200/22/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	713	130	237
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
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	760	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

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

LNTS-80-100_4p50-en_a_td

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



LNTS-EN_A_DD

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

PUMP TYPE LNTS..4	DIMENSIONS (mm)														WEIGHT (kg)
	DND	DNS	e	f	h1	h2	n1	n2	b1	b2	b3	b4	x	L	G
125-160/22/P	125	125	200	183	280	340	572	532	412	365	235	160	160	705	233
125-160/30/P	125	125	200	183	280	340	572	532	412	365	235	160	160	736	246
125-160/40/P	125	125	200	183	280	340	572	532	412	365	235	160	160	781	289
125-200/55/P	125	125	200	210	280	340	572	532	412	365	235	160	160	815	309
125-200/75/P	125	125	200	210	280	340	572	532	412	365	235	160	160	815	319
125-250/75/P	125	125	230	215	350	450	652	612	480	516	250	250	250	850	403
125-250/110/P	125	125	230	245	350	450	652	612	480	516	250	250	250	969	447
125-315/150/P	125	125	230	245	350	450	652	612	480	516	250	250	250	969	565
125-315/185/W	125	125	230	245	350	450	652	612	480	516	250	250	250	1029	667
125-315/220/W	125	125	230	245	350	450	652	612	480	516	250	250	250	1067	703
125-315/300/W	125	125	230	251	350	450	652	612	480	516	250	250	250	1138	802
150-200/55/P	150	150	230	225	375	425	672	632	430	478	235	235	235	860	397
150-200/75/P	150	150	230	225	375	425	672	632	430	478	235	235	235	860	406
150-200/110/P	150	150	230	255	375	425	672	632	430	478	235	235	235	979	450
150-250/110/P	150	150	230	240	350	450	632	592	416	465	218	218	218	964	424
150-250/150/P	150	150	230	240	350	450	632	592	416	465	218	218	218	964	508
150-315/185/W	150	150	230	254	350	450	672	632	466	503	240	240	240	1038	669
150-315/220/W	150	150	230	254	350	450	672	632	466	503	240	240	240	1076	705
150-315/300/W	150	150	230	254	350	450	672	632	466	503	240	240	240	1141	797
150-315/370/W	150	150	230	284	350	450	672	632	466	503	240	240	240	1260	1113

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

LNTS-125-150_4p50-en_a_td

LNT..H

(e-LNT WITH HYDROVAR)

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 LNT..H: an intelligent pumping system which assures high level performance with energy consumption tailored to the system's demand.

Benefits of e-LNT with HYDROVAR

Saving: LNT..H transforms the 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: 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). A wall-mounted HYDROVAR version is available for higher power outputs (up to 45 kW).

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

Key Features of the Hydrovar

- **No need for additional pressure sensors:**
The LNT..H is fitted with a pressure transmitter or differential pressure transmitters, depending on the application.
- **No need for special pumps or motors.**
- **No need for bypass or safety systems:**
The 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 LNT..H is fitted with anti-condensation devices which switch on when the pump is in standby in order to prevent condensation forming in the unit.



LNT..H SERIES (e-LNT WITH HYDROVAR)

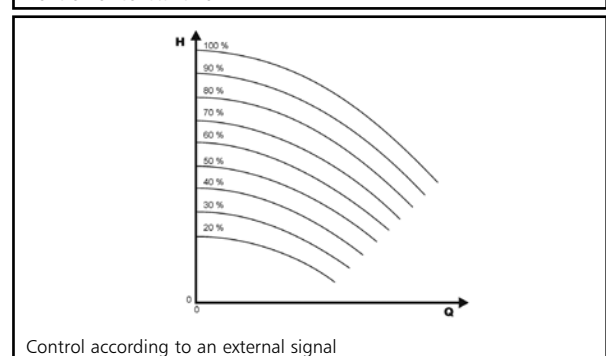
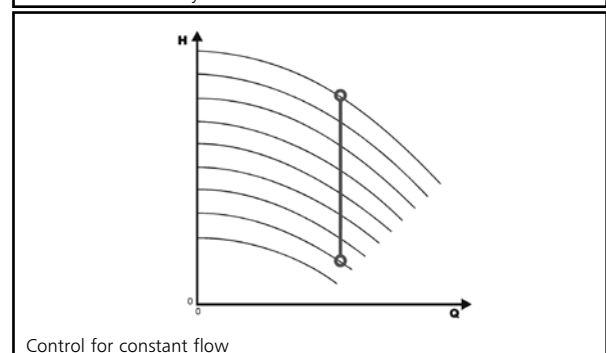
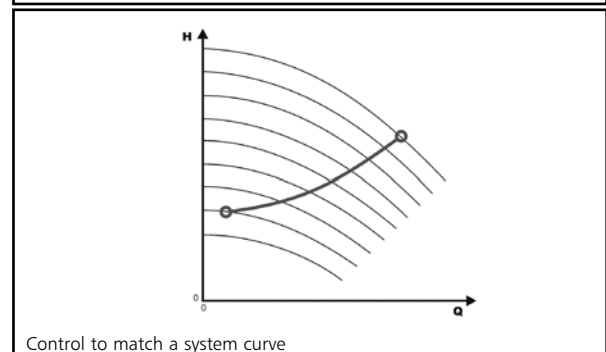
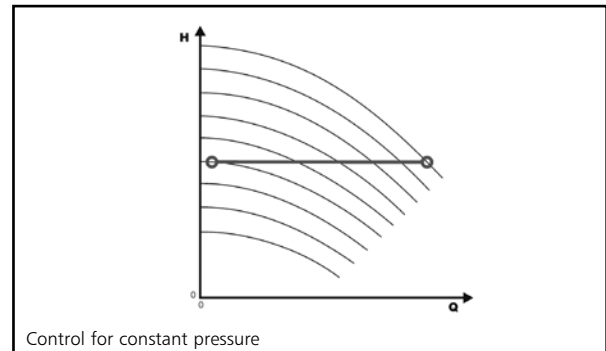
The basic function of the HYDROVAR device is to control the pump to meet the system demands.

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 all functions on an LCD in different languages (Italian, English, French, German, Spanish, Portuguese, Dutch).
- Send a signal to a remote control system which is proportional to the pressure and frequency.
- Communicate with another HYDROVAR or control system via an RS 485 interface.



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

SIZE LNTH..2	kW	VERSION	
		LNTEH	LNTSH
40-125/11	1,1	•	•
40-125/15	1,5	•	•
40-125/22	2,2	•	•
40-125/30	3	•	•
40-160/30	3	•	•
40-160/40	4	•	•
40-160/55	5,5	•	•
40-200/40	4	•	•
40-200/55	5,5	•	•
40-200/75	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	•	•
50-160/40	4	•	•
50-160/55	5,5	•	•
50-160/75	7,5	•	•
50-200/75	7,5	•	•
50-200/92	9,2	•	-
50-200/110A	11	-	•
50-200/110	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	•	•
65-160/75	7,5	•	•
65-160/92	9,2	•	-
65-160/110A	11	-	•
65-160/110	11	•	•
65-200/110	11	•	•
65-200/150	15	•	•
65-200/185	18,5	•	•
65-250/185	18,5	•	•
65-250/220	22	•	•

• = Available

LNTH_models-2p50-en_a_sc

SIZE LNTH..2	kW	VERSION	
		LNTEH	LNTSH
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	•	•
80-200/185	18,5	-	•
80-200/220	22	-	•
100-160/110	11	•	•
100-160/150	15	•	•
100-160/185	18,5	•	•
100-160/220	22	•	•
100-200/220	22	-	•

LEGEND

LNTEH : Extended shaft with HYDROVAR
(twin version).

LNTSH : Stub shaft with HYDROVAR (twin version).

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

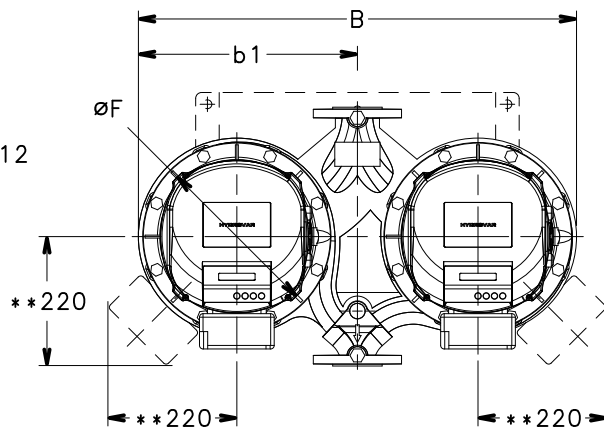
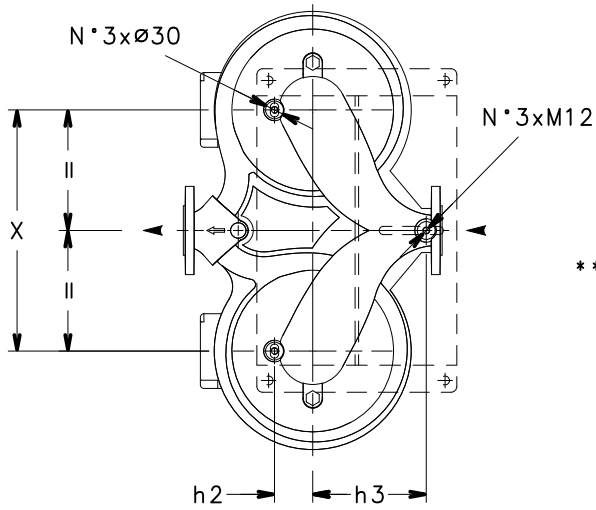
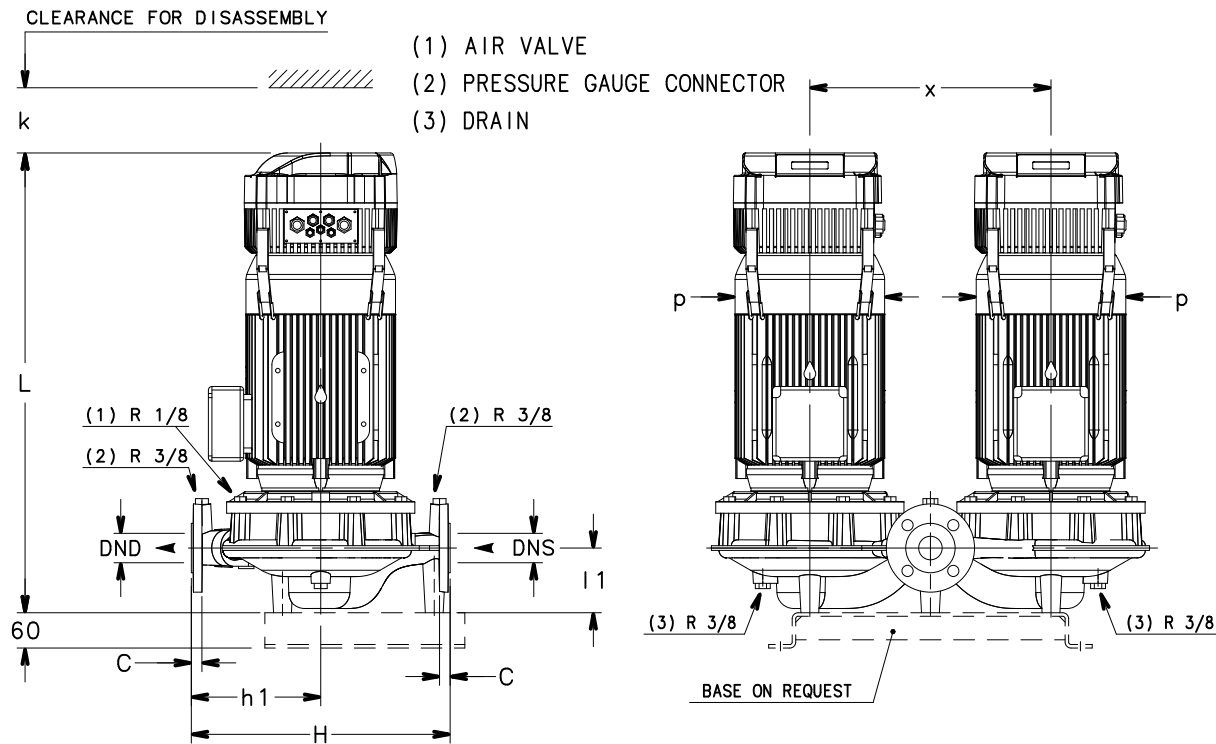
SIZE LNTH..4	kW	VERSION	
		LNTEH	LNTSH
40-125/02B	0,25	•	-
40-125/02A	0,25	•	-
40-125/02	0,25	•	-
40-125/03	0,37	•	-
40-160/03	0,37	•	-
40-160/05	0,55	•	•
40-160/07	0,75	•	•
40-200/05	0,55	•	•
40-200/07	0,75	•	•
40-200/11	1,1	•	•
40-250/11	1,1	-	•
40-250/15A	1,5	•	-
40-250/15	1,5	•	•
40-250/22	2,2	•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

SIZE LNTH..4	kW	VERSION	
		LNTEH	LNTSH
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	•	•
80-200/22	2,2	-	•
80-200/30	3	-	•
80-200/40	4	-	•
80-250/55A	5,5	-	•
80-250/55	5,5	-	•
80-250/75	7,5	-	•
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	-	•
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	-	•
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	-	•

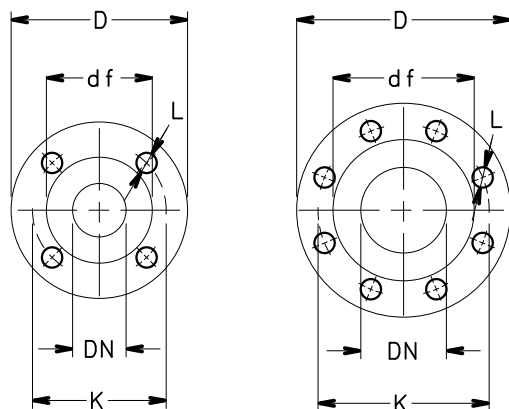
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LNTH_models-4p50-en_a_sc

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



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



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.

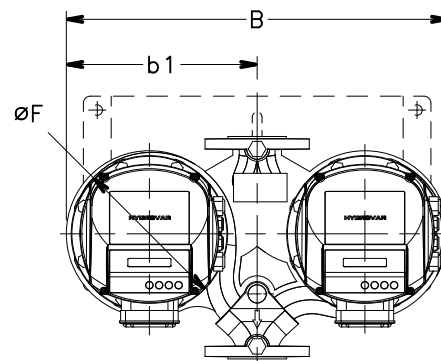
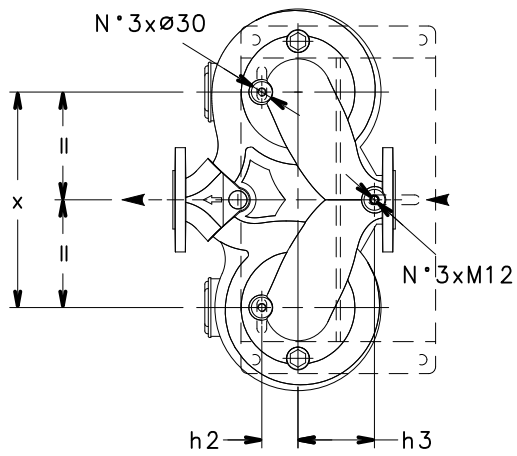
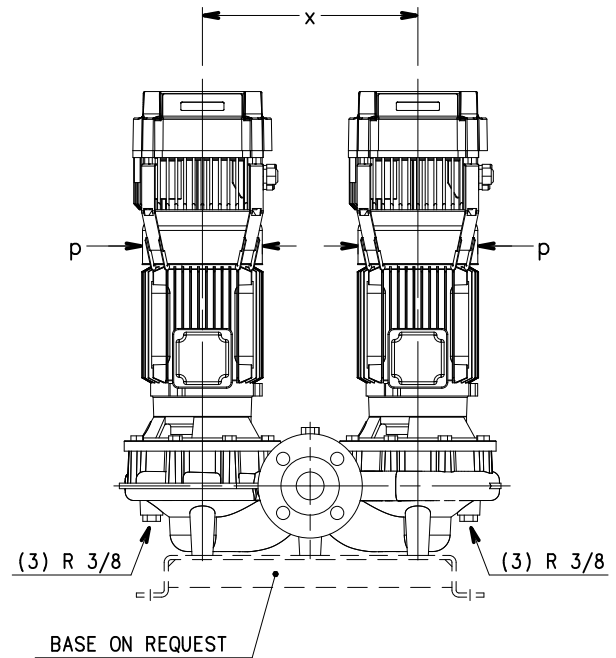
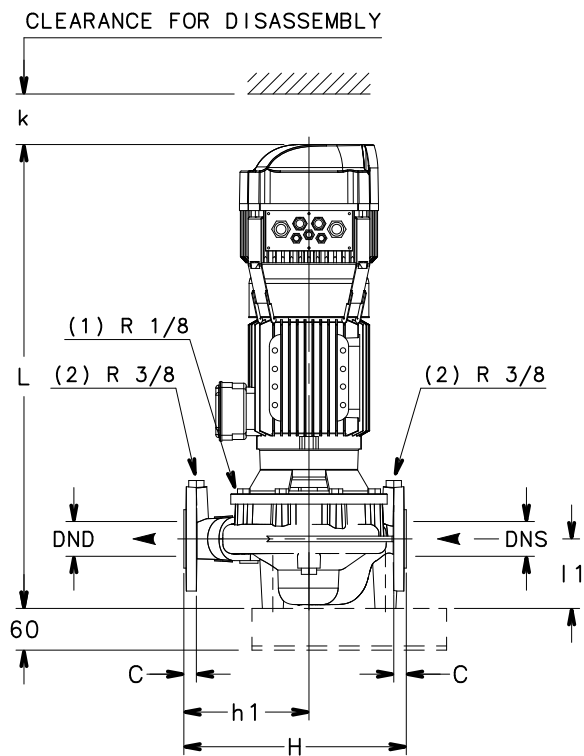
LNTEH 40, 50, 65, 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE LNTEH..2	DIMENSIONS (mm)									B	H	L	k ≥	ØF	WEIGHT kg
	DND	DNS	b1	h1	h2	h3	l1	p	x						
40-125/11/S	40	40	275	180	52	110	100	155	310	549	320	633	300	225	61,4
40-125/15/S	40	40	275	180	52	110	100	155	310	549	320	633	300	225	69,4
40-125/22/P	40	40	275	180	52	110	100	174	310	549	320	668	300	225	83,4
40-125/30/P	40	40	275	180	52	110	100	174	310	549	320	668	300	225	85,4
40-160/30/P	40	40	275	180	52	110	100	174	310	549	320	668	300	225	85,4
40-160/40/P	40	40	275	180	52	110	100	197	310	549	320	689	300	225	95,4
40-160/55/P	40	40	275	180	52	110	100	214	310	549	320	723	300	286	117,1
40-200/40/P	40	40	373	220	65	193	110	197	410	745	440	697	300	225	127,4
40-200/55/P	40	40	373	220	65	193	110	214	410	745	440	731	300	286	149,1
40-200/75/P	40	40	373	220	65	193	110	256	410	745	440	745	300	286	187,1
40-250/92/P	40	40	373	220	65	193	110	256	410	745	440	783	300	286	199,1
40-250/110/P	40	40	373	220	65	193	110	256	410	745	440	783	300	286	205,1
40-250/150/P	40	40	373	220	65	193	110	313	410	745	440	912	300	430	291
50-125/15/S	50	50	275	190	57	120	116	155	310	555	340	649	300	225	78,4
50-125/22/P	50	50	275	190	57	120	116	174	310	555	340	684	300	225	92,4
50-125/30/P	50	50	275	190	57	120	116	174	310	555	340	684	300	225	94,4
50-125/40/P	50	50	275	190	57	120	116	197	310	555	340	705	300	225	104,4
50-160/40/P	50	50	275	190	57	120	116	197	310	555	340	705	300	225	104,4
50-160/55/P	50	50	275	190	57	120	116	214	310	555	340	739	300	286	126,1
50-160/75/P	50	50	275	190	57	120	116	256	310	555	340	753	300	286	164,1
50-200/75/P	50	50	373	230	60	185	115	256	410	745	440	752	300	286	199,1
50-200/92/P	50	50	373	230	60	185	115	256	410	745	440	790	300	286	211,1
50-200/110/P	50	50	373	230	60	185	115	256	410	745	440	790	300	286	217,1
50-250/110/P	50	50	373	230	60	185	115	256	410	745	440	790	300	286	217,1
50-250/150/P	50	50	373	230	60	185	115	313	410	745	440	919	300	430	303
50-250/185/P	50	50	373	230	60	185	115	313	410	745	440	919	300	430	325
50-250/220/P	50	50	373	230	60	185	115	313	410	745	440	919	300	430	343
65-125/30/P	65	65	323	190	75	140	122	174	360	646	360	696	300	225	106,4
65-125/40/P	65	65	323	190	75	140	122	197	360	646	360	717	300	225	116,4
65-125/55/P	65	65	323	190	75	140	122	214	360	646	360	751	300	286	138,1
65-125/75/P	65	65	323	190	75	140	122	256	360	646	360	765	300	286	176,1
65-160/75/P	65	65	323	190	75	140	122	256	360	646	360	765	300	286	176,1
65-160/92/P	65	65	323	190	75	140	122	256	360	646	360	803	300	286	188,1
65-160/110/P	65	65	323	190	75	140	122	256	360	646	360	803	300	286	194,1
65-200/110/P	65	65	378	250	76	196	118	256	420	762	475	793	300	286	225,1
65-200/150/P	65	65	378	250	76	196	118	313	420	762	475	922	300	430	311
65-200/185/P	65	65	378	250	76	196	118	313	420	762	475	922	300	430	333
65-250/185/P	65	65	378	250	76	196	118	313	420	762	475	922	300	430	333
65-250/220/P	65	65	378	250	76	196	118	313	420	762	475	922	300	430	351
80-160/75/P	80	80	374	235	80	110	133	256	410	748	420	770	300	286	215,1
80-160/92/P	80	80	374	235	80	110	133	256	410	748	420	808	300	286	227,1
80-160/110/P	80	80	374	235	80	110	133	256	410	748	420	808	300	286	233,1
80-160/150/P	80	80	374	235	80	110	133	313	410	748	420	937	300	430	319
80-160/185/P	80	80	374	235	80	110	133	313	410	748	420	937	300	430	341
100-160/110/P	100	100	374	280	87	125	158	256	410	748	500	878	300	430	251
100-160/150/P	100	100	374	280	87	125	158	313	410	748	500	967	300	430	331
100-160/185/P	100	100	374	280	87	125	158	313	410	748	500	967	300	430	353
100-160/220/P	100	100	374	280	87	125	158	313	410	748	500	967	300	430	371

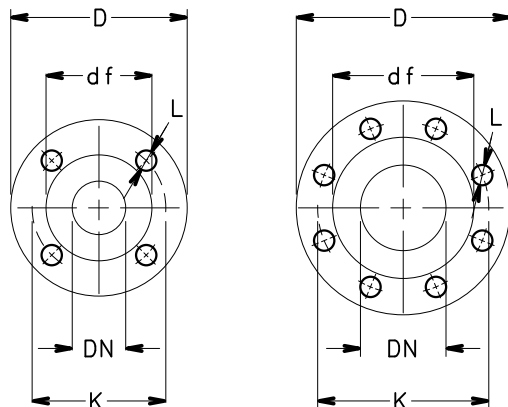
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

LNTEH-40-100_2p50-en_a_td

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.

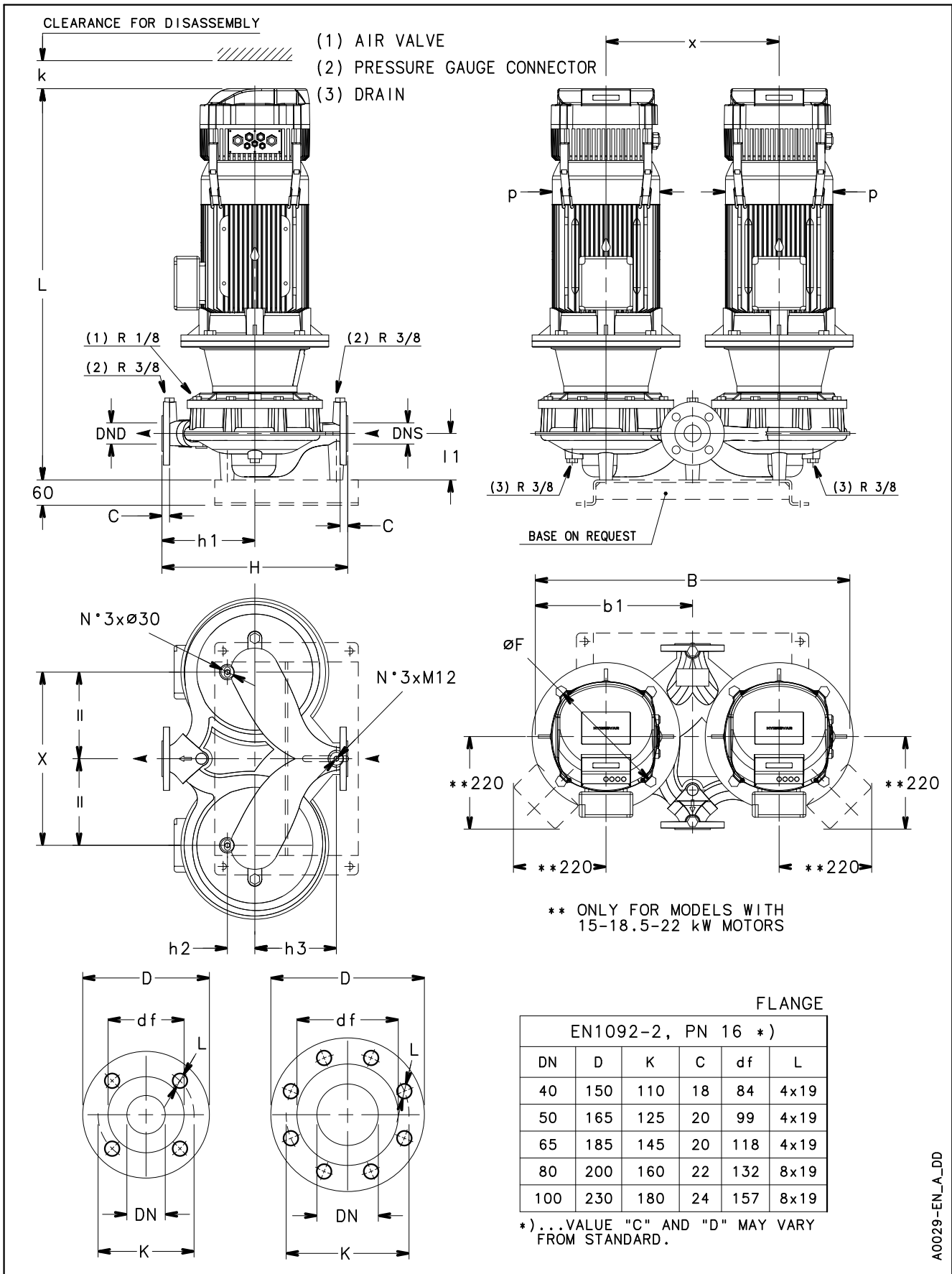
LNTEH 40, 50, 65, 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE LNTEH..4	DIMENSIONS (mm)										B	H	L	k ≥	ØF	WEIGHT kg
	DND	DNS	b1	h1	h2	h3	l1	p	x							
40-125/02B/S	40	40	275	180	52	110	100	140	310	549	320	601	300	225	55,4	
40-125/02A/S	40	40	275	180	52	110	100	140	310	549	320	601	300	225	55,4	
40-125/02/S	40	40	275	180	52	110	100	140	310	549	320	601	300	225	55,4	
40-125/03/S	40	40	275	180	52	110	100	140	310	549	320	601	300	225	57,4	
40-160/03/S	40	40	275	180	52	110	100	140	310	549	320	601	300	225	57,4	
40-160/05/S	40	40	275	180	52	110	100	155	310	549	320	633	300	225	61,4	
40-160/07/X	40	40	275	180	52	110	100	159	310	549	320	633	300	225	61,4	
40-200/05/S	40	40	373	220	65	193	110	155	410	745	440	641	300	225	93,4	
40-200/07/X	40	40	373	220	65	193	110	159	410	745	440	609	300	225	99,4	
40-200/11/P	40	40	373	220	65	193	110	174	410	745	440	676	300	225	111,4	
40-250/15A/P	40	40	373	220	65	193	110	174	410	745	440	676	300	225	119,4	
40-250/15/P	40	40	373	220	65	193	110	174	410	745	440	676	300	225	119,4	
40-250/22/P	40	40	373	220	65	193	110	214	410	745	440	700	300	225	139,4	
50-125/02A/S	50	50	275	190	57	120	116	140	310	555	340	617	300	225	64,4	
50-125/02/S	50	50	275	190	57	120	116	140	310	555	340	617	300	225	64,4	
50-125/03/S	50	50	275	190	57	120	116	140	310	555	340	617	300	225	66,4	
50-125/05/S	50	50	275	190	57	120	116	155	310	555	340	649	300	225	70,4	
50-160/05/S	50	50	275	190	57	120	116	155	310	555	340	649	300	225	70,4	
50-160/07/X	50	50	275	190	57	120	116	159	310	555	340	617	300	225	76,4	
50-160/11/P	50	50	275	190	57	120	116	174	310	555	340	684	300	225	92,4	
50-200/11A/P	50	50	373	230	60	185	115	174	410	745	440	683	300	225	123,4	
50-200/11/P	50	50	373	230	60	185	115	174	410	745	440	683	300	225	123,4	
50-200/15/P	50	50	373	230	60	185	115	174	410	745	440	683	300	225	131,4	
50-250/15/P	50	50	373	230	60	185	115	174	410	745	440	683	300	225	131,4	
50-250/22A/P	50	50	373	230	60	185	115	214	410	745	440	707	300	225	151,4	
50-250/22/P	50	50	373	230	60	185	115	214	410	745	440	707	300	225	151,4	
50-250/30/P	50	50	373	230	60	185	115	214	410	745	440	738	300	225	159,4	
65-125/03/S	65	65	323	190	75	140	122	140	360	646	360	629	300	225	78,4	
65-125/05/S	65	65	323	190	75	140	122	155	360	646	360	661	300	225	82,4	
65-125/07/X	65	65	323	190	75	140	122	159	360	646	360	629	300	225	88,4	
65-125/11/P	65	65	323	190	75	140	122	174	360	646	360	696	300	225	100,4	
65-160/11A/P	65	65	323	190	75	140	122	174	360	646	360	696	300	225	100,4	
65-160/11/P	65	65	323	190	75	140	122	174	360	646	360	696	300	225	100,4	
65-160/15/P	65	65	323	190	75	140	122	174	360	646	360	696	300	225	108,4	
65-200/15/P	65	65	378	250	76	196	118	174	420	762	475	686	300	225	139,4	
65-200/22A/P	65	65	378	250	76	196	118	214	420	762	475	710	300	225	159,4	
65-200/22/P	65	65	378	250	76	196	118	214	420	762	475	710	300	225	159,4	
65-250/22/P	65	65	378	250	76	196	118	214	420	762	475	710	300	225	159,4	
65-250/30/P	65	65	378	250	76	196	118	214	420	762	475	741	300	225	167,4	
65-250/40/P	65	65	378	250	76	196	118	214	420	762	475	786	300	225	205,4	
80-160/15B/P	80	80	374	235	80	110	133	174	410	748	420	701	300	225	147,4	
80-160/15A/P	80	80	374	235	80	110	133	174	410	748	420	701	300	225	147,4	
80-160/15/P	80	80	374	235	80	110	133	174	410	748	420	701	300	225	147,4	
80-160/22A/P	80	80	374	235	80	110	133	214	410	748	420	725	300	225	167,4	
80-160/22/P	80	80	374	235	80	110	133	214	410	748	420	725	300	225	167,4	
100-160/15/P	100	100	374	280	87	125	158	174	410	748	500	731	300	225	159,4	
100-160/22A/P	100	100	374	280	87	125	158	214	410	748	500	755	300	225	179,4	
100-160/22/P	100	100	374	280	87	125	158	214	410	748	500	755	300	225	179,4	
100-160/30/P	100	100	374	280	87	125	158	214	410	748	500	786	300	225	187,4	

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

LNTE-40-100_4p50-en_a_td

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



A0029-EN_A_DD

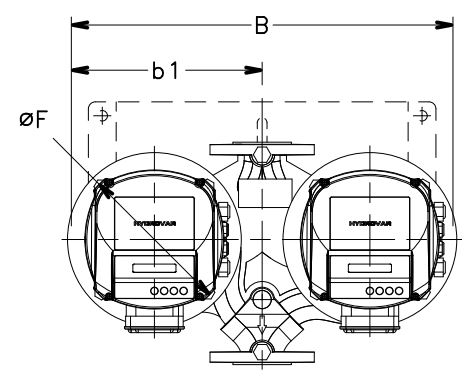
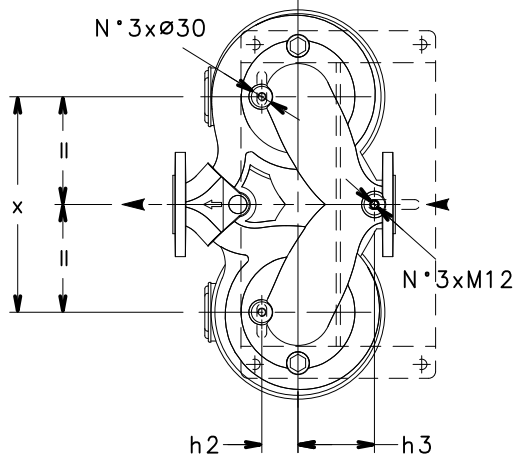
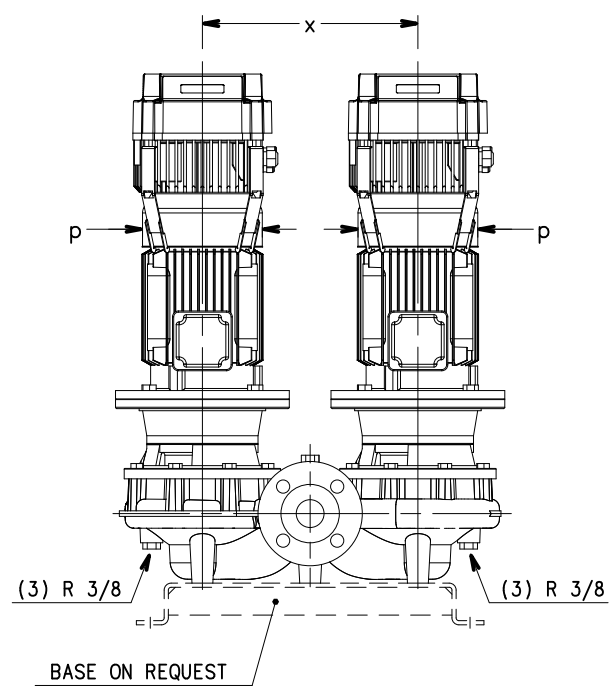
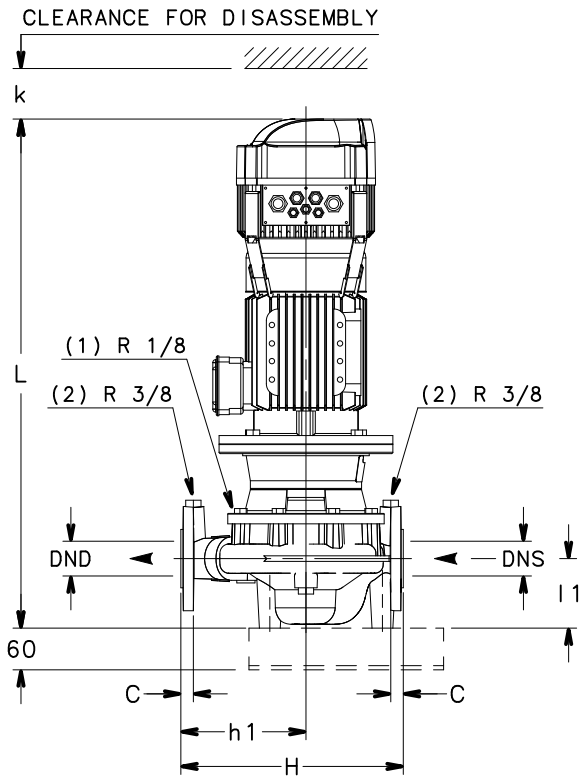
LNTSH 40, 50, 65 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE LNTSH..2	DIMENSIONS (mm)										B	H	L	k ≥	ØF	WEIGHT kg
	DND	DNS	b1	f	h1	h2	h3	l1	p	x						
40-125/11/S	40	40	275	155	180	52	110	100	155	310	549	320	688	300	225	67,4
40-125/15/S	40	40	275	155	180	52	110	100	155	310	549	320	688	300	225	75,4
40-125/22/P	40	40	275	155	180	52	110	100	174	310	549	320	723	300	225	89,4
40-125/30/P	40	40	275	165	180	52	110	100	174	310	549	320	733	300	225	99,4
40-160/30/P	40	40	275	165	180	52	110	100	174	310	549	320	733	300	225	99,4
40-160/40/P	40	40	275	165	180	52	110	100	197	310	549	320	754	300	225	105,4
40-160/55/P	40	40	275	192	180	52	110	100	214	310	549	320	837	300	286	135,1
40-200/40/P	40	40	373	163	220	65	193	110	197	410	745	440	762	300	225	137,4
40-200/55/P	40	40	373	190	220	65	193	110	214	410	745	440	845	300	286	167,1
40-200/75/P	40	40	373	190	220	65	193	110	256	410	745	440	837	300	286	205,1
40-250/110A/P	40	40	373	220	220	65	193	110	256	410	745	440	928	300	286	239,1
40-250/110/P	40	40	373	220	220	65	193	110	256	410	745	440	928	300	286	239,1
40-250/150/P	40	40	373	220	220	65	193	110	313	410	745	440	1034	300	430	311
50-125/15/S	50	50	275	155	190	57	120	116	155	310	555	340	704	300	225	84,4
50-125/22/P	50	50	275	155	190	57	120	116	174	310	555	340	739	300	225	98,4
50-125/30/P	50	50	275	165	190	57	120	116	174	310	555	340	749	300	225	108,4
50-125/40/P	50	50	275	165	190	57	120	116	197	310	555	340	770	300	225	114,4
50-160/40/P	50	50	275	165	190	57	120	116	197	310	555	340	770	300	225	114,4
50-160/55/P	50	50	275	192	190	57	120	116	214	310	555	340	853	300	286	143,1
50-160/75/P	50	50	275	192	190	57	120	116	256	310	555	340	845	300	286	182,1
50-200/75/P	50	50	373	192	230	60	185	115	256	410	745	440	834	300	286	217,1
50-200/110A/P	50	50	373	222	230	60	185	115	256	410	745	440	935	300	286	251,1
50-200/110/P	50	50	373	222	230	60	185	115	256	410	745	440	935	300	286	251,1
50-250/110/P	50	50	373	222	230	60	185	115	256	410	745	440	935	300	286	251,1
50-250/150/P	50	50	373	222	230	60	185	115	313	410	745	440	1041	300	430	323
50-250/185/P	50	50	373	222	230	60	185	115	313	410	745	440	1041	300	430	341
50-250/220/P	50	50	373	222	230	60	185	115	313	410	745	440	1041	300	430	363
65-125/30/P	65	65	323	171	190	75	140	122	174	360	646	360	761	300	225	120,4
65-125/40/P	65	65	323	171	190	75	140	122	197	360	646	360	782	300	225	126,4
65-125/55/P	65	65	323	198	190	75	140	122	214	360	646	360	865	300	286	157,1
65-125/75/P	65	65	323	198	190	75	140	122	256	360	646	360	857	300	286	195,1
65-160/75/P	65	65	323	198	190	75	140	122	256	360	646	360	857	300	286	195,1
65-160/110A/P	65	65	323	228	190	75	140	122	256	360	646	360	948	300	286	238,1
65-160/110/P	65	65	323	228	190	75	140	122	256	360	646	360	948	300	286	238,1
65-200/110/P	65	65	378	222	250	76	196	118	256	420	762	475	938	300	286	259,1
65-200/150/P	65	65	378	222	250	76	196	118	313	420	762	475	1044	300	430	331
65-200/185/P	65	65	378	222	250	76	196	118	313	420	762	475	1044	300	430	349
65-250/185/P	65	65	378	222	250	76	196	118	313	420	762	475	1044	300	430	349
65-250/220/P	65	65	378	222	250	76	196	118	313	420	762	475	1044	300	430	371

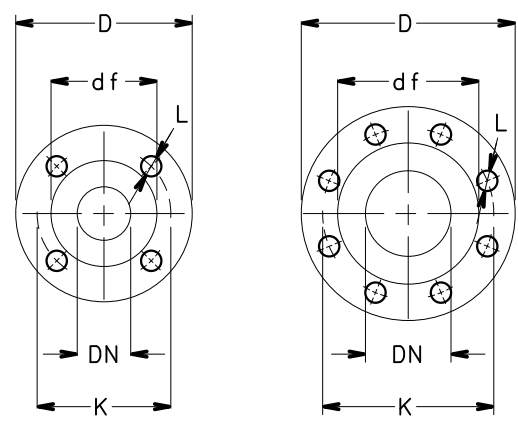
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

LNTSH-40-50-65_2p50-en_a_td

**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.

A0028-EN_A_DD

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

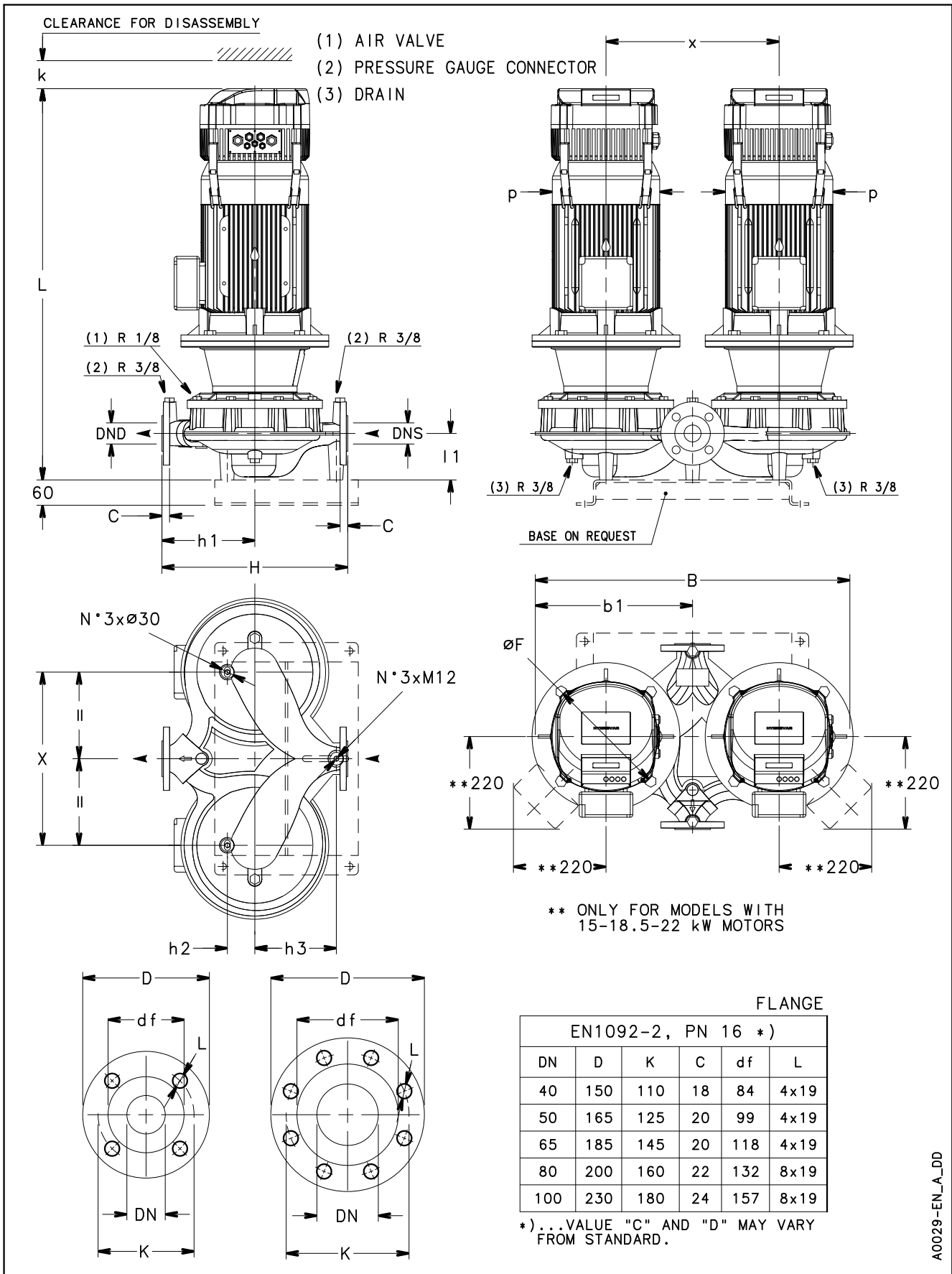
PUMP TYPE LNTSH..4	DIMENSIONS (mm)										B	H	L	k ≥	ØF	WEIGHT kg
	DND	DNS	b1	f	h1	h2	h3	l1	p	x						
40-160/05/S	40	40	275	155	180	52	110	100	155	310	549	320	688	300	225	67,4
40-160/07/X	40	40	275	155	180	52	110	100	159	310	549	320	656	300	225	73,4
40-200/05/S	40	40	373	152	220	65	193	110	155	410	745	440	696	300	225	99,4
40-200/07/X	40	40	373	152	220	65	193	110	159	410	745	440	664	300	225	105,4
40-200/11/P	40	40	373	152	220	65	193	110	174	410	745	440	731	300	225	117,4
40-250/11/P	40	40	373	152	220	65	193	110	174	410	745	440	731	300	225	117,4
40-250/15/P	40	40	373	152	220	65	193	110	174	410	745	440	731	300	225	125,4
40-250/22/P	40	40	373	162	220	65	193	110	214	410	745	440	765	300	225	147,4
50-125/05/S	50	50	275	155	190	57	120	116	155	310	555	340	704	300	225	76,4
50-160/05/S	50	50	275	155	190	57	120	116	155	310	555	340	704	300	225	76,4
50-160/07/X	50	50	275	155	190	57	120	116	159	310	555	340	672	300	225	82,4
50-160/11/P	50	50	275	155	190	57	120	116	174	310	555	340	739	300	225	94,4
50-200/11A/P	50	50	373	155	230	60	185	115	174	410	745	440	738	300	225	129,4
50-200/11/P	50	50	373	155	230	60	185	115	174	410	745	440	738	300	225	129,4
50-200/15/P	50	50	373	155	230	60	185	115	174	410	745	440	738	300	225	137,4
50-250/15/P	50	50	373	155	230	60	185	115	174	410	745	440	738	300	225	137,4
50-250/22A/P	50	50	373	165	230	60	185	115	214	410	745	440	772	300	225	158,4
50-250/22/P	50	50	373	165	230	60	185	115	214	410	745	440	772	300	225	158,4
50-250/30/P	50	50	373	165	230	60	185	115	214	410	745	440	803	300	225	167,4
65-125/05/S	65	65	323	161	190	75	140	122	155	360	646	360	716	300	225	89,4
65-125/07/X	65	65	323	161	190	75	140	122	159	360	646	360	684	300	225	95,4
65-125/11/P	65	65	323	161	190	75	140	122	174	360	646	360	751	300	225	107,4
65-160/11A/P	65	65	323	161	190	75	140	122	174	360	646	360	751	300	225	107,4
65-160/11/P	65	65	323	161	190	75	140	122	174	360	646	360	751	300	225	107,4
65-160/15/P	65	65	323	161	190	75	140	122	174	360	646	360	751	300	225	115,4
65-200/15/P	65	65	378	155	250	76	196	118	174	420	762	475	741	300	225	145,4
65-200/22A/P	65	65	378	165	250	76	196	118	214	420	762	475	775	300	225	167,4
65-200/22/P	65	65	378	165	250	76	196	118	214	420	762	475	775	300	225	167,4
65-250/22/P	65	65	378	165	250	76	196	118	214	420	762	475	775	300	225	167,4
65-250/30/P	65	65	378	165	250	76	196	118	214	420	762	475	806	300	225	175,4
65-250/40/P	65	65	378	165	250	76	196	118	214	420	762	475	851	300	225	213,4

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

LNTSH-40-50-65_4p50-en_a_td

LNTSH 80, 100 SERIES

DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES



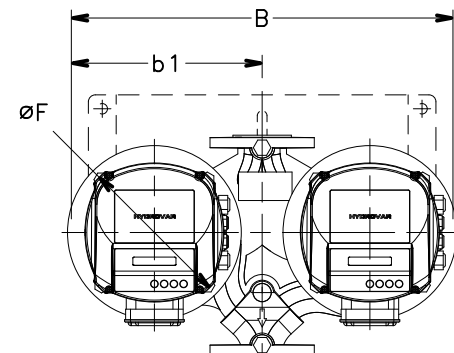
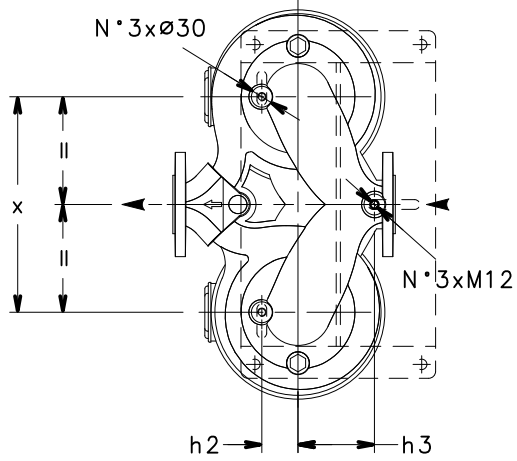
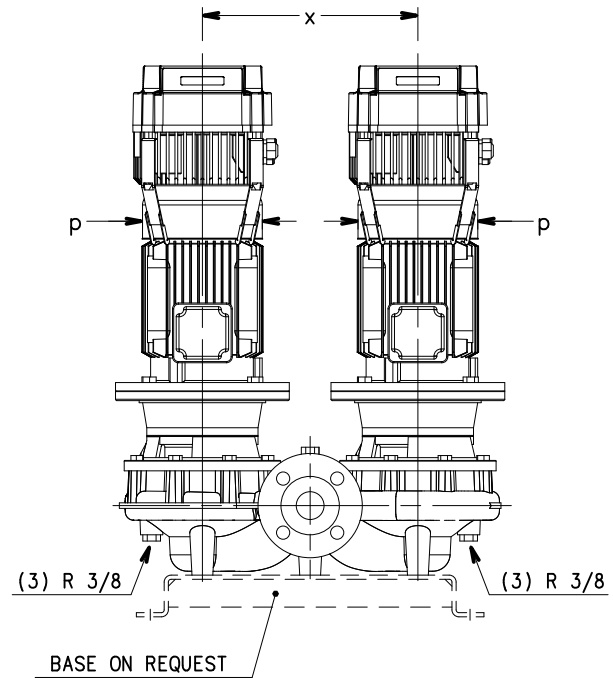
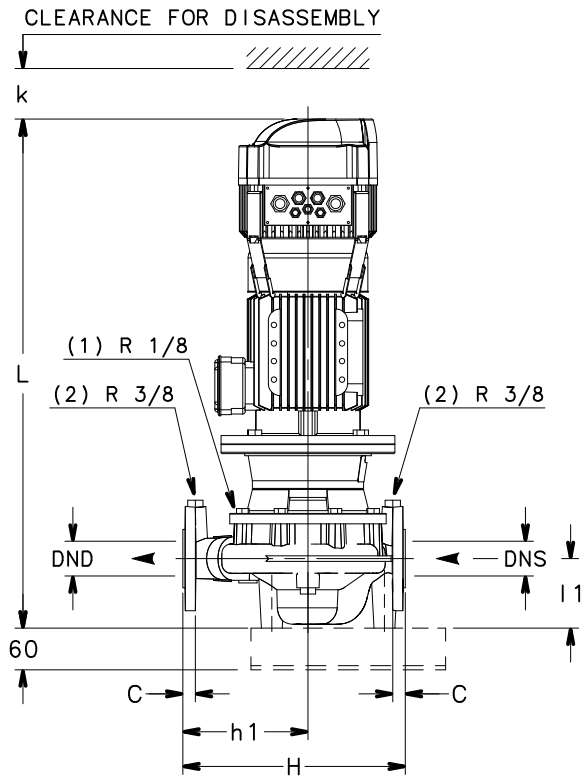
LNTSH 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE LNTSH..2	DIMENSIONS (mm)										B	H	L	k ≥	ØF	WEIGHT kg
	DND	DNS	b1	f	h1	h2	h3	l1	p	x						
80-160/75/P	80	80	374	192	235	80	110	133	256	410	748	420	862	300	286	224,1
80-160/110A/P	80	80	374	222	235	80	110	133	256	410	748	420	953	300	286	267,1
80-160/110/P	80	80	374	222	235	80	110	133	256	410	748	420	953	300	286	267,1
80-160/150/P	80	80	374	222	235	80	110	133	313	410	748	420	1059	300	430	339
80-160/185/P	80	80	374	222	235	80	110	133	313	410	748	420	1059	300	430	357
80-200/185/P	80	80	378	240	275	85	140	132	313	420	766	500	1076	300	430	357
80-200/220/P	80	80	378	240	275	85	140	132	313	420	766	500	1076	300	430	379
100-160/110/P	100	100	374	227	280	87	125	158	256	410	748	500	983	300	286	279,1
100-160/150/P	100	100	374	227	280	87	125	158	313	410	748	500	1089	300	430	351
100-160/185/P	100	100	374	227	280	87	125	158	313	410	748	500	1089	300	430	369
100-160/220/P	100	100	374	227	280	87	125	158	313	410	748	500	1089	300	430	391
100-200/220/P	100	100	381	240	300	90	160	179	313	420	783	550	1123	300	430	393

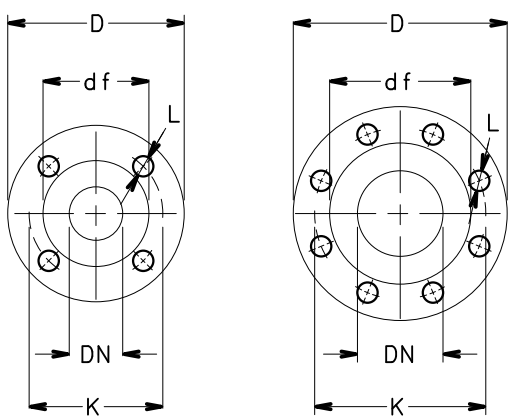
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

LNTSH-80-100_2p50-en_a_td

LNTSH 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.

A0028-EN_A_DD

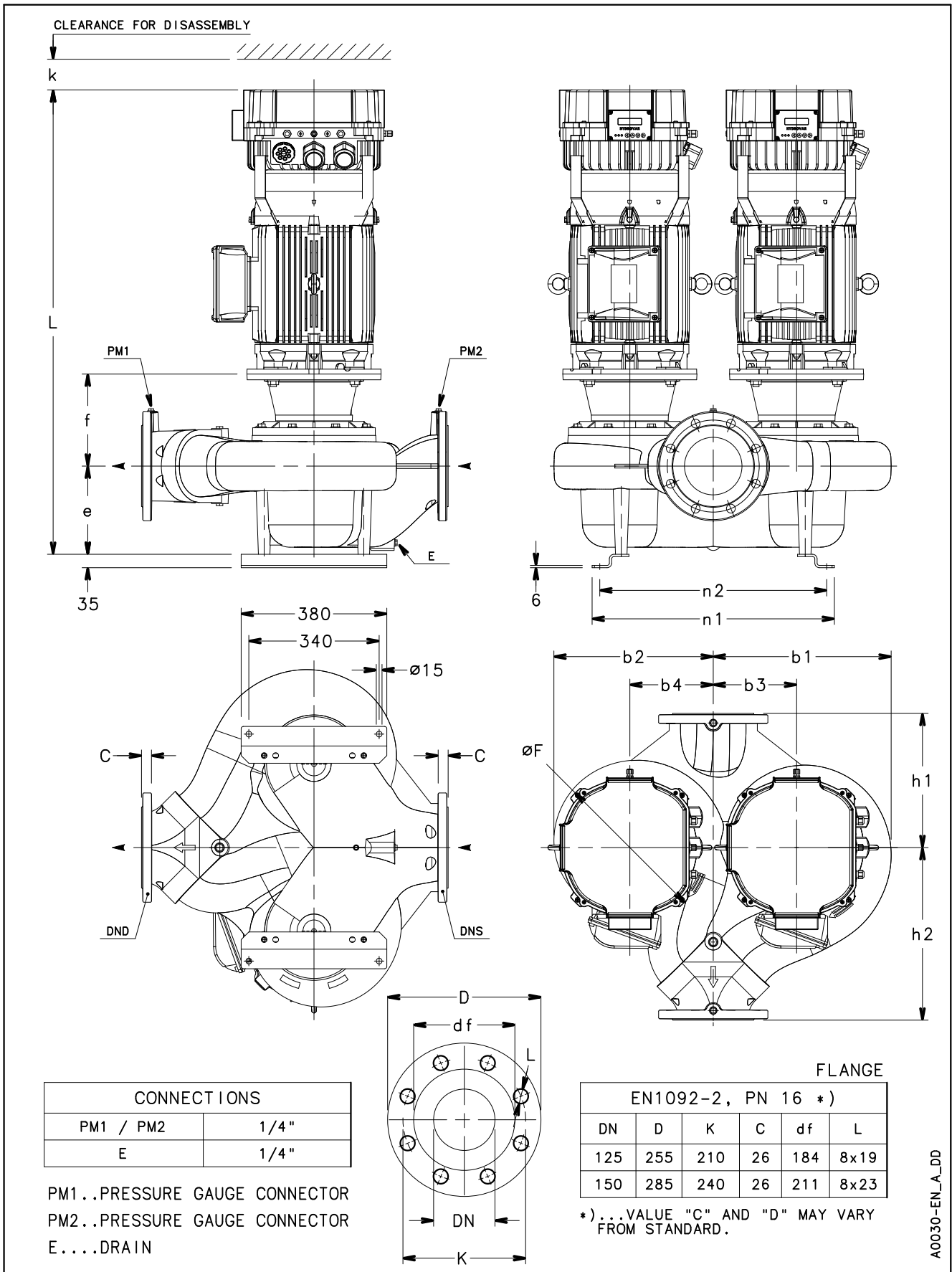
LNTSH 80, 100 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE LNTSH..4	DIMENSIONS (mm)										B	H	L	k ≥	ØF	WEIGHT kg
	DND	DNS	b1	f	h1	h2	h3	l1	p	x						
80-160/11A/P	80	80	374	155	235	80	110	133	174	410	748	420	756	300	225	145,4
80-160/11/P	80	80	374	155	235	80	110	133	174	410	748	420	756	300	225	145,4
80-160/15/P	80	80	374	155	235	80	110	133	174	410	748	420	756	300	225	153,4
80-160/22A/P	80	80	374	165	235	80	110	133	214	410	748	420	790	300	225	175,4
80-160/22/P	80	80	374	165	235	80	110	133	24	410	748	420	790	300	225	175,4
80-200/22/P	80	80	378	183	275	85	140	132	214	420	766	500	807	300	225	195,4
80-200/30/P	80	80	378	183	275	85	140	132	214	420	766	500	838	300	225	203,4
80-200/40/P	80	80	378	183	275	85	140	132	214	420	766	500	883	300	225	241,4
80-250/55A/P	80	80	378	210	275	85	140	132	256	420	766	500	917	300	286	247,1
80-250/55/P	80	80	378	210	275	85	140	132	256	420	766	500	917	300	286	247,1
80-250/75/P	80	80	378	210	275	85	140	132	256	420	766	500	917	300	286	255,1
100-160/15/P	100	100	374	160	280	87	125	158	174	410	748	500	786	300	225	166,4
100-160/22A/P	100	100	374	170	280	87	125	158	214	410	748	500	820	300	225	187,4
100-160/22/P	100	100	374	170	280	87	125	158	214	410	748	500	820	300	225	187,4
100-160/30/P	100	100	374	170	280	87	125	158	214	410	748	500	851	300	225	195,4
100-200/30/P	100	100	381	183	300	90	160	179	214	420	783	550	885	300	225	197,4
100-200/40/P	100	100	381	183	300	90	160	179	214	420	783	550	930	300	225	235,4
100-200/55A/P	100	100	381	210	300	90	160	179	256	420	783	550	964	300	286	261,1
100-200/55/P	100	100	381	210	300	90	160	179	256	420	783	550	964	300	286	261,1
100-250/55A/P	100	100	381	210	300	90	160	179	256	420	783	550	964	300	286	261,1
100-250/55/P	100	100	381	210	300	90	160	179	256	420	783	550	964	300	286	261,1
100-250/75/P	100	100	381	210	300	90	160	179	256	420	783	550	964	300	286	269,1
100-250/110/P	100	100	381	240	300	90	160	179	313	420	783	550	1083	300	286	379,1

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

LNTSH-80-100_4p50-en_a_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)															WEIGHT (kg)
	DND	DNS	e	f	h1	h2	n1	n2	b1	b2	b3	b4	x	L	ØF	G
125-160/22/P	125	125	200	183	280	340	572	532	412	365	235	160	300	875	225	237,4
125-160/30/P	125	125	200	183	280	340	572	532	412	365	235	160	300	906	225	250,4
125-160/40/P	125	125	200	183	280	340	572	532	412	365	235	160	300	951	225	293,4
125-200/55/P	125	125	200	210	280	340	572	532	412	365	235	160	300	985	286	317,1
125-200/75/P	125	125	200	210	280	340	572	532	412	365	235	160	300	985	286	327,1
125-250/75/P	125	125	230	215	350	450	652	612	480	516	250	250	300	1020	286	411,1
125-250/110/P	125	125	230	245	350	450	652	612	480	516	250	250	300	1139	286	455,1
125-315/150/P	125	125	230	245	350	450	652	612	480	516	250	250	300	1179	404	579
125-315/185/W	125	125	230	245	350	450	652	612	480	516	250	250	300	1239	404	681
125-315/220/W	125	125	230	245	350	450	652	612	480	516	250	250	300	1277	404	717
150-200/55/P	150	150	230	225	375	425	672	632	430	478	235	235	300	1030	286	405,1
150-200/75/P	150	150	230	225	375	425	672	632	430	478	235	235	300	1030	286	414,1
150-200/110/P	150	150	230	255	375	425	672	632	430	478	235	235	300	1149	286	458,1
150-250/110/P	150	150	230	240	350	450	632	592	416	465	218	218	300	1134	286	432,1
150-250/150/P	150	150	230	240	350	450	632	592	416	465	218	218	300	1174	404	522
150-315/185/W	150	150	230	254	350	450	672	632	466	503	240	240	300	1248	404	683
150-315/220/W	150	150	230	254	350	450	672	632	466	503	240	240	300	1286	404	719

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

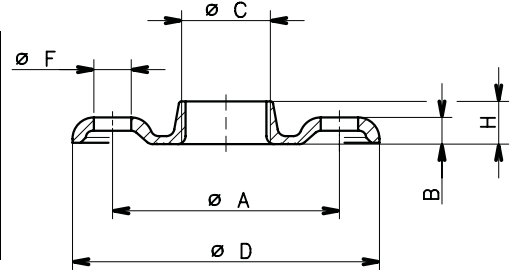
LNTSH-125-150_4p50-en_a_td

ACCESSORIES

LNT SERIES ROUND THREADED COUNTERFLANGES KIT ACCORDING TO EN 1092-1

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

Lne-Lnt-ctf-tonde-f-en_a_td

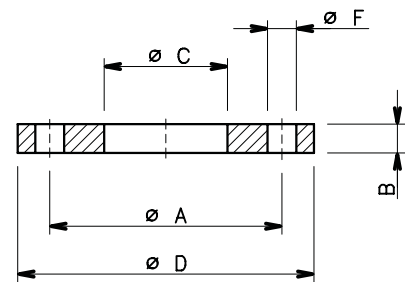


04430_B_DD

LNT SERIES ROUND WELD COUNTERFLANGES KIT ACCORDING TO EN 1092-1

DN	CODE KIT	ø C	DIMENSIONS (mm)				HOLES			PN
			ø A	B	ø D	ø F	N°			
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_a_td

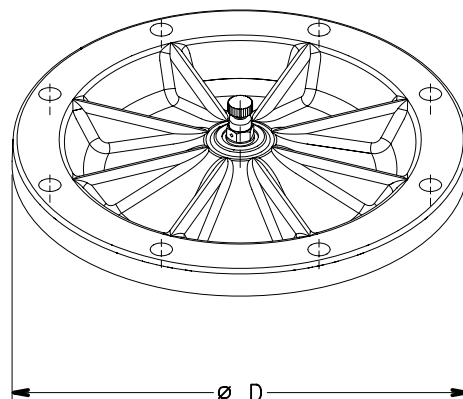


04431_A_DD

LNT (40 ÷ 100) SERIES BLIND FLANGE KIT

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

LNT-flangia-cieca-en_a_td

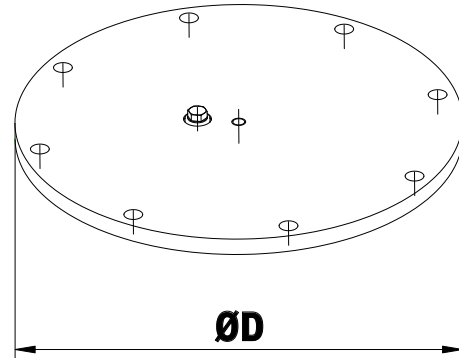


05262_A_DD

LNT 125, 150 SERIES BLIND FLANGE KIT

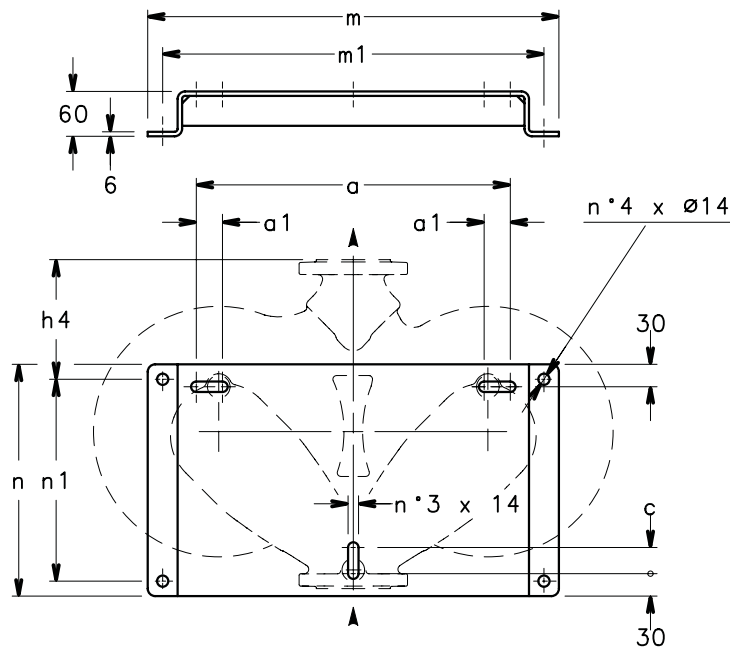
FLANGE KIT		
POMPA TIPO	CODE	Ø D
LNTS 125-160	713740900	322
LNTS 125-200		
LNTS 125-250		
LNTS 150-200		
LNTS 150-250		
LNTS 125-315	713740910	401
LNTS 150-315		

LNTS-BLFL-en_a_td



LNTS-BLFL-EN_A_DD

LNT (40 ÷ 100) SERIES MOUNTING BASE KIT

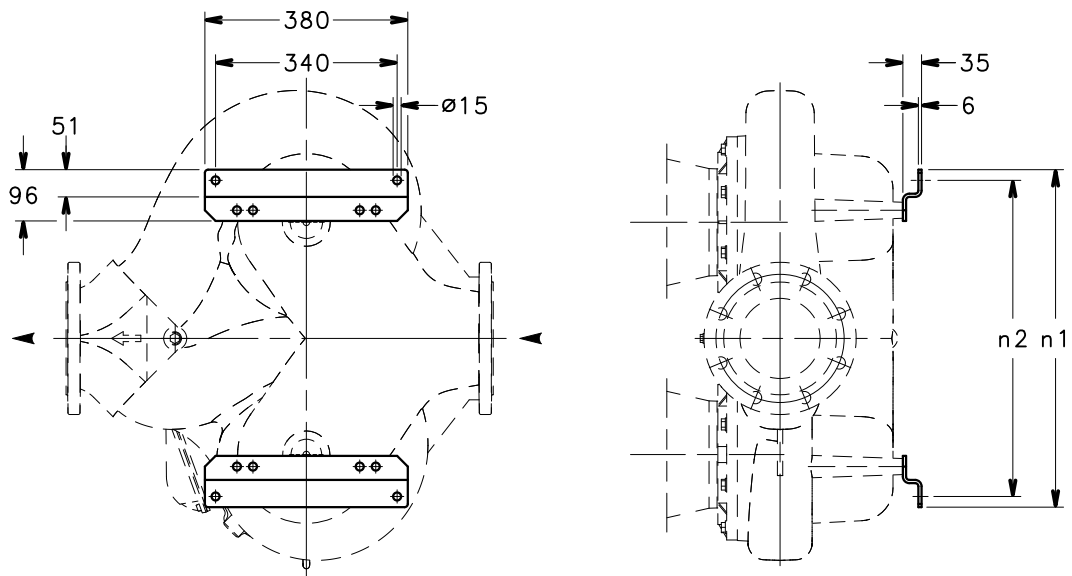


PUMP (LNT) SIZE	CODE KIT	DIMENSIONS (mm)							
		a	a1	c	h4	m	m1	n	n1
40-125 / 40-160	109398610	370	35	60	128	500	460	280	240
50-125 / 50-160		370	35	60	133	500	460	280	240
65-125 / 65-160		370	35	60	115	500	460	280	240
80-160	109398620	420	10	95	155	550	510	340	300
100-160		420	10	95	193	550	510	340	300
40-200 / 40-250		420	10	95	155	550	510	340	300
50-200 / 50-250		420	10	95	170	550	510	340	300
65-200 / 65-250		420	10	95	174	550	510	340	300
80-200 / 80-250		420	10	95	190	550	510	340	300
100-200 / 100-250		420	10	95	210	550	510	340	300

LNT-piede-en_a_td

05260_A_DD

LNT 125, 150 SERIES MOUNTING BASE KIT



PUMP TYPE	CODE KIT	DIMENSIONS (mm)	
		n1	n2
LNTS 125-160	713460080	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_a_td

LNTS125-150-BASE_A_DD

REPORTS AND DECLARATIONS

REPORTS AND DECLARATIONS

i) Test reports

- a) **Factory Test Report** (Lowara identity code: 1A)
(not available for all pump types; contact Customer Service in advance)
- Test report compiled at the end of the assembly line, including flow-head performance test (ISO 9906:2012 – Grade 3B) and tightness test.
- b) **Audit Test Report** (Lowara identity code: 1B)
- Test report for electric pumps compiled in the test room, comprising flow-head-pump input-pump efficiency performance test (ISO 9906:2012 – Grade 3B)
- c) **NPSH Test Report** (Lowara identity code: 1A / CTF-NP)
(unavailable for submerged or submergible pumps)
- Test report for electric pumps compiled in the test room, comprising flow-NPSH performance test (ISO 9906:2012 – Grade 3B)
- d) **Noise Test Report** (Lowara identity code: 1A / CTF-RM)
(unavailable for submerged pumps)
- Report indicating sound pressure and power measurements (EN ISO 20361, EN ISO 11203, EN ISO 4871) using the
• intensimetric (EN ISO 9614-1, EN ISO 9614-2), or
• phonometric method.
- 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** (Lowara identity code: CTF-21)
- does not include test results on supplied or similar products.
- b) **EN 10204:2004 - type 2.2** (Lowara identity code: CTF-22)
- includes test results (materials certificates) on similar products.
- c) **EN 10204:2004 - type 3.1** (Lowara identity code: 1A / CTF-31 or 1B / CTF-31)
- includes test report (*Factory Test Report* or *Audit Test Report*), list of materials, EC Declaration of Conformity (in addition to the one accompanying the product), certificates / declarations concerning materials in contact with water.

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 at pages 126-127 of this catalogue. To reduce it to a minimum, especially in cases of high suction head (over 4-5 m.) or within the operating limits with high flow rates, we recommend using a suction line having a larger diameter than that of the pump's suction port. It is always a good idea to position the pump as close as possible to the liquid to be pumped.

Make the following calculation:

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

Flow rate required: 25 m³/h

Head for required delivery: 70 m.

Suction lift: 3,5 m.

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

For water at 15 °C

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

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

By substituting the parameters in formula $\textcircled{1}$ 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 ρ DENSITY OF WATER TABLE

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

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

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

FLOW RESISTANCE TABLE OF FLOW RESISTANCE IN BENDS, VALVES AND GATES

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

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

G-a-pcv-en_a_th

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

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

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

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

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

VOLUMETRIC CAPACITY

Litres per minute l/min	Cubic metres per hour m ³ /h	Cubic feet per hour ft ³ /h	Cubic feet per minute ft ³ /min	Imperial gallon per minute Imp. gal/min	U.S. gallon per minute US gal/min
1,000	0,0600	2,1189	0,0353	0,2200	0,2642
16,6667	1,0000	35,3147	0,5886	3,6662	4,4029
0,4719	0,0283	1,0000	0,0167	0,1038	0,1247
28,3168	1,6990	60,0000	1,0000	6,2288	7,4805
4,5461	0,2728	9,6326	0,1605	1,0000	1,2009
3,7854	0,2271	8,0208	0,1337	0,8327	1,0000

PRESSURE AND HEAD

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

LENGTH

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

VOLUME

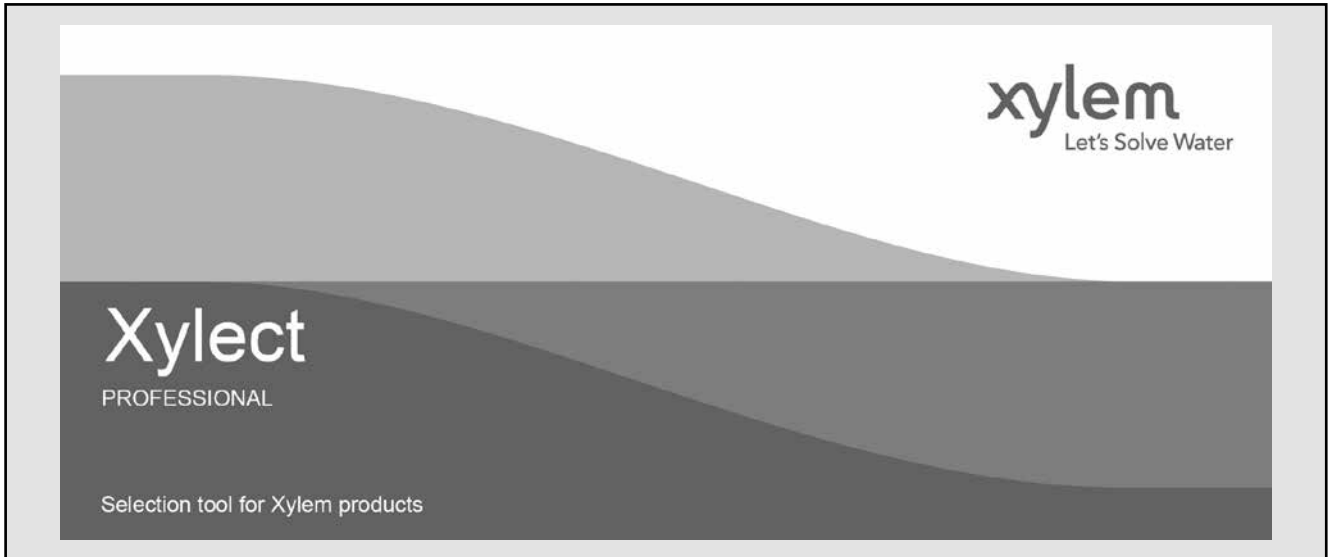
Cubic metre m ³	Litre L	Millilitre ml	Imperial gallon imp. gal.	U.S. gallon US gal.	Cubic foot ft ³
1,0000	1 000,0000	1 x 10 ⁶	219,9694	264,1720	35,3147
0,0010	1,0000	1 000,0000	0,2200	0,2642	0,0353
1 x 10 ⁻⁶	0,0010	1,0000	2,2 x 10 ⁻⁴	2,642 x 10 ⁻⁴	3,53 x 10 ⁻⁵
0,0045	4,5461	4 546,0870	1,0000	1,2009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

TEMPERATURE

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

G-at_pp-en_b_sc

**FURTHER PRODUCT SELECTION
AND DOCUMENTATION**
Xylect™



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

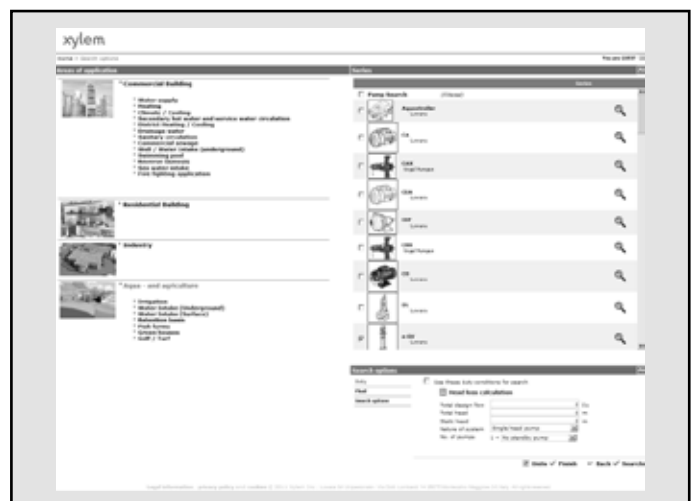
The possibility to search by applications and the detailed information output given makes it easy to make the optimal selection without having detailed knowledge about the Lowara products.

The search can be made by:

- Application
- Product type
- Duty point

Xylect™ gives a detailed output:

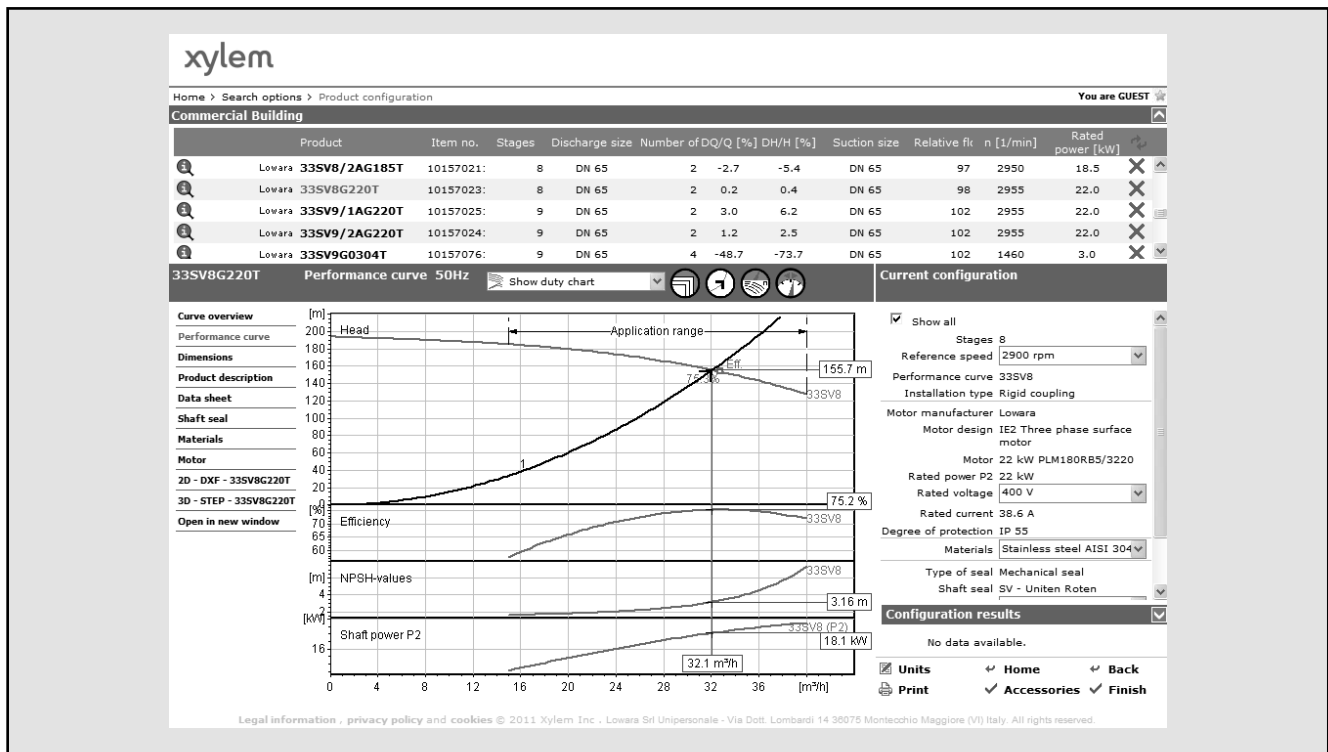
- List with search results
- Performance curves (flow, head, power, efficiency, NPSH)
- Motor data
- Dimensional drawings
- Options
- Data sheet printouts
- Document downloads incl dxf files



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

FURTHER PRODUCT SELECTION AND DOCUMENTATION

Xylect™



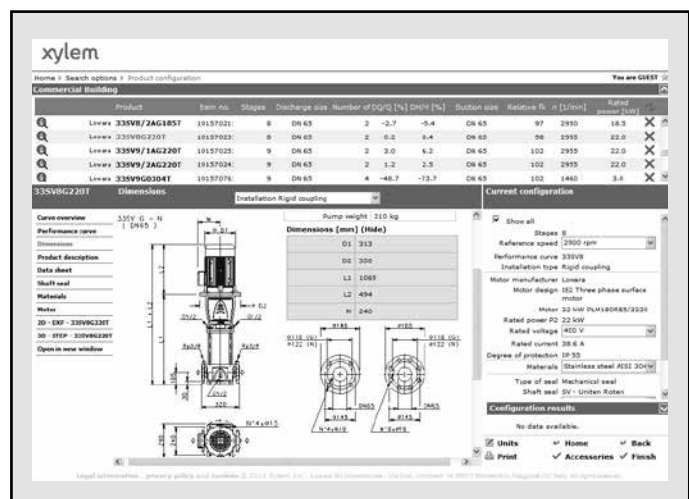
The detailed output makes it easy to select the optimal pump from the given alternatives.

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

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

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

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



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

Xylem |'zīləm|

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

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

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