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Let's Solve Water

50 Hz

e-LNT Series

TWIN IN-LINE ELECTRIC PUMPS

ErP 2009/125/EC

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Cod. 191027231 Rev. H Ed.05/2024

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Directive 2009/125/EC of the European Union

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

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

The following tables show the Regulations that define the requirements applicable to Lowara products.

- Some types of **pump** used for pumping clean water:

Regulations	From	Target
(EU) N. 547/2012 and subsequent updates	1 January 2015	**MEI** ≥ 0,4

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

Regulations	From	Target
(EC) N. 641/2009 and subsequent updates	1 August 2015	**EEI** < 0,23

- **Three-phase motors** with frequency 50 or 60 or 50/60 Hz and voltages between 50 and 1000 V (S1 and D.O.L.):

Regulations	From	Target
(EU) 2019/1781 and subsequent updates	1 July 2023	**IE2**: motors with a rated output ≥ 0,12 and < 0,75 kW **IE3**: motors with a rated output ≥ 0,75 and < 75 kW **IE4**: motors with a rated output ≥ 75 and < 201 kW **IE3**: motors with a rated output ≥ 201 and < 1000 kW

- **Single-phase motors** with frequency 50 or 60 or 50/60 Hz and voltages between 50 and 1000 V (S1 and D.O.L.):

Regulations	From	Target
(EU) 2019/1781and subsequent updates	1 July 2023	**IE2**: motors with a rated output ≥ 0,12

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

Regulations	From	Target
(EU) 2019/1781and subsequent updates	1 July 2021	**IE2**

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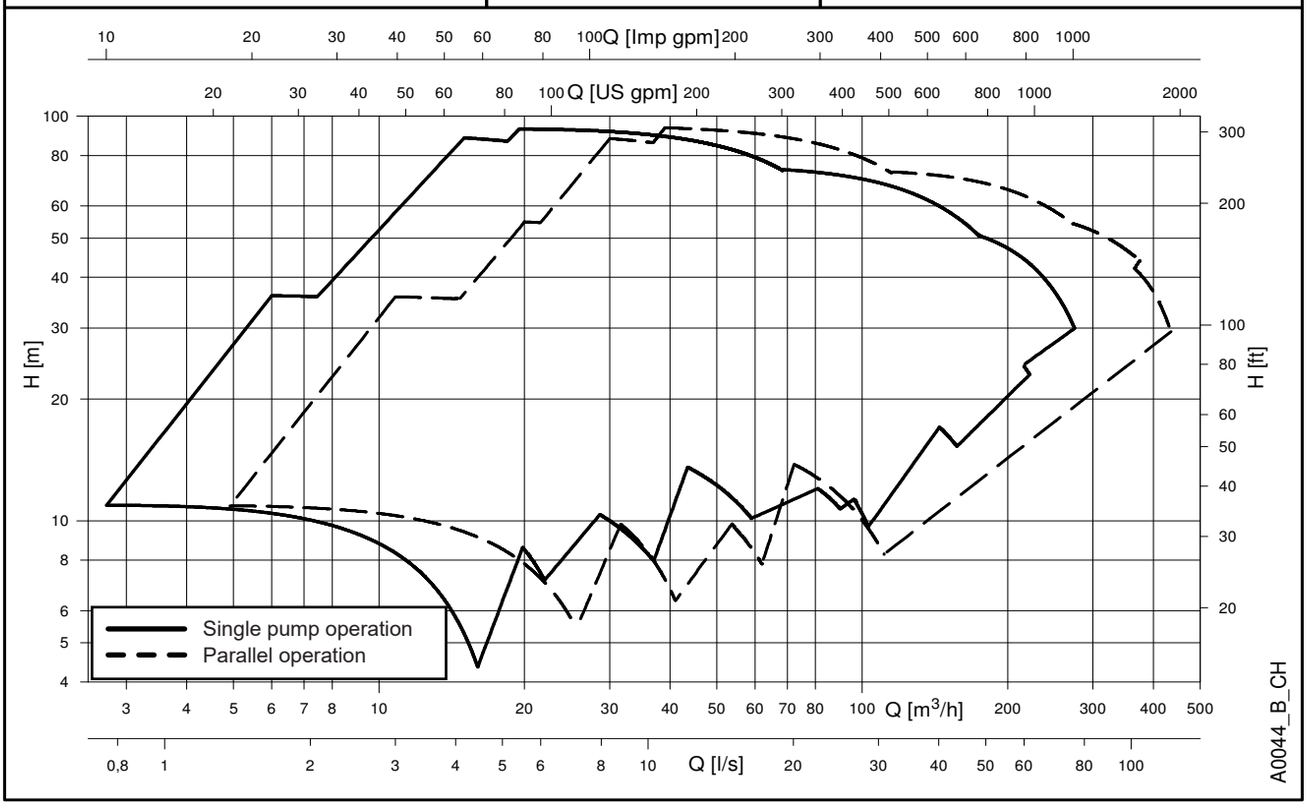
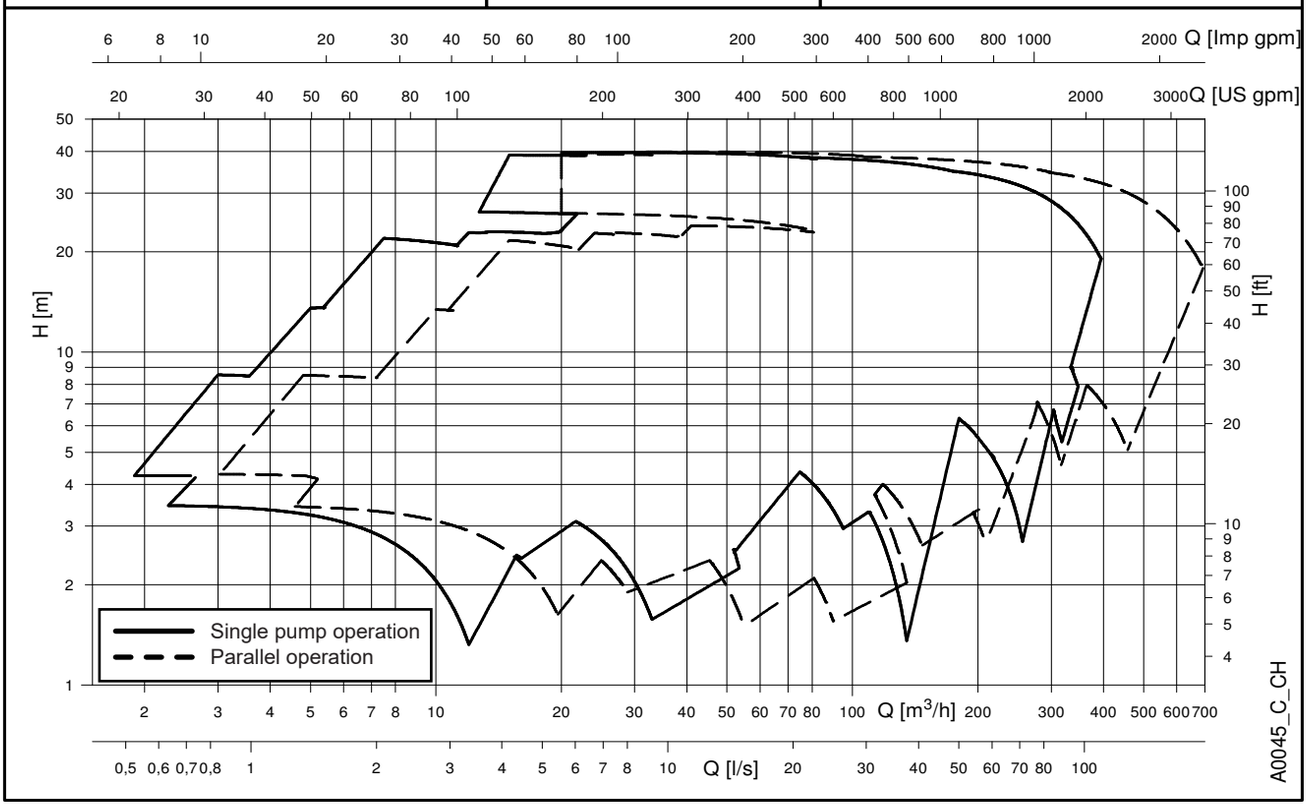
e-LNT SERIES
HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 2 POLES

LNT	~ 2950 [rpm]	ISO 9906:2012 - Grade 3B



HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES

LNT	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 high efficiency motors; and are available in the following constructions:

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

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

Hydraulic specifications

- Maximum delivery
  - one pump running:
    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: **95** m (2-pole range).
  40 m (4-pole range).
- Hydraulic performance compliant with ISO 9906:2012 – Grade 3B.
  Grade 2B and 1B available upon request.
- Fluid temperature range:
  - standard version (with mechanical seal BQ7EGG-WA and EPDM gasket) **-25 to +120 °C**
  - versions on request (depending on mechanical seal and gasket) **-20* or -25 to +120 or +140 °C**.
- Maximum operating pressure:
  - standard version (with mechanical seal BQ7EGG-WA)
    16 bar @ 90 °C and 10 bar @ 120 °C
  - versions on request (with other mechanical seals)
    16 bar @ 120 °C and 14,9 bar @ 140 °C

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

Motor specifications

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

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

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

Applications

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

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

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

- **Water Supply**
  - Pressure boosting in commercial buildings.
  - Irrigation systems.

Benefits

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

- **Performances**: the e-LNT pumps are ErP 2015 compliant, equipped with high efficiency 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 drive-equipped versions, the easy and quick maintenance, allow to reduce the operation and maintenance cost and to save energy when the pump is working or is at rest.

- **Pre-post sales support**: we are continuously working close to our customers to help them in selecting the right pump for the specific application. A user-friendly selection software is available on the website. Experienced engineers are fully dedicated to big projects.

- **Potable water use**: all pumps equipped with standard mechanical seal are certified for drinking water use (ACS and D.M.174/04).

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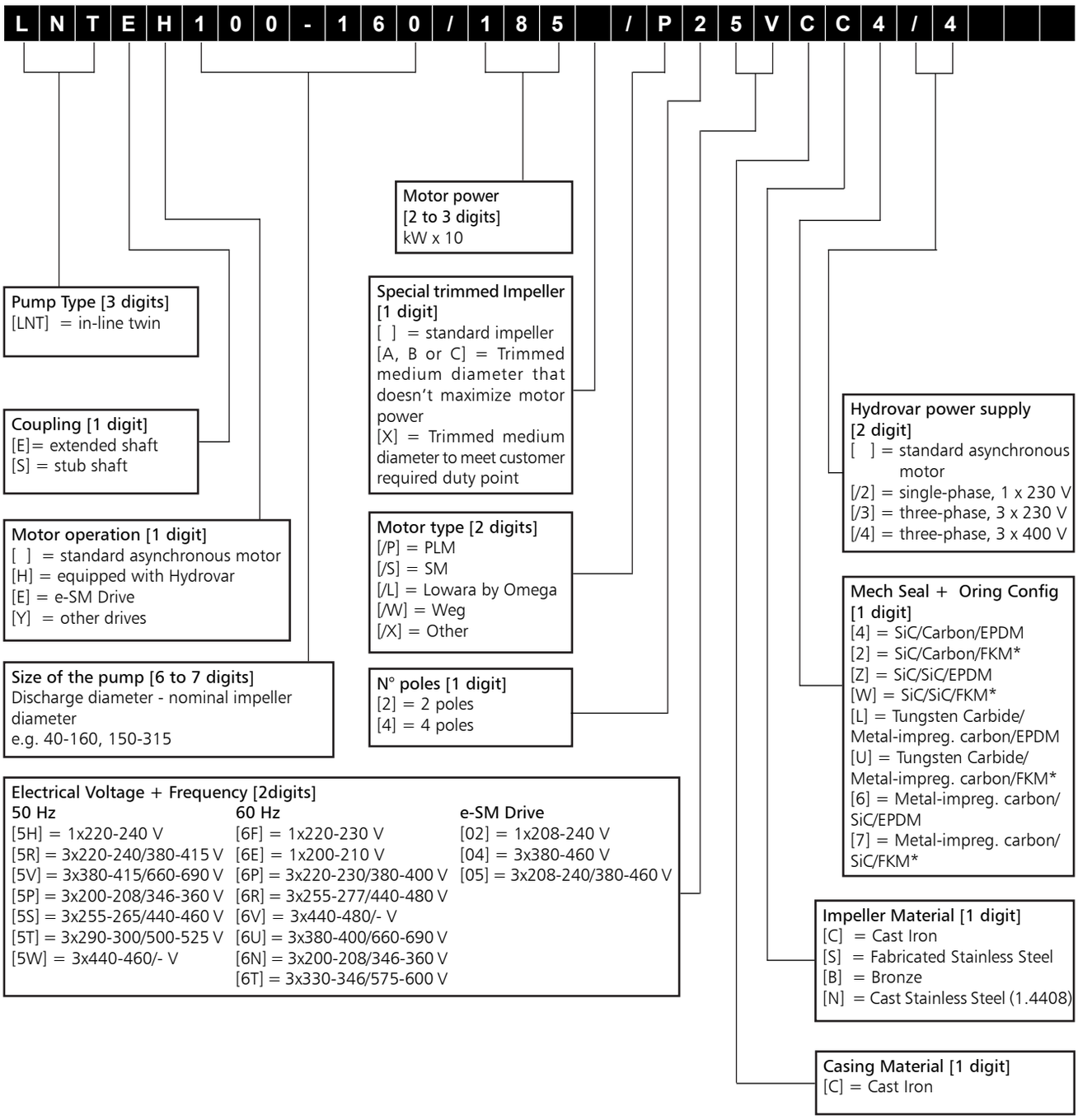
e-LNT SERIES
IDENTIFICATION CODE



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

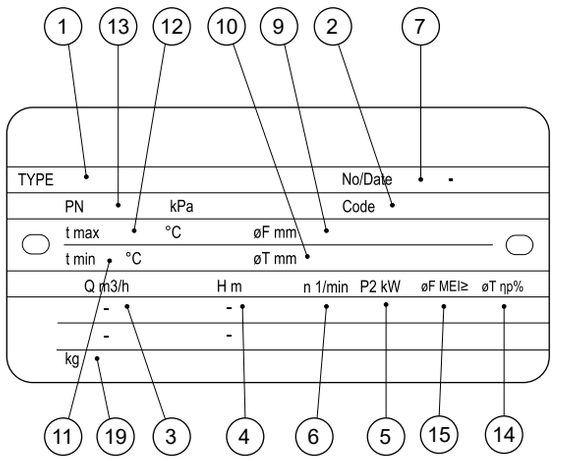
EXAMPLES

LNTS 125-160/22/L45RCC4
In-line twin, electric pump stub shaft coupling, DN125 nominal discharge port, 160 mm nominal impeller diameter, 2,2 kW rated motor power, Lowara by Omega IE3 model, 4 pole, 50 Hz 220-240/380-415 V, cast iron casing, cast iron impeller, Silicon Carbide/Carbon/EPDM mechanical seal.

LNTS 150-200/55/L45VCB4
In-line twin, electric pump stub shaft coupling, DN150 nominal discharge port, 200 mm nominal impeller diameter, 5,5kW rated motor power, Lowara by Omega IE3 model, 4 pole, 50 Hz 380-415/660-690 V, cast iron casing, bronze impeller, Silicon Carbide/Carbon/EPDM mechanical seal.

e-LNT SERIES
RATING PLATE

ELECTRIC PUMP



LEGEND

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

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

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

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

• = Available

LNT_models-2p50-en_c_sc

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

LEGEND

LNTE : Extended shaft (twin version).
LNTS : Stub shaft (twin version).

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

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

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

• = Available

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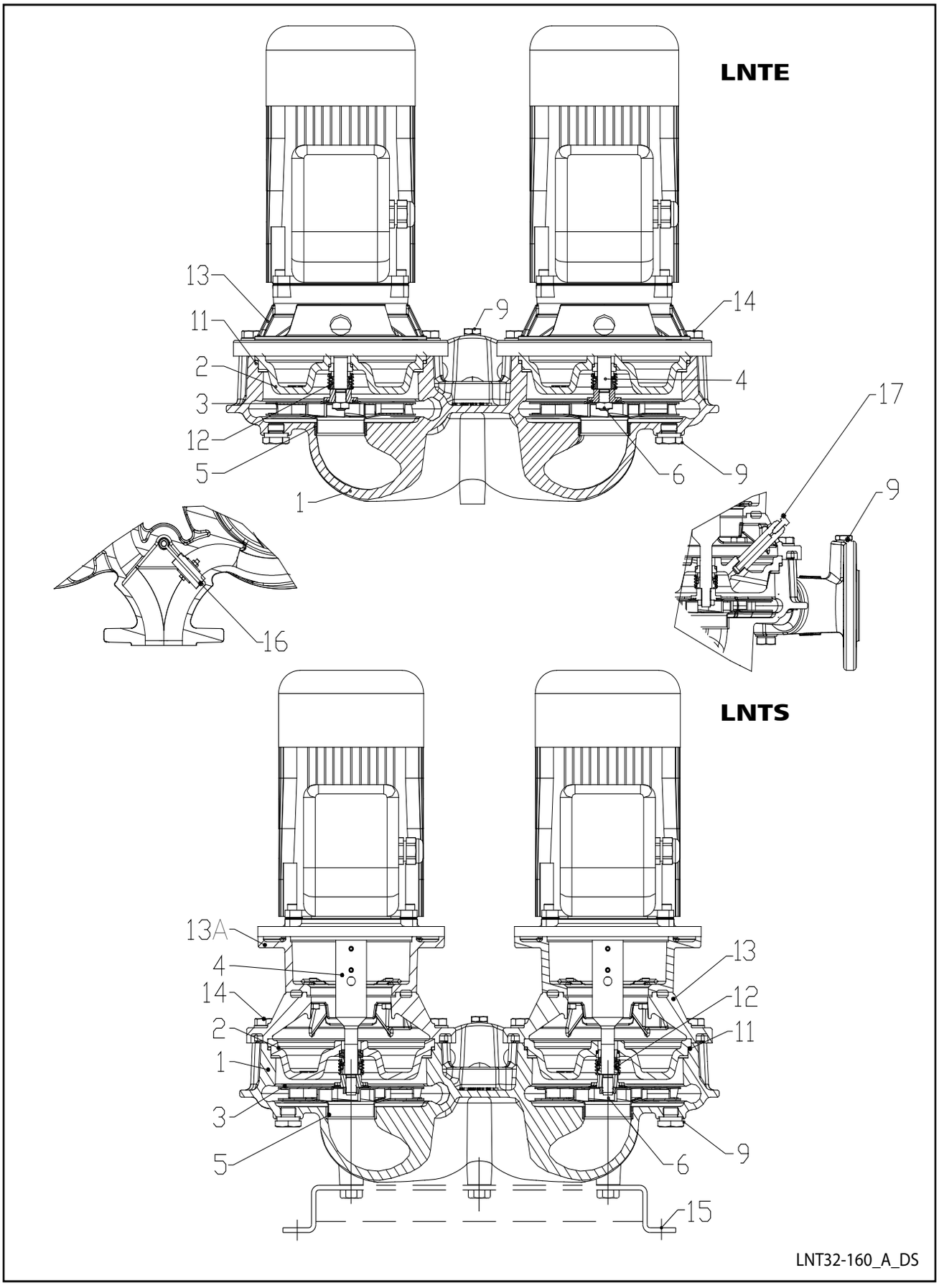
LNT 32-160
ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS



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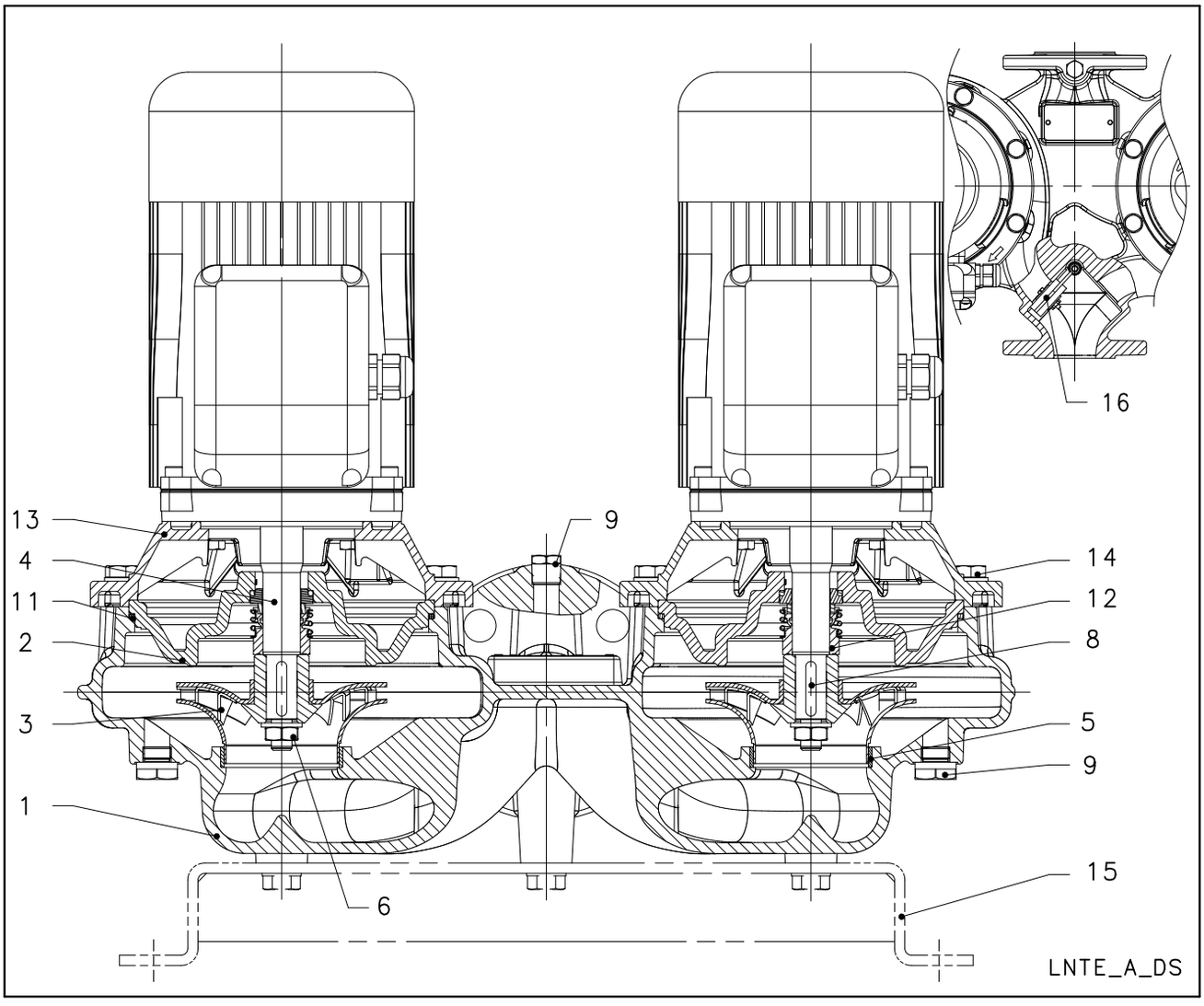
LNT 32-160
ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS

REF. N.	PART	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Volute casing	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
2	Casing cover	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
3	Impeller	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
4	Shaft extension (LNTE version)	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
4	Stub shaft (LNTS version)	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
5	Wear ring	Stainless steel	EN 10088-X5CrNi18-10 (1.4301)	AISI 304
6	Impeller lock nut and washer	Stainless steel	EN 10088-1-X5CrNiMo17-12-2 (1.4401)	AISI 316
9	Fill and drain plugs	Stainless steel	EN 10088-3-X8CrNiS18-9 (1.4305)	AISI 303
11	O-Ring	EPDM (standard version)		
12	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
13	Pump bracket	Aluminium	EN 1706-AC-AlSi11Cu2 (Fe) (AC46100)	-
13A	Motor adapter	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
14	Volute casing fastening bolts and screws	Galvanized steel		
15	Pump base (optional)	Carbon steel	EN 10025-2 - 1.0038	
16	Clapet valve	Stainless steel / EPDM	A4 (~1.4301) / EPDM 50	
17	Air valve	Stainless steel	EN 10088-3-X8CrNiS18-9 (1.4305)	AISI 303

LNT32-160-en_a_tm

LNTE SERIES
ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS



REF. N.	PART	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Volute casing	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
2	Casing cover	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
3	Impeller (40, 50, 65)	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
	Impeller (80, 100)	Cast iron	EN 1561 - GJL-200 (JL1030)	ASTM Class 30
	Impeller (80, 100)	Bronze	EN 1982 - CuSn10-C (CC480K)	UNS C90700
	Impeller (80, 100)	Stainless steel	EN 10283-1-GX5CrNiMo19-11-2 (1.4408)	ASTM A743 CF-8M
4	Shaft extension	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
5	Wear ring	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
6	Impeller lock nut and washer	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
8	Impeller key	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
9	Fill and drain plugs	Stainless steel	EN 10088-3-X8CrNiS18-9 (1.4305)	AISI 303
11	O-Ring	EPDM (standard version)		
12	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
13	Pump bracket *	Aluminium	EN 1706-AC-AlSi11Cu2 (Fe) (AC46100)	-
	Pump bracket	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
14	Volute casing fastening bolts and screws	Carbon steel		
15	Pump base (optional)	Carbon steel	EN 10025-2 - 1.0038	
16	Pump flap complete	Stainless steel/EPDM	A4 (~ 1.4301) / EPDM 50	

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

LNTE-en_c_tm

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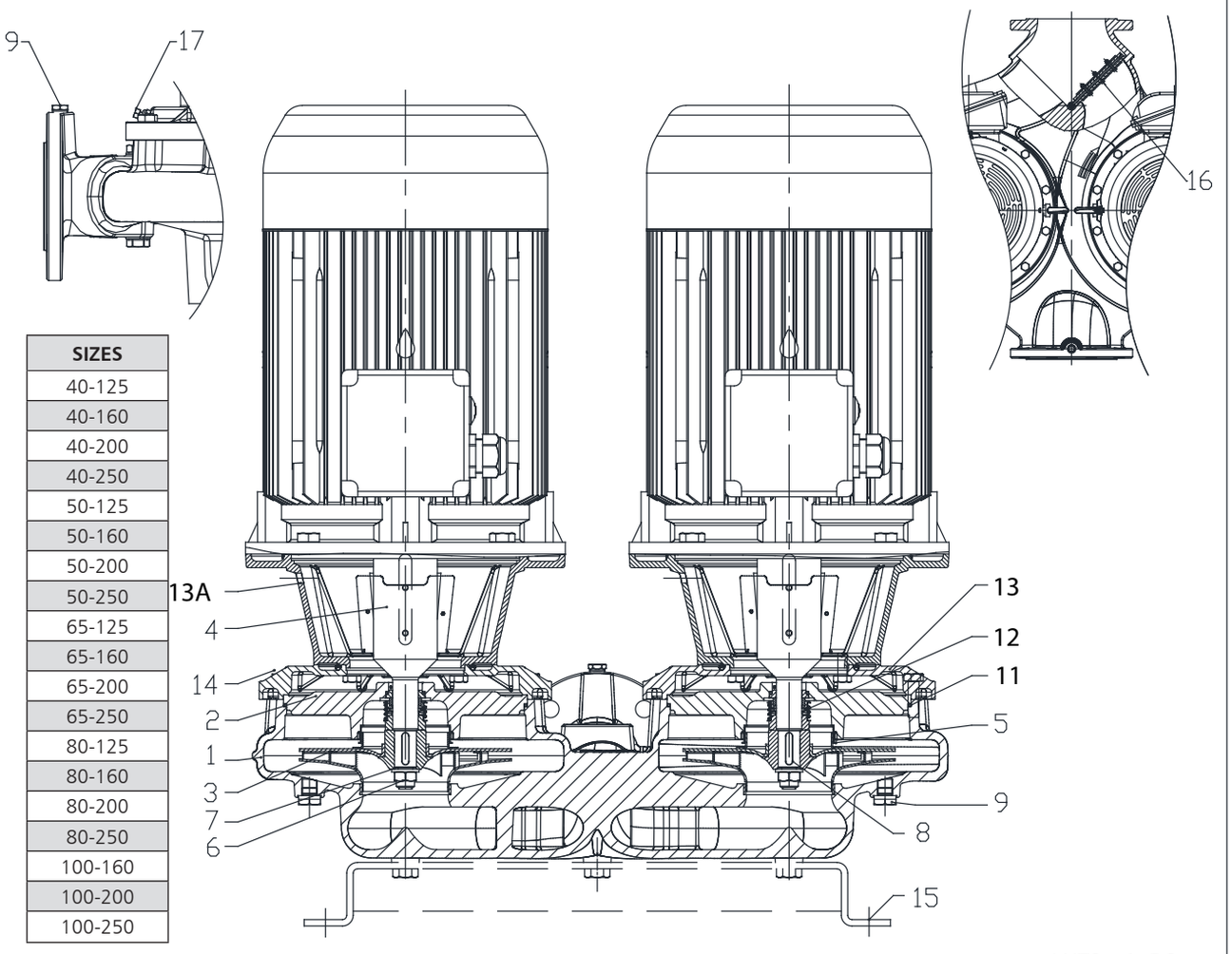
LNTS SERIES
ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS



SIZES
40-125
40-160
40-200
40-250
50-125
50-160
50-200
50-250
65-125
65-160
65-200
65-250
80-125
80-160
80-200
80-250
100-160
100-200
100-250

LNTS1_A_DS

REF. N.	PART	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Volute casing	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
2	Casing cover	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
3	Impeller (40, 50, 65)	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
	Impeller (80,100)	Cast iron	EN 1561 - GJL-200 (JL1030)	ASTM Class 30
	Impeller (80,100)	Bronze	EN 1982 - CuSn10-C (CC480K)	UNS C90700
	Impeller (80,100)	Stainless steel	EN 10283-1-GX5CrNiMo19-11-2 (1.4408)	ASTM A743 CF-8M
4	Stub shaft	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
	Stub shaft (80-250, 100-200, 100-250, 125, 150)	Stainless steel	EN 10088 - X17CrNi16-2 (1.4057)	AISI 431
5	Wear ring	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
6	Impeller nut	Stainless steel	A4 (~ 1.4401)	
7	Impeller washer	Stainless steel	A4 (~ 1.4401)	
8	Impeller key	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
9	Plug	Stainless steel	EN 10088-3-X8CrNiS18-9 (1.4305)	AISI 303
11	O-Ring	EPDM (standard version)		
12	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
13	Pump bracket *	Aluminium	EN 1706-AC-AlSi11Cu2 (Fe) (AC46100)	-
	Pump bracket	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
13A	Motor adapter	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
14	Volute - casing fastening screws	Carbon steel		
15	Pump base	Carbon steel	EN 10025-2 - 1.0038	
16	Pump flap complete	Stainless steel/EPDM	A4 (~ 1.4301) / EPDM 50	
17	Air valve	Stainless steel	EN 10088-3-X8CrNiS18-9 (1.4305)	AISI 303

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

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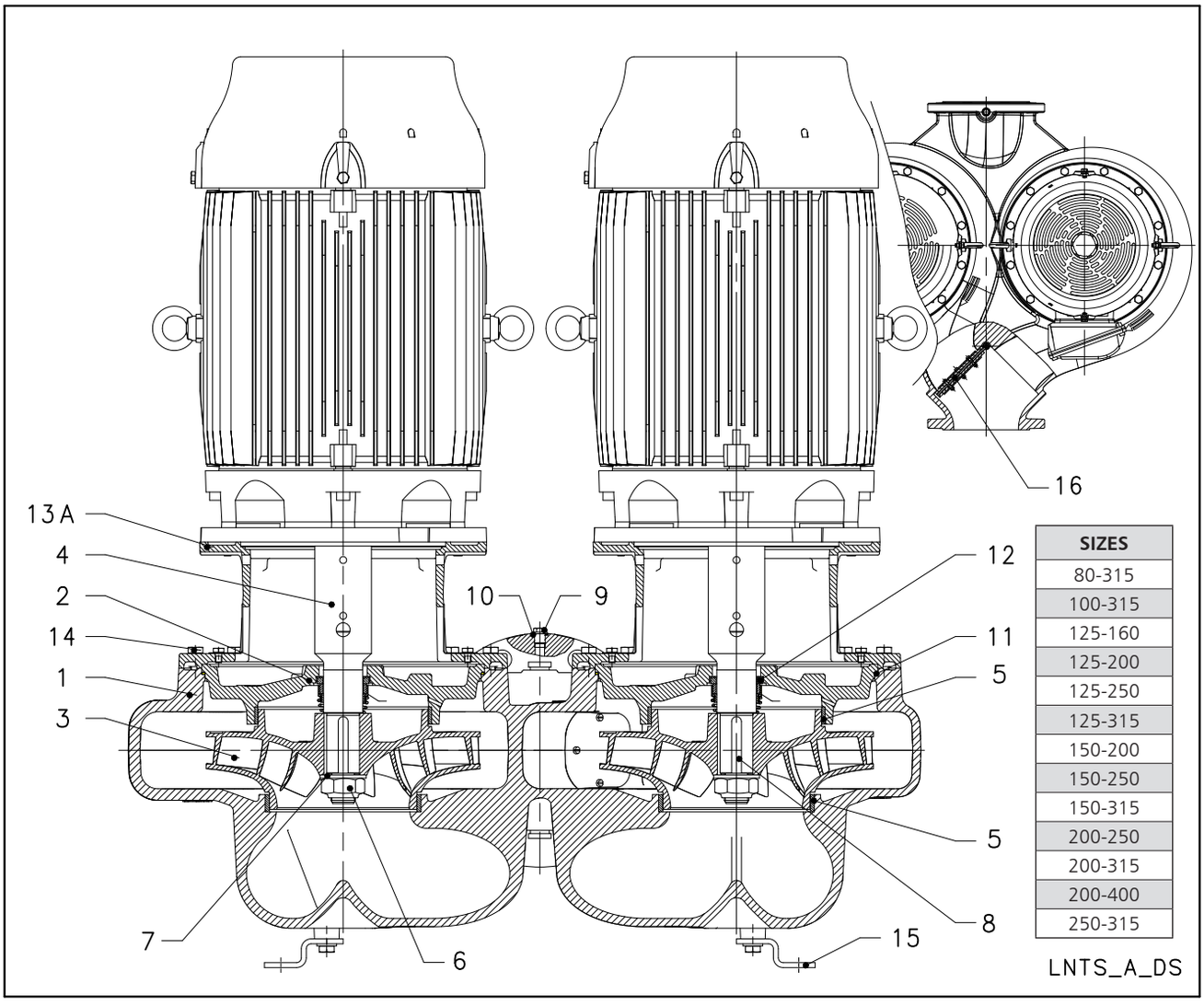
LNTS SERIES
ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS



SIZES
80-315
100-315
125-160
125-200
125-250
125-315
150-200
150-250
150-315
200-250
200-315
200-400
250-315

REF. N.	PART	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Volute casing	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
2	Casing cover	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
3	Impeller	Cast iron	EN 1561 - GJL-200 (JL1030)	ASTM Class 30
	Impeller	Bronze	EN 1982 - CuSn10-C (CC480K)	UNS C90699
	Impeller	Stainless steel	EN 10283-1-GX5CrNiMo19-11-2 (1.4408)	ASTM 316 A743 CF-8M
4	Stub shaft	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
	Stub shaft (125, 150)	Stainless steel	EN 10088 - X17CrNi16-2 (1.4057)	AISI 431
5	Wear ring	Stainless steel	EN 10088 - X5CrNi18-10 (1.4301)	AISI 304
6	Impeller nut	Stainless steel	A4 (~ 1.4401)	
7	Impeller washer	Stainless steel	A4 (~ 1.4401)	
8	Impeller key	Stainless steel	EN 10088 - X6CrNiMo17-12-2 (1.4571)	AISI 316Ti
9	Plug	Galvanized steel	EN 10277-3-11SMnPb30 (1.0718)	AISI 1213
10	Gasket	Asbestos-free synthetic fiber AFM 34		
11	O-Ring	EPDM (standard version)		
12	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
13A	Motor adapter	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
14	Volute - casing fastening screws	Carbon steel		
15	Pump base	Carbon steel	EN 10025-2 - 1.0038	
16	Pump flap complete	Stainless steel/EPDM	A4 (~ 1.4301) / EPDM 50	

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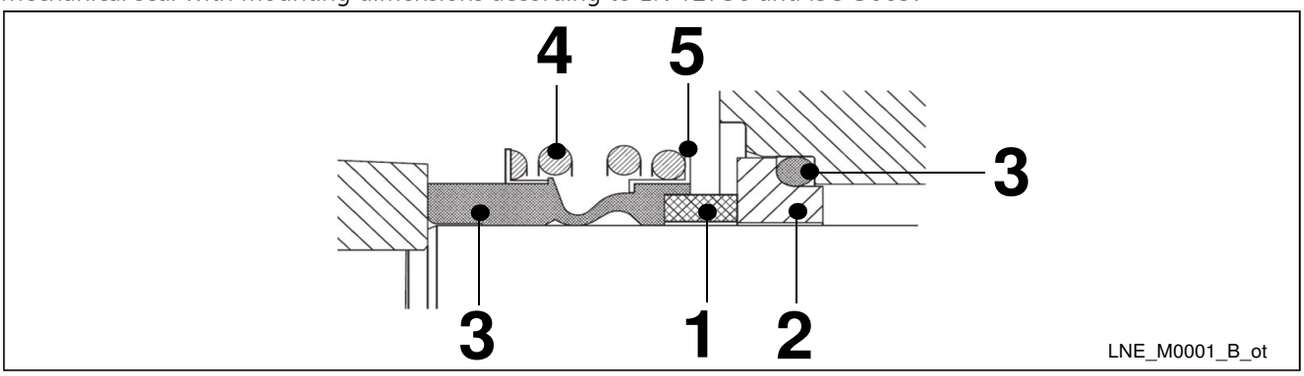
e-LNT SERIES
MECHANICAL SEALS

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)	
Q_7 : Silicon carbide		
U_3 : Tungsten carbide		

TYPE OF SEAL

lne-lnt_ten-mec-en_b_tm

TYPE	POSITION 1 ROTATING ASSEMBLY	2 FIXED ASSEMBLY	3 ELASTOMERS	4 SPRINGS	5 OTHER COMPONENTS	PRESSURE (bar)	TEMPERATURE (°C)
STANDARD MECHANICAL SEAL							
B Q_7 E G G - WA	B	Q_7	E	G	G	16/10	-25 … +90/+120
OTHER TYPES OF MECHANICAL SEAL							
B Q_7 V G G	B	Q_7	V	G	G	16	-20 … +120 *)
Q_7 Q_7 E G G - WA	Q_7	Q_7	E	G	G	16	-25 … +120
Q_7 Q_7 V G G	Q_7	Q_7	V	G	G	16	-20 … +120 *)
A Q_7 E G G	A	Q_7	E	G	G	16	-25 … +140
A Q_7 V G G	A	Q_7	V	G	G	16	-20 … +140 *)

*) for hot water: max. +80 °C

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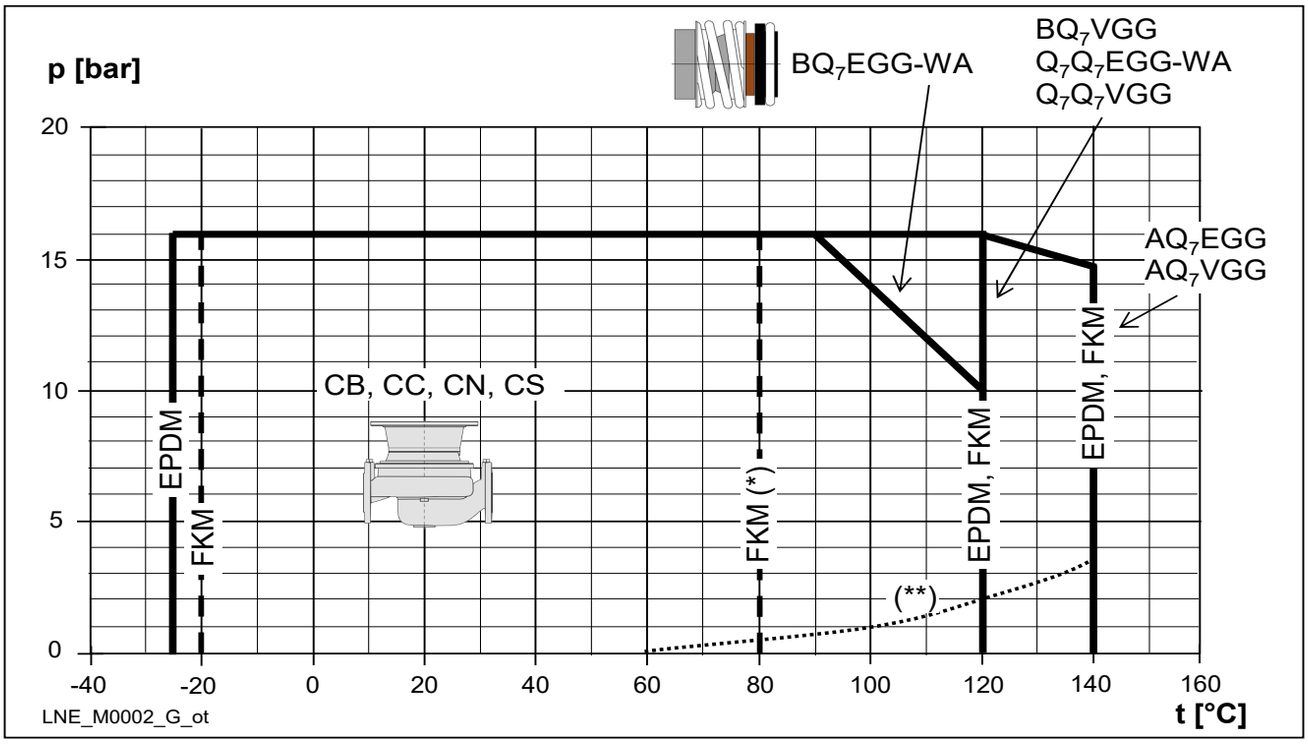
PRESSURE/TEMPERATURE APPLICATION LIMITS FOR COMPLETE PUMP



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

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

- Short-circuit squirrel-cage motor, enclosed construction with external ventilation (TEFC).
- Rated power from 0,75 to 37 kW for 2-pole range and from 0,25 to 90 kW for 4-pole range.
- **IP55** protection degree.
- Insulation class **155 (F)**.
- Electrical performances according to EN 60034-1.
- Supplied **single-phase** surface motors with **IE2** efficiency level
- Supplied **three-phase** surface motors with **IE2** efficiency level (power < 0,75 kW) and **IE3** efficiency level (power < 75 kW).
- Metric cable gland according to EN 50262.
- PTC included in motors from 30 to 55 kW (one per phase, 155°C).
- **Single-phase** version:
  220-240 V 50 Hz
  Built-in automatic reset overload protection
  Maximum ambient temperature: 45 °C.
- **Three-phase** version:
  220-240/380-415 V 50 Hz for power up to 3 kW.
  380-415/660-690 V 50 Hz for power above 3 kW.
  Overload protection to be provided by the user.
  Maximum ambient temperature: 40 o 50 °C (depending on model and power)

From 1 July 2023 in accordance with the **Regulations (EU) 2019/1781 and 2021/341**, the three-phase 50 Hz, 60 Hz or 50/60 Hz **surface motors** with **power outputs ranging from 0,12 to 0,749 kW** must have a minimum level **IE2** efficiency. The motors with power outputs ranging **from 0,75 and 74,9 kW** must have a minimum level of **IE3** efficiency; the ones with power outputs ranging **from 75 and 200 kW** must have a minimum level of **IE4** efficiency. The single-phase **surface motors** with **power outputs ranging from 0,12 kW** must have a minimum level **IE2** efficiency.

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

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

P_N kW	MOTOR TYPE	IEC SIZE*	Construction Design	INPUT CURRENT In (A) 220-240 V	CAPACITOR µF	CAPACITOR V	DATA FOR 230 V 50 Hz VOLTAGE min^{-1}	Is / In	η %	cosφ	Tn Nm	Ts/Tn	Tm/Tn	Operating conditions ** Altitude above sea level (m)	T. amb min/max (°C)	ATEX
0,75	SM90RB14S8/1075 E2	90R	B14	4,38-4,27	25	450	2865	5,11	77,4	0,97	2,50	0,40	2,26	1000 VI	-15 / 45	NO
1,1	SM90RB14S8/1115 E2	90R	B14	6,26-5,93	30	450	2860	4,78	79,6	0,98	3,67	0,50	2,14			
1,5	PLM90B14S2/1155 E2	90	B14	8,41-7,87	50	450	2890	6,71	81,3	0,97	4,95	0,59	2,78			

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

LNEE-motm-2p50-en_d_te

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

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

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

P_N kW	Voltage U_N V — Δ: 220 V	230 V	240 V	Y: 380 V	400 V	415 V	Δ: 380 V	400 V	415 V	Y: 660 V	690 V	n_N min^{-1}	Operating conditions ** — Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
	I_N (A)														
0,75	2,96	2,94	2,96	1,71	1,70	1,71	1,70	1,69	1,70	0,98	0,98	2875 ÷ 2895	≤ 1000	-15 / 50	No
1,1	4,19	4,14	4,16	2,42	2,39	2,40	2,41	2,38	2,38	1,39	1,37	2870 ÷ 2900			
1,5	5,56	5,49	5,51	3,21	3,17	3,18	3,21	3,18	3,19	1,85	1,84	2870 ÷ 2895			
2,2	7,97	7,90	7,98	4,60	4,56	4,61	4,57	4,54	4,57	2,64	2,62	2880 ÷ 2900			
3	11,0	11,0	11,2	6,35	6,33	6,44	6,29	6,27	6,34	3,63	3,62	2865 ÷ 2895			
4	13,6	13,4	13,4	7,87	7,75	7,74	7,80	7,62	7,61	4,50	4,40	2885 ÷ 2910			
5,5	18,1	17,9	18,1	10,4	10,4	10,4	10,6	10,5	10,7	6,10	6,05	2880 ÷ 2910			
7,5	24,8	24,4	24,3	14,3	14,1	14,0	14,4	14,1	14,2	8,32	8,16	2920 ÷ 2935			
9,2	30,6	30,1	30,2	17,6	17,4	17,5	17,5	17,2	17,3	10,1	9,93	2920 ÷ 2935			
11	35,7	35,0	34,9	20,6	20,2	20,2	20,6	20,2	20,2	11,9	11,7	2910 ÷ 2930			
15	47,6	46,1	45,2	27,5	26,6	26,1	27,5	26,6	26,1	15,9	15,3	2940 ÷ 2950			
18,5	58,3	56,7	55,6	33,7	32,7	32,1	34,0	33,0	32,7	19,6	19,0	2940 ÷ 2950			
22	72,9	73,1	73,7	42,1	42,2	42,6	40,9	40,4	40,6	23,6	23,3	2950 ÷ 2960			

P_N kW	Efficiency η_N % — Δ 220 V Y 380 V: 4/4	3/4	2/4	Δ 230 V Y 400 V: 4/4	3/4	2/4	Δ 240 V Y 415 V: 4/4	3/4	2/4	Δ 380 V Y 660 V: 4/4	3/4	2/4	Δ 400 V Y 690 V: 4/4	3/4	2/4	Δ 415 V: 4/4	3/4	2/4	IE
0,75	82,5	83,1	81,3	82,8	82,7	80,1	82,6	82,0	78,9	82,5	82,0	78,9	82,5	82,0	78,9	82,5	82,0	78,9	3
1,1	84,0	84,7	83,4	84,4	84,5	82,5	84,3	84,0	81,4	84,0	84,0	81,4	84,0	84,0	81,4	84,0	84,0	81,4	
1,5	85,6	86,5	85,8	85,9	86,4	84,9	86,0	86,0	84,0	85,6	86,0	84,0	85,6	86,0	84,0	85,6	86,0	84,0	
2,2	86,5	87,4	86,8	86,4	86,9	85,7	86,6	86,7	85,0	86,4	86,7	85,0	86,4	86,7	85,0	86,4	86,7	85,0	
3	87,2	88,5	88,3	87,5	88,2	87,5	87,5	87,8	86,4	87,2	87,8	86,4	87,2	87,8	86,4	87,2	87,8	86,4	
4	89,1	90,1	89,2	89,1	90,1	89,2	89,1	90,1	89,2	89,1	90,3	90,4	89,6	90,4	89,9	89,6	90,1	89,2	
5,5	89,5	89,6	88,0	89,5	89,6	88,0	89,5	89,6	88,0	89,5	90,3	89,9	89,7	90,0	89,0	89,6	89,6	88,0	
7,5	90,6	90,5	89,0	90,6	90,5	89,0	90,6	90,5	89,0	90,6	91,0	90,2	90,8	90,8	89,6	90,7	90,5	89,0	
9,2	90,8	91,0	89,7	90,8	91,0	89,7	90,8	91,0	89,7	90,8	91,4	90,8	91,1	91,3	90,3	91,1	91,0	89,7	
11	91,3	92,0	91,1	91,3	92,0	91,1	91,3	92,0	91,1	91,3	92,2	92,2	91,6	92,2	91,7	91,7	92,0	91,1	
15	92,5	92,4	91,2	92,5	92,4	91,2	92,5	92,4	91,2	92,7	93,3	92,9	93,1	93,3	92,7	92,5	92,4	91,2	
18,5	92,6	93,1	92,4	92,6	93,1	92,4	92,6	93,1	92,4	92,6	93,2	93,0	92,9	93,3	92,8	92,9	93,1	92,4	
22	93,0	92,7	91,3	93,0	92,7	91,3	93,0	92,7	91,3	93,0	93,2	92,4	93,1	93,0	91,9	93,0	92,7	91,3	

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

LNEE-IE3-mott-2p50-en_d_te

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

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

P_N kW	Voltage U_N V: Δ 220 V	Δ 230 V	Δ 240 V	Y 380 V	Y 400 V	Y 415 V	Δ 380 V	Δ 400 V	Δ 415 V	Y 660 V	Y 690 V	n_N min^{-1}	Operating conditions **: Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
	I_N (A)														
0,75	2,96	2,94	2,96	1,71	1,70	1,71	1,70	1,69	1,70	0,98	0,98	2875 ÷ 2895	≤ 1000	-15 / 50	No
1,1	4,19	4,14	4,16	2,42	2,39	2,4	2,41	2,38	2,38	1,39	1,37	2870 ÷ 2900			
1,5	5,56	5,49	5,51	3,21	3,17	3,18	3,21	3,18	3,19	1,85	1,84	2870 ÷ 2895			
2,2	8,0	7,9	8,0	4,6	4,56	4,61	4,57	4,54	4,57	2,64	2,62	2880 ÷ 2900			
3	11,0	11	11,2	6,35	6,33	6,44	6,29	6,27	6,34	3,63	3,62	2865 ÷ 2895			
4	13,6	13,4	13,4	7,9	7,8	7,7	7,8	7,6	7,6	4,50	4,40	2885 ÷ 2910			
5,5	18,1	17,9	18,1	10,4	10,4	10,4	10,6	10,5	10,7	6,10	6,05	2880 ÷ 2910			
7,5	24,8	24,4	24,3	14,3	14,1	14,0	14,4	14,1	14,2	8,3	8,2	2920 ÷ 2935			
11	35,7	35	34,9	20,6	20,2	20,2	20,6	20,2	20,2	11,9	11,7	2910 ÷ 2930			
15	47,6	46,1	45,2	27,5	26,6	26,1	27,5	26,6	26,1	15,9	15,3	2940 ÷ 2950			
18,5	58,3	56,7	55,6	33,7	32,7	32,1	34,0	33,0	32,7	19,6	19,0	2940 ÷ 2950			
22	72,9	73,1	73,7	42,1	42,2	42,6	40,9	40,4	40,6	23,6	23,3	2950 ÷ 2960			

P_N kW	Efficiency η_N % — Δ 220 V Y 380 V: 4/4	3/4	2/4	Δ 230 V Y 400 V: 4/4	3/4	2/4	Δ 240 V Y 415 V: 4/4	3/4	2/4	Δ 380 V Y 660 V: 4/4	3/4	2/4	Δ 400 V Y 690 V: 4/4	3/4	2/4	Δ 415 V: 4/4	3/4	2/4	IE
0,75	82,5	83,1	81,3	82,8	82,7	80,1	82,6	82,0	78,9	82,5	82,0	78,9	82,5	82,0	78,9	82,5	82,0	78,9	3
1,1	84,0	84,7	83,4	84,4	84,5	82,5	84,3	84,0	81,4	84,0	84,0	81,4	84,0	84,0	81,4	84,0	84,0	81,4	
1,5	85,6	86,5	85,8	85,9	86,4	84,9	86,0	86,0	84,0	85,6	86,0	84,0	85,6	86,0	84,0	85,6	86,0	84,0	
2,2	86,5	87,4	86,8	86,4	86,9	85,7	86,6	86,7	85,0	86,4	86,7	85,0	86,4	86,7	85,0	86,4	86,7	85,0	
3	87,2	88,5	88,3	87,5	88,2	87,5	87,5	87,8	86,4	87,2	87,8	86,4	87,2	87,8	86,4	87,2	87,8	86,4	
4	89,1	90,1	89,2	89,1	90,1	89,2	89,1	90,1	89,2	89,1	90,3	90,4	89,6	90,4	89,9	89,6	90,1	89,2	
5,5	89,5	89,6	88,0	89,5	89,6	88,0	89,5	89,6	88,0	89,5	90,3	89,9	89,7	90,0	89,0	89,6	89,6	88,0	
7,5	90,6	90,5	89,0	90,6	90,5	89,0	90,6	90,5	89,0	90,6	91,0	90,2	90,8	90,8	89,6	90,7	90,5	89,0	
11	91,3	92,0	91,1	91,3	92,0	91,1	91,3	92,0	91,1	91,3	92,2	92,2	91,6	92,2	91,7	91,7	92,0	91,1	
15	92,5	92,4	91,2	92,5	92,4	91,2	92,5	92,4	91,2	92,7	93,3	92,9	93,1	93,3	92,7	92,5	92,4	91,2	
18,5	92,6	93,1	92,4	92,6	93,1	92,4	92,6	93,1	92,4	92,6	93,2	93,0	92,9	93,3	92,8	92,9	93,1	92,4	
22	93,0	92,7	91,3	93,0	92,7	91,3	93,0	92,7	91,3	93,0	93,2	92,4	93,1	93,0	91,9	93,0	92,7	91,3	

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

LNES-IE3-mott-2p50-en_d_te

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

LOWARA
a xylem brand

LNTS SERIES
THREE-PHASE MOTORS AT 50 Hz, 2 POLES (from 30 to 37 kW)

P_N kW	Manufacturer: OMEGA MOTOR SANAYI A.S. Dudullu Organize Sanayi Bölgesi 2. Cadde No: 10 34775 Ümraniye ISTANBUL/TURKEY Reg. No. 913733 — Model	IEC SIZE	Construction Design	N. of Poles	f_N Hz	Data for 400 V / 50 Hz Voltage: cosφ	Is / I_N	T_N Nm	Ts/T_N	Tm/Tn
30	3MAS 200LA2 V1 30KW E3	200	B5	2	50	0,89	7,80	96,90	2,60	3,10
37	3MAS 200LB2 V1 37KW E3	200				0,90	8,00	119,4	2,90	3,20

P_N kW	Voltage U_N V: Δ 380 V	Δ 400 V	Δ 415 V	Y 660 V	Y 690 V — I_N (A)	n_N min^{-1}	Operating conditions **: Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
30	55,3	52,2	50,8	31,8	30,3	2965	≤ 1000	-20 / 50	No
37	66,6	63,9	61,5	38,4	37,0	2965			

P_N kW	Efficiency η_N % — Δ 380 V Y 660 V 4/4	3/4	2/4	Δ 400 V Y 690 V 4/4	3/4	2/4	Δ 415 V 4/4	3/4	2/4	IE
30	93,0	93,1	93,0	93,3	93,5	93,4	93,4	93,6	93,4	3
37	93,5	94,0	93,7	93,7	94,1	93,8	93,8	94,2	93,9	

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

LNES-IE3-mott37-2p50-en_c_te

LOWARA
a xylem brand

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

P_N kW	Manufacturer: Xylem Service Italia Srl, Reg. No. 07520560967, Montecchio Maggiore Vicenza - Italia — Model	IEC SIZE*	Construction Design	N. of Poles	f_N Hz	Data for 400 V / 50 Hz Voltage: cosφ	Is / I_N	T_N Nm	Ts/T_N	Tm/Tn
0,25	LLM471B5/302	71	B5	4	50	0,77	3,90	1,80	1,80	2,00
0,37	LLM471B5/304	71				0,70	4,60	2,60	2,70	2,20
0,55	LLM490RB14S2/305	90R	SPECIAL			0,76	4,40	3,80	2,30	2,40
	LLM490RB5S2/305	90R								
0,75	LLM490RB14S2/307	90R				0,80	6,38	5,00	2,73	3,13
	LLM490RB5S2/307	90R								
1,1	PLM490B5S2/311 E3	90				0,71	6,22	7,28	2,75	3,44
1,5	PLM490B5S2/315 E3	90				0,68	6,92	9,89	3,29	4,01
	PLM490B5S3/315 E3	90								
2,2	PLM4100B5S3/322 E3	100				0,78	7,47	14,50	2,38	3,69
3	PLM4100B5S3/330 E3	100				0,74	7,75	19,70	2,48	4,21
4	PLM4112B5S3/340 E3	112				0,79	8,32	26,30	3,19	4,02

P_N kW	Voltage U_N V — Δ 220 V	Δ 230 V	Δ 240 V	Y 380 V	Y 400 V	Y 415 V	Δ 380 V	Δ 400 V	Δ 415 V	Y 660 V	Y 690 V	n_N min^{-1}	Operating conditions ** — Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
	I_N (A)														
0,25	1,28	1,20	1,16	0,74	0,70	0,67	-	-	-	-	-	1390	≤ 1000	-15 / 40	No
0,37	1,82	1,80	1,66	1,05	1,00	0,96	-	-	-	-	-	1410			
0,55	2,42	2,60	2,25	1,40	1,35	1,30	-	-	-	-	-	1420			
0,75	2,90	2,85	2,85	1,70	1,65	1,65	1,70	1,65	1,65	0,98	0,95	1420 ÷ 1435			
1,1	4,61	4,59	4,62	2,66	2,65	2,67	2,64	2,63	2,65	1,53	1,52	1435 ÷ 1445		-15 / 50	
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			

P_N kW	Efficiency η_N % — Δ 220 V Y 380 V 4/4	3/4	2/4	Δ 230 V Y 400 V 4/4	3/4	2/4	Δ 240 V Y 415 V 4/4	3/4	2/4	Δ 380 V Y 660 V 4/4	3/4	2/4	Δ 400 V Y 690 V 4/4	3/4	2/4	Δ 415 V 4/4	3/4	2/4	IE
0,25	70,6	72,5	70,8	70,9	71,5	69,0	71,8	71,5	67,1	-	-	-	-	-	-	-	-	-	2
0,37	75,9	76	72	75,8	74,6	70,1	75,2	73,4	68,1	-	-	-	-	-	-	-	-	-	
0,55	78,8	80,3	78,9	79,0	79,7	77,6	79,6	79,6	76,7	-	-	-	-	-	-	-	-	-	
0,75	83,0	84,3	83,5	83,4	84,1	82,6	83,8	84,0	81,9	83,0	84,3	83,5	83,4	84,1	82,6	83,8	84,0	81,9	3
1,1	84,9	85,7	84,7	85,3	85,5	83,8	85,3	85,0	82,7	84,9	85,0	82,7	84,9	85,0	82,7	84,9	85,0	82,7	
1,5	86,6	87,0	85,7	86,7	86,9	84,5	86,4	85,9	83,3	86,4	85,9	83,3	86,4	85,9	83,3	86,4	85,9	83,3	
2,2	87,6	88,6	88,3	88,2	88,8	87,9	88,5	88,7	87,4	87,6	88,6	87,4	87,6	88,6	87,4	87,6	88,6	87,4	
3	88,5	89,2	88,5	88,6	88,9	87,6	88,6	88,6	86,8	88,5	88,6	86,8	88,5	88,6	86,8	88,5	88,6	86,8	
4	88,6	89,1	87,9	88,6	89,1	87,9	88,6	89,1	87,9	88,6	89,2	88,9	88,6	89,2	88,4	88,8	89,1	87,9	

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

LNEE-IE3-mott-4p50-en_f_te

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

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

P_N kW	Manufacturer: Xylem Service Italia Srl, Reg. No. 07520560967, Montecchio Maggiore Vicenza - Italia. Model	IEC SIZE	Construction Design	N. of Poles	f_N Hz	Data for 400 V / 50 Hz Voltage: cosφ	Is / I_N	T_N Nm	Ts/T_N	Tm/Tn
0,55	LLM480B5/305	80	B5	4	50	0,76	4,40	3,80	2,30	2,40
0,75	LLM480B5/307	80				0,80	6,38	5,00	2,73	3,31
1,1	PLM490B5/311 E3	90				0,71	6,22	7,28	2,75	3,44
1,5	PLM490B5/315 E3	90				0,68	6,92	9,89	3,29	4,01
2,2	PLM4100B5/322 E3	100				0,78	7,47	14,5	2,38	3,69
3	PLM4100B5/330 E3	100				0,74	7,75	19,7	2,48	4,21
4	PLM4112B5/340 E3	112				0,79	8,32	26,3	3,19	4,02
5,5	PLM4132B5/355 E3	132				0,76	7,64	35,9	2,85	3,65
7,5	PLM4132B5/375 E3	132				0,79	7,70	49,1	2,69	3,57
11	PLM4160B5/3110 E3	160				0,81	7,19	71,5	2,45	3,26
15	PLM4160B5/3150 E3	160				0,77	8,23	97,2	2,97	3,99

P_N kW	Voltage U_N V: Δ 220 V	Δ 230 V	Δ 240 V	Y 380 V	Y 400 V	Y 415 V	Δ 380 V	Δ 400 V	Δ 415 V	Y 660 V	Y 690 V	n_N min^{-1}	Operating conditions **: Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
	I_N (A)														
0,55	2,42	2,34	2,25	1,40	1,35	1,30	-	-	-	-	-	1420	≤ 1000	-15 / +40	No
0,75	2,90	2,85	2,85	1,70	1,65	1,65	1,70	1,65	1,65	0,98	0,95	1420 ÷ 1435			
1,1	4,61	4,59	4,62	2,66	2,65	2,67	2,64	2,63	2,65	1,53	1,52	1435 ÷ 1445		-15 / +50	
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			
5,5	20,0	19,7	19,4	11,6	11,4	11,2	11,7	11,5	11,4	6,75	6,62	1455 ÷ 1465			
7,5	26,6	26,1	25,8	15,4	15,1	14,9	15,5	15,2	15,1	8,95	8,75	1450 ÷ 1460			
11	38,3	37,3	37,5	22,1	21,8	21,7	21,9	21,4	21,3	12,6	12,3	1465 ÷ 1470			
15	51,8	52,0	52,7	29,9	30,0	30,4	30,5	30,7	31,4	17,6	17,7	1465 ÷ 1475			

P_N kW	Efficiency η_N %: Δ 220 V Y 380 V 4/4	3/4	2/4	Δ 230 V Y 400 V 4/4	3/4	2/4	Δ 240 V Y 415 V 4/4	3/4	2/4	Δ 380 V Y 660 V 4/4	3/4	2/4	Δ 400 V Y 690 V 4/4	3/4	2/4	Δ 415 V 4/4	3/4	2/4	IE
0,55	78,8	80,3	78,9	79,0	79,7	77,6	79,6	79,6	76,7	-	-	-	-	-	-	-	-	-	2
0,75	83,0	84,3	83,5	83,4	84,1	82,6	83,8	84,0	81,9	83,0	84,3	83,5	83,4	84,1	82,6	83,8	84,0	81,9	3
1,1	84,9	85,7	84,7	85,3	85,5	83,8	85,3	85,0	82,7	84,9	85,0	82,7	84,9	85,0	82,7	84,9	85,0	82,7	
1,5	86,6	87,0	85,7	86,7	86,9	84,5	86,4	85,9	83,3	86,4	85,9	83,3	86,4	85,9	83,3	86,4	85,9	83,3	
2,2	87,6	88,6	88,3	88,2	88,8	87,9	88,5	88,7	87,4	87,6	88,6	87,4	87,6	88,6	87,4	87,6	88,6	87,4	
3	88,5	89,2	88,5	88,6	88,9	87,6	88,6	88,6	86,8	88,5	88,6	86,8	88,5	88,6	86,8	88,5	88,6	86,8	
4	88,6	89,1	87,9	88,6	89,1	87,9	88,6	89,1	87,9	88,6	89,2	88,9	88,6	89,2	88,4	88,8	89,1	87,9	
5,5	90,4	90,9	89,7	90,4	90,9	89,7	90,4	90,9	89,7	90,4	91,0	90,5	90,9	91,1	90,2	90,9	90,9	89,7	
7,5	90,4	91,2	90,4	90,4	91,2	90,4	90,4	91,2	90,4	90,4	91,2	91,1	90,7	91,3	90,8	90,9	91,2	90,4	
11	91,5	92,2	91,4	91,5	92,2	91,4	91,5	92,2	91,4	91,5	92,4	92,4	91,9	92,5	92,0	91,9	92,2	91,4	
15	92,2	92,2	90,8	92,2	92,2	90,8	92,2	92,2	90,8	92,5	93,0	92,7	92,5	92,7	91,8	92,2	92,2	90,8	

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

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

P_N kW	Manufacturer / Model	IEC SIZE	Construction Design	N. of Poles	f_N Hz	Data for 400 V / 50 Hz Voltage: cosφ	Is / I_N	T_N Nm	Ts/T_N	Tm/Tn
18,5	3MAS 180M4 B5 18.5kW E3	180	B5	4	50	0,81	7,10	119,6	2,80	3,10
22	3MAS 180L4 B5 22kW E3	180				0,81	7,20	142,8	2,60	3,20
30	3MAS 200L4 B5 30kW E3	200				0,87	7,50	194,3	2,60	3,10
37	3MAS 225S4 B5 37kW E3	225				0,86	7,50	238,2	2,60	3,10

P_N kW	Voltage U_N V: Δ 380 V	Δ 400 V	Δ 415 V	Y 660 V	Y 690 V	n_N min^{-1}	Operating conditions **: Altitude Above sea Level (m)	T. amb min/max °C	ATEX
	I_N (A)								
18,5	37,20	35,60	35,00	21,50	20,90	1475	≤ 1000	-20 / +50	No
22	44,00	42,20	41,00	25,40	24,10	1478			
30	55,80	53,20	51,00	32,20	30,80	1482			
37	68,90	66,10	63,80	39,80	38,30	1480			

P_N kW	Efficiency η_N % — Δ 380 V Y 660 V: 4/4	3/4	2/4	Δ 400 V Y 690 V: 4/4	3/4	2/4	Δ 415 V: 4/4	3/4	2/4	IE
18,5	92,4	92,8	92,5	92,6	93,0	92,7	92,9	93,3	93,0	3
22	92,8	93,3	93,1	93,0	93,5	93,3	93,3	93,8	93,6	
30	93,4	94,0	94,1	93,6	94,2	94,3	94,0	94,6	94,7	
37	93,7	94,2	94,0	93,9	94,4	94,2	94,1	94,6	94,4	

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

LNTS-IE3-mott37-4p50-en_c_te

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e-LNT SERIES
AVAILABLE VOLTAGES FOR SM AND PLM MOTORS

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

s = Standard voltage o = Voltage upon request

lne-volt-lowa-en_b_te

For higher power motors special voltages available on request.

Tolerances on nominal voltages

50Hz:

± 10% on the single voltage value shown on the rating plate.
± 5% on voltage range shown on the rating plate.

60Hz:

± 10% on the voltage values shown on the rating plate.

e-LNT SERIES
MOTOR NOISE

The tables below show the mean sound pressure levels (Lp) measured at 1 meter distance in a free field according to EN ISO 11203.
The noise values are measured on 50 Hz motors and have a tolerance of 3 dB (A) according to EN ISO 4871.

LNTE, LNTS MOTORS 2 POLES 50 Hz

POWER kW	MOTOR TYPE IEC SIZE *	NOISE LpA dB
0,75	80 - 90R	<70
1,1	80 - 90R	<70
1,5	90R	<70
2,2	90	<70
3	90 100R	<70
4	112R	<70
5,5	112 - 132R	<70
7,5	132	71
9,2	132	73
11	132 - 160R	73
15	160	71
18,5	160	73
22	160 - 180R	70
30	200	71
37	200	71

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

LNTE, LNTS MOTORS 4 POLES 50 Hz

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

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LOWARA
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e-LNT SERIES
PUMPS (ErP 2009/125/EC)

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
- one impeller;
- a nominal pressure PN not higher than 16 bar (1600 kPa);
- a minimum nominal flow not less than 6 m^3/h;
- a maximum nominal power at the shaft not higher than 150 kW;
- a head not greater than 140 meters, with a speed of 2900 min^{-1}
a head not greater than 90 meters, with a speed of 1450 min^{-1}
- 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).

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 deadline:

from	minimum efficiency index (MEI)
1st January 2015	MEI ≥ 0,4

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

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: see date on rating plate (≥ 2014).
4) Manufacturer: Xylem Service Italia Srl - Via dott. Vittorio Lombardi 14, 36075 Montecchio Maggiore (VI), Italia - Reg. No 07520560967.
5) Product type: see the PUMP TYPE column in the tables in the *Hydraulic performance* section.
6) Hydraulic pump efficiency with trimmed impeller: see ηp and Ø 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, (Ecodesign, Efficiency charts). Refer to "ESCCi 1450 rpm", "ESCCi 2900 rpm".

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e-LNT SERIES
MINIMUM EFFICIENCY INDEX (MEI)

2-POLE		
PUMP SIZE	LNTE	LNTS
32-160/156	≥0,40	≥0,40
40-125/145	≥0,40	≥0,40
40-160/171	≥0,40	≥0,40
40-200/205	≥0,40	≥0,40
40-250/259	≥0,40	≥0,40
50-125/135	≥0,40	≥0,40
50-160/165	≥0,40	≥0,40
50-200/199	≥0,40	≥0,40
50-250/257,5	≥0,40	≥0,40
65-125/148	≥0,40	≥0,40
65-160/176	≥0,40	≥0,40
65-200/209	≥0,40	≥0,40
65-250/256	≥0,40	≥0,40
80-125/148	≥0,40	≥0,40
80-160/180	≥0,40	≥0,40
80-200/220	≥0,40	≥0,40
80-250/229	≥0,40	≥0,40
100-160/177	≥0,40	≥0,40
100-200/208	≥0,40	≥0,40
100-250/214	≥0,40	≥0,40

4-POLE		
PUMP SIZE	LNTE	LNTS
32-160/156	≥0,40	---
40-125/145	≥0,40	≥0,40
40-160/171	≥0,40	≥0,40
40-200/205	≥0,40	≥0,40
40-250/259	≥0,40	≥0,40
50-125/135	≥0,40	≥0,40
50-160/165	≥0,40	≥0,40
50-200/199	≥0,40	≥0,40
50-250/257,5	≥0,40	≥0,40
65-125/148	≥0,40	≥0,40
65-160/176	≥0,40	≥0,40
65-200/209	≥0,40	≥0,40
65-250/256	≥0,40	≥0,40
80-125/148	≥0,40	≥0,40
80-160/180	≥0,40	≥0,40
80-200/220	≥0,40	≥0,40
80-250/258	≥0,40	≥0,40
80-315/334	---	≥0,40
100-160/177	≥0,40	≥0,40
100-200/219	≥0,40	≥0,40
100-250/259	≥0,40	≥0,40
100-315/334	---	≥0,40
125-160/184	---	≥0,40
125-200/227	---	≥0,40
125-250/259	---	≥0,40
125-315/334	---	≥0,40
150-200/220	---	≥0,40
150-250/249	---	≥0,40
150-315/322	---	≥0,40

LNT-MEI-en_c_sc

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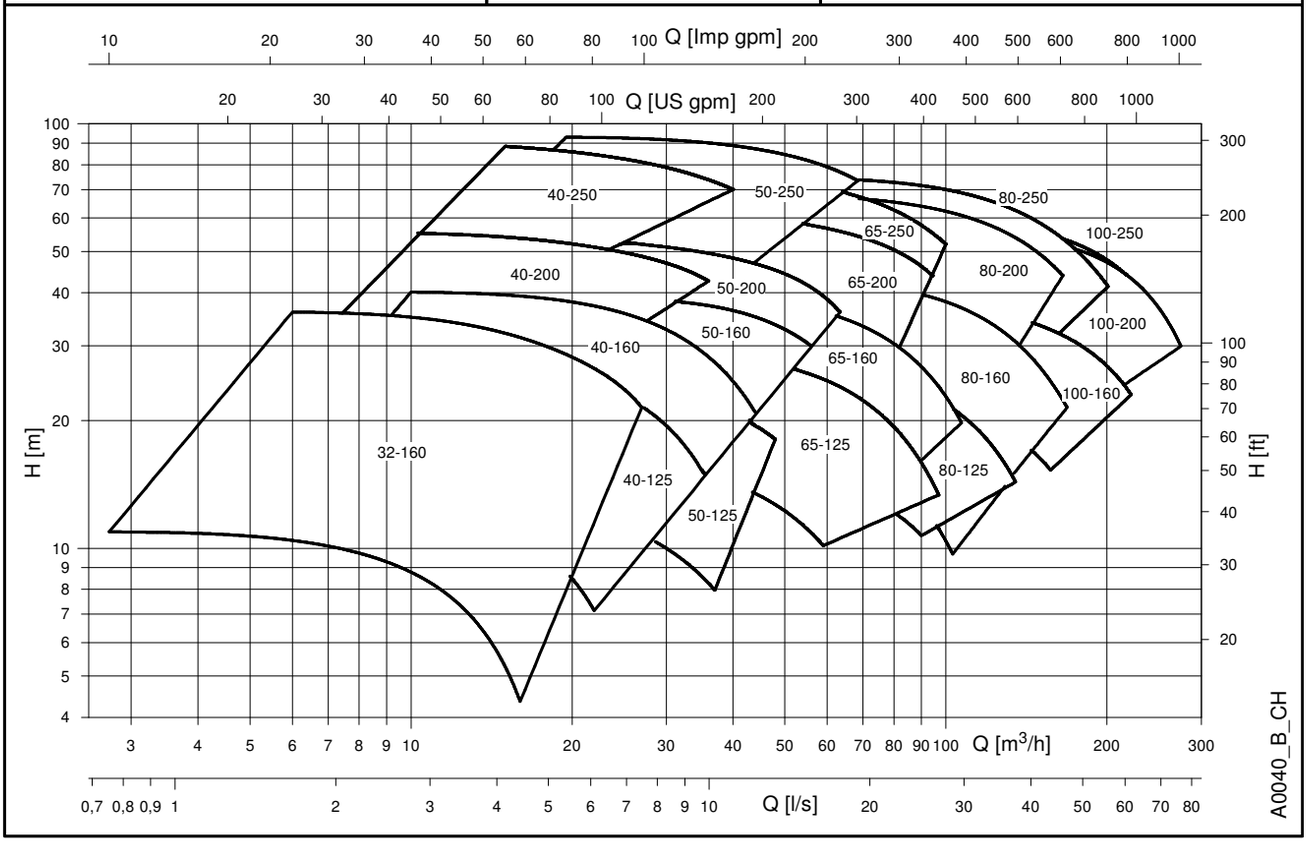
e-LNT SERIES (SINGLE OPERATION)
HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 2 POLES

LNT (S)	~ 2950 [rpm]	ISO 9906:2012 - Grade 3B



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

PUMP TYPE	P_N kW	Ø Impeller (mm) STD (1)	B (1)	○ ● (2)	ηp % (3)	Q = DELIVERY l/s 0	0,8	1,4	1,9	2,5	3,1	3,6	4,2	4,7	5,3	5,8	6,4	7,5
						m3/h 0	3	5	7	9	11	13	15	17	19	21	23	27
						H = TOTAL HEAD METRES COLUMN OF WATER												
32-160/07A*	0,75	92	-	○	51,9	10,6	10,9	10,7	10,1	9,3	8,2	6,9	5,3					
32-160/07*	0,75	104	-	○	52,4	12,9		13,0	12,5	11,6	10,5	9,1	7,3	5,3				
32-160/11*	1,1	115	-	○	54,1	16,4		17,0	16,7	16,1	15,1	13,9	12,4	10,6	8,6			
32-160/15*	2	126	-	○	55,4	20,9		21,4	21,1	20,4	19,4	18,2	16,7	15,2	13,4	11,4		
32-160/22*	2,2	138	-	○	57,5	26,4		27,2	27,1	26,7	25,8	24,6	23,3	21,8	20,3	18,7	16,9	
32-160/30	3	156	-	●	60,6	35,5			35,9	35,4	34,6	33,5	32,1	30,6	29,0	27,4	25,6	21,5

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

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

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

LNT-32-40-50_2p50S-en_a_th

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

*Available also in single-phase version.

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

PUMP TYPE	PN	Ø Impeller (mm) STD	B	○ ●	ηπ %	Q = DELIVERY l/s 0	5,0	7,2	9,4	11,7	13,9	16,1	18,3	20,6	22,8	25,0	27,2	30,3
						m3/h 0	18	26	34	42	50	58	66	74	82	90	98	109
	kW	(1)		(2)	(3)	H = TOTAL HEAD METRES COLUMN OF WATER												
65-125/30	3	118	-	○	62,8	17,5		16,1	15,1	13,8	12,2	10,4						
65-125/40	4	130	-	○	65,6	22,1		20,5	19,7	18,4	16,8	14,8	12,5					
65-125/55	5,5	144	-	○	68,0	27,3		26,0	25,3	24,3	22,8	20,9	18,7	16,1	13,3			
65-125/75	7,5	148	-	●	70,1	31,1			28,9	28,0	26,8	25,3	23,4	21,2	18,7	15,9		
65-160/55	5,5	144	-	○	64,4	27,0		25,9	25,4	24,5	23,3	21,7	19,7	17,5	15,0			
65-160/75	7,5	159	-	○	66,0	33,3		31,9	31,3	30,4	29,2	27,6	25,7	23,3	20,7	17,8		
65-160/92	9,2	170	-	○	66,9	37,1		35,7	35,1	34,2	33,0	31,4	29,5	27,3	24,7	21,7	18,6	
65-160/110A	11	170	-	○	66,9	37,1		35,7	35,1	34,2	33,0	31,4	29,5	27,3	24,7	21,7	18,6	
65-160/110	11	176	-	●	68,0	42,0		40,4	39,8	38,9	37,7	36,2	34,4	32,2	29,7	26,8	23,6	
65-200/92	9,2	168	-	○	64,1	36,6		37,3	36,7	35,9	34,7	33,2	30,9					
65-200/110A	11	168	-	○	64,1	36,6		37,3	36,7	35,9	34,7	33,2	30,9					
65-200/110	11	179	-	○	65,3	42,5		43,3	42,6	41,6	40,4	38,8	36,8	34,1				
65-200/150	15	197	-	○	67,4	54,2		55,2	54,4	53,4	52,0	50,4	48,5	46,2	43,3	39,7		
65-200/185	18,5	209	-	●	68,6	61,6			61,8	60,5	59,0	57,2	55,1	52,6	49,7	46,1		
65-250/150	15	208	-	○	64,3	58,8		59,9	58,8	57,0	54,6	51,4	47,6	43,1	38,1	32,5		
65-250/185	18,5	220	-	○	65,1	65,0		66,9	66,4	65,2	63,6	61,3	58,5	55,3	51,5	47,3		
65-250/220	22	232	-	○	66,2	73,9		76,0	75,6	74,5	73,0	70,9	68,3	65,3	61,7	57,7	53,2	
65-250/300	30	256	-	●	68,1	90,9			92,6	91,4	89,7	87,5	84,7	81,4	77,5	73,1	68,3	60,8

PUMP TYPE	P_N	Ø Impeller (mm) STD	B	○ ●	ηp %	Q = DELIVERY l/s 0	5,6	10,0	14,4	18,9	23,3	27,8	32,2	36,7	41,1	45,6	50,0	55,8
						m^3/h 0	20	36	52	68	84	100	116	132	148	164	180	201
	kW	(1)		(2)	(3)	H = TOTAL HEAD METRES COLUMN OF WATER												
80-125/40	4	117,8	-	○	60,7	17,5		16,6	15,2	13,5	11,6							
80-125/110	11	148	144	●	69,4	29,2		28,8	27,9	26,4	24,4	21,9	18,8	15,1				
80-160/55	5,5	130,7	-	○	69,4	21,5		20,7	19,5	17,2	14,1	10,4						
80-160/75	7,5	145	144	○	70,8	26,7		26,0	25,0	23,2	20,5	17,1	13,1					
80-160/92	9,2	151	152	○	71,9	30,8		30,1	29,3	27,7	25,3	22,2	18,4					
80-160/110A	11	151	152	○	71,9	30,8		30,1	29,3	27,7	25,3	22,2	18,4					
80-160/110	11	162	160	○	72,7	34,2		33,6	32,9	31,5	29,3	26,4	22,8	18,7				
80-160/150	15	176	176	○	74,4	41,8		41,2	40,6	39,5	37,7	35,2	32,1	28,3	24,0			
80-160/185	18,5	180	180	●	74,9	44,4		43,7	43,1	42,1	40,4	38,1	35,1	31,4	27,2	22,8		
80-200/110	11	165	162	○	67,6	35,7		35,6	34,3	32,1	28,7	24,4						
80-200/150	15	177	177	○	68,9	43,1		43,3	42,3	40,4	37,5	33,7	29,1					
80-200/185	18,5	189	189	○	70,0	49,5		49,7	48,9	47,2	44,7	41,3	37,0	32,0				
80-200/220	22	199	199	○	70,8	55,1		55,4	54,7	53,2	50,9	47,8	43,8	39,1	33,6			
80-200/300	30	220	218	●	72,6	68,0			67,9	66,7	64,8	62,2	58,8	54,7	49,9	44,4		
80-250/220	22	195	192	○	70,5	51,8		53,5	53,0	51,6	49,4	46,2	42,4	37,9	32,9			
80-250/300	30	215	213	○	72,5	63,5			65,3	64,3	62,5	59,8	56,5	52,4	47,8	42,7	37,3	
80-250/370	37	229	226	●	73,3	72,4			74,6	73,8	72,3	70,0	66,9	63,2	58,9	54,1	48,8	41,4

PUMP TYPE	P_N	Ø Impeller (mm) STD	B	○ ●	ηp %	Q = DELIVERY l/s 0	9,7	15,8	21,9	28,1	34,2	40,3	46,4	52,5	58,6	64,7	70,8	76,4
						m^3/h 0	35	57	79	101	123	145	167	189	211	233	255	275
	kW	(1)		(2)	(3)	H = TOTAL HEAD METRES COLUMN OF WATER												
100-160/110	11	144	144	○	68,3	24,7	24,0	23,5	22,6	21,3	19,5	16,9						
100-160/150	15	158	158	○	70,4	32,4		30,9	30,0	28,6	26,8	24,5	21,5					
100-160/185	18,5	168	168	○	71,4	36,9		35,4	34,4	33,2	31,5	29,4	26,7	23,5				
100-160/220	22	177	177	●	72,5	41,2		39,7	38,7	37,5	36,0	34,0	31,6	28,6	25,0			
100-200/220	22	181	177	○	73,9	42,5		41,6	41,4	40,8	39,6	37,6	34,7	30,9	26,0			
100-200/300	30	195	192	○	75,0	49,4		48,3	48,1	47,6	46,7	45,1	42,7	39,5	35,3	30,2		
100-200/370	37	208	204	●	76,5	57,5		56,3	56,0	55,6	54,8	53,5	51,5	48,8	45,3	40,9	35,6	29,9
100-250/370	37	214	211	●	76,9	63,0			60,0	59,2	57,9	56,0	53,3	49,8	45,4			

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

LNT-65-80-100_2p50S-en_b_th

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

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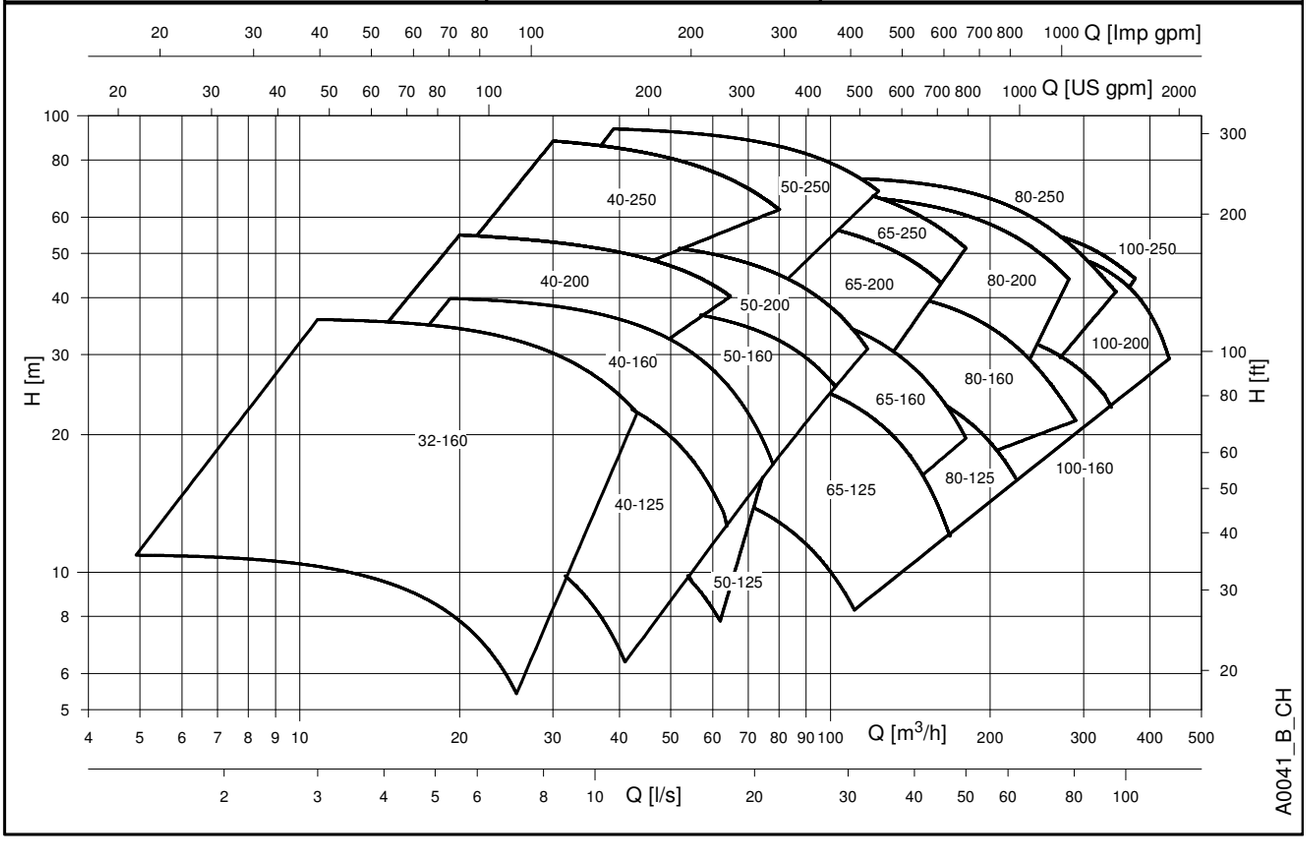
e-LNT SERIES (PARALLEL OPERATION)
HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 2 POLES

LNT (P)	~ 2950 [rpm]	ISO 9906:2012 - Grade 3B



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

PUMP TYPE	PN kW	Ø Impeller (mm) STD (1)	Ø Impeller (mm) B (1)	Ø Impeller (mm) ○ ● (2)	Q = DELIVERY l/s 0	1,4	2,2	3,1	3,9	4,7	5,6	6,4	7,2	8,1	8,9	9,7	11,9
					m3/h 0	5	8	11	14	17	20	23	26	29	32	35	43
					H = TOTAL HEAD METRES COLUMN OF WATER												
32-160/07A*	0,75	92	-	○	10,7	10,9	10,7	10,3	9,6	8,8	7,8	6,6					
32-160/07*	0,75	104	-	○	13,1		12,9	12,6	12,0	11,2	10,1	8,8	7,3				
32-160/11*	1,1	115	-	○	16,5		17,0	16,7	16,2	15,5	14,7	13,6	12,3	10,8			
32-160/15*	1,5	126	-	○	21,1		21,1	20,8	20,4	19,7	18,9	17,9	16,7	15,3	13,6		
32-160/22*	2,2	138	-	○	26,8			26,8	26,4	25,8	25,0	24,1	22,9	21,6	20,2	18,5	
32-160/30	3	156	-	●	35,8			35,8	35,5	34,9	34,2	33,2	32,1	30,7	29,2	27,5	22,5

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

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

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

LNT-32-40-50_2p50P-en_a_th

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

*Available also in single-phase version.

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

PUMP TYPE	PN	Ø Impeller (mm) STD	B	○ ●	Q = DELIVERY l/s 0	10,0	14,2	18,3	22,5	26,7	30,8	35,0	39,2	43,3	47,5	51,7	55,0
					m3/h 0	36	51	66	81	96	111	126	141	156	171	186	198
	kW	(1)		(2)	H = TOTAL HEAD METRES COLUMN OF WATER												
65-125/30	3	118	-	○	18,2		15,7	14,4	12,7	10,6	8,3						
65-125/40	4	130	-	○	23,0		20,1	18,9	17,3	15,3	12,9	10,2					
65-125/55	5,5	144	-	○	28,4		25,4	24,5	23,1	21,2	18,8	16,1	13,1				
65-125/75	7,5	148	-	●	32,1			28,0	26,7	25,1	23,2	20,8	18,0	14,8			
65-160/55	5,5	144	-	○	27,0		25,6	24,8	23,5	21,8	19,7	17,2					
65-160/75	7,5	159	-	○	33,3		31,6	30,7	29,4	27,6	25,5	22,9	20,0	16,9			
65-160/92	9,2	170	-	○	37,1		35,3	34,4	33,1	31,4	29,2	26,7	23,8	20,6			
65-160/110A	11	170	-	○	37,1		35,3	34,4	33,1	31,4	29,2	26,7	23,8	20,6			
65-160/110	11	176	-	●	42,0			39,1	37,8	36,1	34,0	31,5	28,6	25,3	21,8		
65-200/92	9,2	168	-	○	36,6		37,0	36,2	35,0	33,4	31,1						
65-200/110A	11	168	-	○	36,6		37,0	36,2	35,0	33,4	31,1						
65-200/110	11	179	-	○	42,5		42,9	41,9	40,6	38,9	36,7	33,7					
65-200/150	15	197	-	○	54,2		54,6	53,5	51,9	50,1	47,9	45,1	41,8				
65-200/185	18,5	209	-	●	62,0			60,9	59,3	57,3	54,8	51,9	48,5	44,6			
65-250/150	15	208	-	○	58,8		59,5	58,1	55,9	53,0	49,5	45,5	41,0	36,2			
65-250/185	18,5	220	-	○	65,0		66,7	65,8	64,2	62,1	59,4	56,3	52,7	48,8	44,6		
65-250/220	22	232	-	○	73,9		75,8	74,9	73,4	71,3	68,7	65,5	62,0	58,1	53,9		
65-250/300	30	256	-	●	90,9			91,6	89,7	87,2	84,0	80,4	76,3	71,8	67,0	62,0	57,8

PUMP TYPE	P_N	Ø Impeller (mm) STD	B	○ ●	Q = DELIVERY l/s 0	11,9	19,4	26,9	34,4	41,9	49,4	56,9	64,4	71,9	79,4	86,9	95,8
					m^3/h 0	43	70	97	124	151	178	205	232	259	286	313	345
	kW	(1)		(2)	H = TOTAL HEAD METRES COLUMN OF WATER												
80-125/40	4	117,8	-	○	17,7		16,3	15,0	13,0	10,7							
80-125/110	11	148	144	●	30,5		28,9	27,9	26,5	24,5	21,8	18,6	14,8				
80-160/55	5,5	130,7	-	○	21,7	20,7	20,2	18,7	16,2								
80-160/75	7,5	145	144	○	27,1		25,4	24,3	22,3	19,4							
80-160/92	9,2	151	152	○	31,3		29,5	28,6	26,9	24,2	20,9	17,2					
80-160/110A	11	151	152	○	31,3		29,5	28,6	26,9	24,2	20,9	17,2					
80-160/110	11	162	160	○	34,9		33,0	32,2	30,7	28,3	25,2	21,5					
80-160/150	15	176	176	○	42,7		40,6	39,9	38,7	36,8	34,1	30,8	26,9	22,9			
80-160/185	18,5	180	180	●	45,3			42,4	41,3	39,5	37,0	33,8	30,0	26,0	22,0		
80-200/110	11	165	162	○	35,5		35,1	33,5	30,8	27,2	23,0						
80-200/150	15	177	177	○	43,0		42,8	41,5	39,3	36,1	32,1	27,6					
80-200/185	18,5	189	189	○	49,4		49,2	48,2	46,2	43,3	39,6	35,3	30,6				
80-200/220	22	199	199	○	55,1		54,9	54,0	52,3	49,7	46,2	42,1	37,4				
80-200/300	30	220	218	●	68,1			67,3	65,9	63,8	60,8	57,2	52,8	48,1			
80-250/220	20	195	192	○	52,3		52,5	51,9	50,4	48,0	44,5	40,4	35,8	31,3			
80-250/300	30	215	213	○	64,2			64,1	63,0	61,1	58,3	54,7	50,3	45,6	40,7	36,3	
80-250/370	37	229	226	●	73,3			73,3	72,5	70,9	68,5	65,2	61,2	56,7	51,7	46,7	41,2

PUMP TYPE	P_N	Ø Impeller (mm) STD	B	○ ●	Q = DELIVERY l/s 0	21,9	30,8	39,7	48,6	57,5	66,4	75,3	84,2	93,1	101,9	110,8	120,8
					m^3/h 0	79	111	143	175	207	239	271	303	335	367	399	435
	kW	(1)		(2)	H = TOTAL HEAD METRES COLUMN OF WATER												
100-160/110	11	144	144	○	24,7		23,0	21,9	20,1	17,5							
100-160/150	15	158	158	○	32,4		30,2	29,1	27,7	25,9	23,5	20,6					
100-160/185	18,5	168	168	○	36,9		34,2	33,0	31,7	30,1	28,2	25,9	22,8				
100-160/220	22	177	177	●	41,6			36,5	35,2	33,8	32,0	29,8	27,0				
100-200/220	22	181	177	○	42,1		40,7	40,3	39,4	38,1	36,2	33,6	30,1	25,0			
100-200/300	30	195	192	○	49,0		47,5	47,1	46,4	45,3	43,7	41,6	38,9	35,3	30,3		
100-200/370	37	208	204	●	57,1		55,4	55,1	54,5	53,6	52,3	50,5	48,3	45,5	41,9	37,1	29,4
100-250/370	37	214	211	●	61,5			59,5	58,8	57,8	56,3	54,4	51,8	48,6	44,9		

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

LNT-65-80-100_2p50P-en_b_th

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

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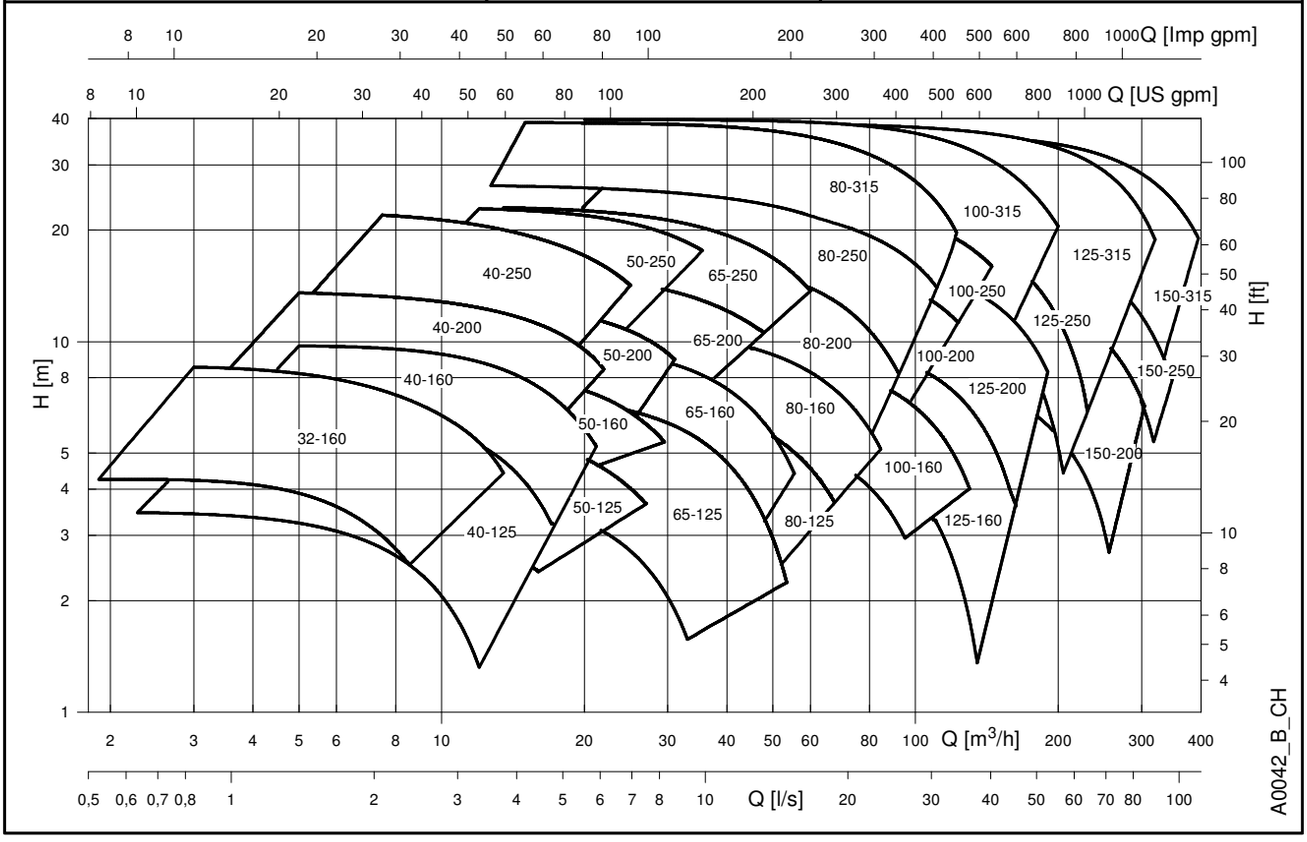
e-LNT SERIES (SINGLE OPERATION)
HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES

LNT (S)	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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

PUMP TYPE	P_N kW	Ø Impeller (mm) STD (1)	B (1)	○ ● (2)	ηp % (3)	Q = DELIVERY l/s 0	0,6	0,8	1,1	1,4	1,7	1,9	2,2	2,5	2,8	3,1	3,3	3,6
						m^3/h 0	2	3	4	5	6	7	8	9	10	11	12	13
						H = TOTAL HEAD METRES COLUMN OF WATER												
32-160/02A	0,25	115	-	○	53,9	4,1	4,3	4,2	4,1	3,9	3,6	3,2	2,8					
32-160/02	0,25	138	-	○	56,7	6,5		6,4	6,3	6,2	6,0	5,7	5,3	4,9	4,3	3,7		
32-160/03	0,37	156	-	●	59,5	8,6		8,5	8,4	8,2	7,9	7,6	7,2	6,8	6,3	5,9	5,3	4,8

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

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

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

LNT-32-40-50_4p50S-en_a_th

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

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

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

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

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

LNT-65-80_4p50S-en_b_th

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

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

PUMP TYPE	PN kW	Ø Impeller (mm) STD (1)	B (1)	○ ● (2)	ηπ % (3)	Q = DELIVERY l/s 0	5,0	9,7	14,4	19,2	23,9	28,6	33,3	38,1	42,8	47,5	52,2	55,6
						m3/h 0	18	35	52	69	86	103	120	137	154	171	188	200
						H = TOTAL HEAD METRES COLUMN OF WATER												
100-160/15	1,5	144	144	○	68,5	6,2		5,8	5,4	4,7	3,6							
100-160/22A	2,2	158	158	○	70,2	7,7		7,3	6,9	6,2	5,3	4,0						
100-160/22	2,2	168	168	○	71,0	8,7		8,3	7,9	7,2	6,3	5,1	3,6					
100-160/30	3	177	177	●	72,3	9,8		9,4	9,0	8,4	7,5	6,4	5,0					
100-200/30	3	181	177	○	71,7	10,8		10,7	10,4	9,6	8,3							
100-200/40	4	195	192	○	72,9	12,6		12,5	12,3	11,7	10,6	8,9						
100-200/55A	5,5	208	204	○	74,1	14,4		14,3	14,2	13,7	12,8	11,3						
100-200/55	5,5	219	216	●	74,9	16,1		15,9	15,8	15,5	14,7	13,4	11,6					
100-250/55A	5,5	214	211	○	71,4	15,6		15,5	15,3	14,6	13,3	11,5						
100-250/55	5,5	227	224	○	72,3	17,2		17,1	17,0	16,6	15,6	14,1						
100-250/75	7,5	241	238	○	74,4	20,0		19,8	19,7	19,3	18,4	17,0	15,1					
100-250/110	11	259	256	●	75,8	23,3		23,0	22,9	22,6	21,9	20,8	19,1	17,1				
100-315/110	11	274	274	○	67,7	26,2		26,0	25,4	24,3	22,8	20,9	18,8	16,3	13,1			
100-315/150	15	304	304	○	68,6	32,6		32,7	32,3	31,3	30,0	28,2	26,1	23,7	21,1	17,9		
100-315/185	18,5	321	321	○	69,1	36,6		36,5	36,2	35,4	34,3	32,7	30,7	28,3	25,6	22,7	19,7	
100-315/220	22	334	334	●	69,5	39,6		39,6	39,4	38,8	37,8	36,3	34,3	31,9	29,1	26,1	23,1	21,0

PUMP TYPE	P_N kW	Ø Impeller (mm) STD (1)	B (1)	○ ● (2)	ηp % (3)	Q = DELIVERY l/s 0	5,0	12,5	20,0	27,5	35,0	42,5	50,0	57,5	65,0	72,5	80,0	88,9
						m^3/h 0	18	45	72	99	126	153	180	207	234	261	288	320
						H = TOTAL HEAD METRES COLUMN OF WATER												
125-160/22	2,2	148	148	○	64,1	6,0	6,0	5,9	5,3	4,0	2,1							
125-160/30	3	167	167	○	68,9	8,3		8,1	7,6	6,4	4,5							
125-160/40	4	184	184	●	73,5	10,3		10,2	9,7	8,6	6,9	4,5						
125-200/55	5,5	202	202	○	73,4	13,0		12,8	12,3	11,3	9,6	7,2						
125-200/75	7,5	227	227	●	77,4	17,0		16,7	16,3	15,5	14,1	12,1	9,5					
125-250/75	7,5	230	230	○	75,5	17,2		17,1	16,6	15,5	13,8	11,4	8,0					
125-250/110	11	259	259	●	77,1	22,1		22,1	21,6	20,6	19,1	17,0	14,1	10,5				
125-315/150	15	276	276	○	75,4	25,9		25,8	25,3	24,5	23,4	21,8	19,8	17,3	14,0	9,8		
125-315/185	18,5	291	291	○	75,8	28,9		28,7	28,3	27,6	26,5	25,1	23,3	20,9	18,0	14,2		
125-315/220	22	308	308	○	76,1	32,7		32,5	32,1	31,4	30,5	29,2	27,5	25,3	22,7	19,4	15,6	
125-315/300	30	334	334	●	77,0	39,2		38,8	38,5	37,9	37,2	36,1	34,6	32,7	30,4	27,5	24,1	19,4

PUMP TYPE	P_N kW	Ø Girante (mm) STD (1)	B (1)	○ ● (2)	ηp % (3)	Q = DELIVERY l/s 0	10,0	19,2	28,3	37,5	46,7	55,8	65,0	74,2	83,3	92,5	101,7	109,7
						m^3/h 0	36	69	102	135	168	201	234	267	300	333	366	395
						H = TOTAL HEAD METRES COLUMN OF WATER												
150-200/55	5,5	175	175	○	68,8	9,3	9,3	9,2	8,7	7,8	6,8	5,6	3,8					
150-200/75	7,5	195	195	○	70,6	11,9		11,7	11,2	10,5	9,4	8,1	6,5	4,7				
150-200/110	11	220	220	●	76,9	15,6		15,1	14,8	14,3	13,5	12,3	10,9	9,1	7,0			
150-250/110	11	225	225	○	76,5	16,2	16,2	16,2	16,0	15,3	14,3	12,9	11,2	9,2	6,9			
150-250/150	15	249	249	●	78,8	20,4		20,3	20,0	19,5	18,7	17,5	15,9	14,0	11,7	9,1		
150-315/185	18,5	272	272	○	76,2	24,9		24,8	24,4	23,7	22,6	21,1	19,2	16,7	13,7	10,0		
150-315/220	22	285	285	○	77,1	27,8		27,8	27,4	26,7	25,7	24,3	22,5	20,2	17,5	14,1		
150-315/300	30	308	308	○	79,3	33,1		33,1	33,0	32,5	31,6	30,3	28,6	26,6	24,2	21,4	17,9	
150-315/370	37	322	322	●	79,5	36,5		36,3	36,2	35,9	35,2	34,1	32,6	30,6	28,2	25,5	22,5	19,8

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

LNT-100-125-150_4p50S-en_a_th

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

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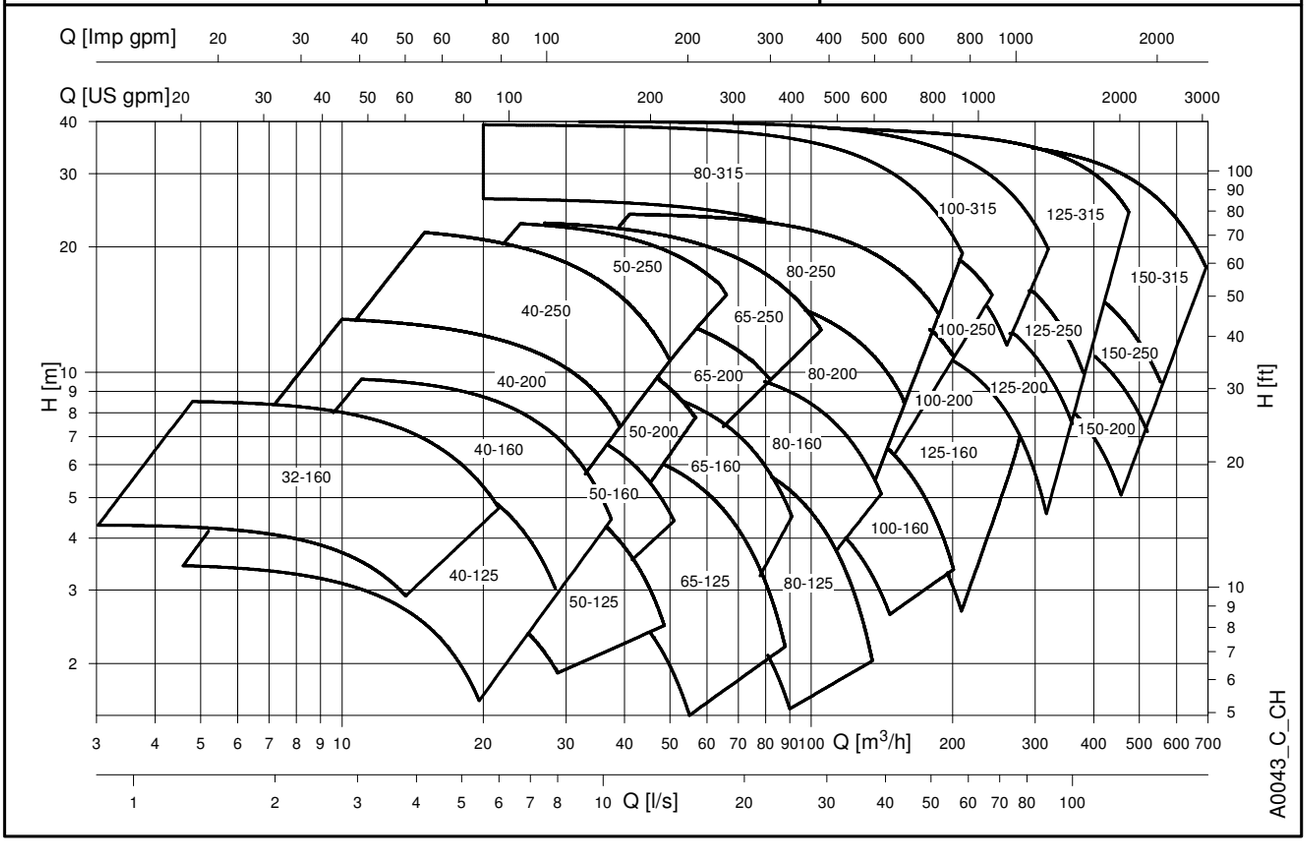
e-LNT SERIES (PARALLEL OPERATION)
HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES

LNT (P)	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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

PUMP TYPE	PN	Ø Impeller (mm) STD	B	○ ●	Q = DELIVERY l/s 0	1,1	1,4	1,7	2,2	2,8	3,3	3,9	4,2	4,7	5,0	5,6	5,8
					m3/h 0	4	5	6	8	10	12	14	15	17	18	20	21
	kW	(1)		(2)	H = TOTAL HEAD METRES COLUMN OF WATER												
32-160/02A	0,25	115	-	○	4,2	4,3	4,2	4,2	4,0	3,7	3,3						
32-160/02	0,25	138	-	○	6,5	6,4	6,4	6,4	6,2	5,9	5,6	5,1	4,8	4,3			
32-160/03	0,37	156	-	●	8,6		8,5	8,5	8,3	8,0	7,6	7,2	6,9	6,3	6,0	5,3	4,9

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

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

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

LNT-32-40-50_4p50P-en_a_th

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

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

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

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

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

LNT-65-80_4p50P-en_b_th

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

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

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

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

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

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

LNT-100-125-150_4p50P-en_a_th

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

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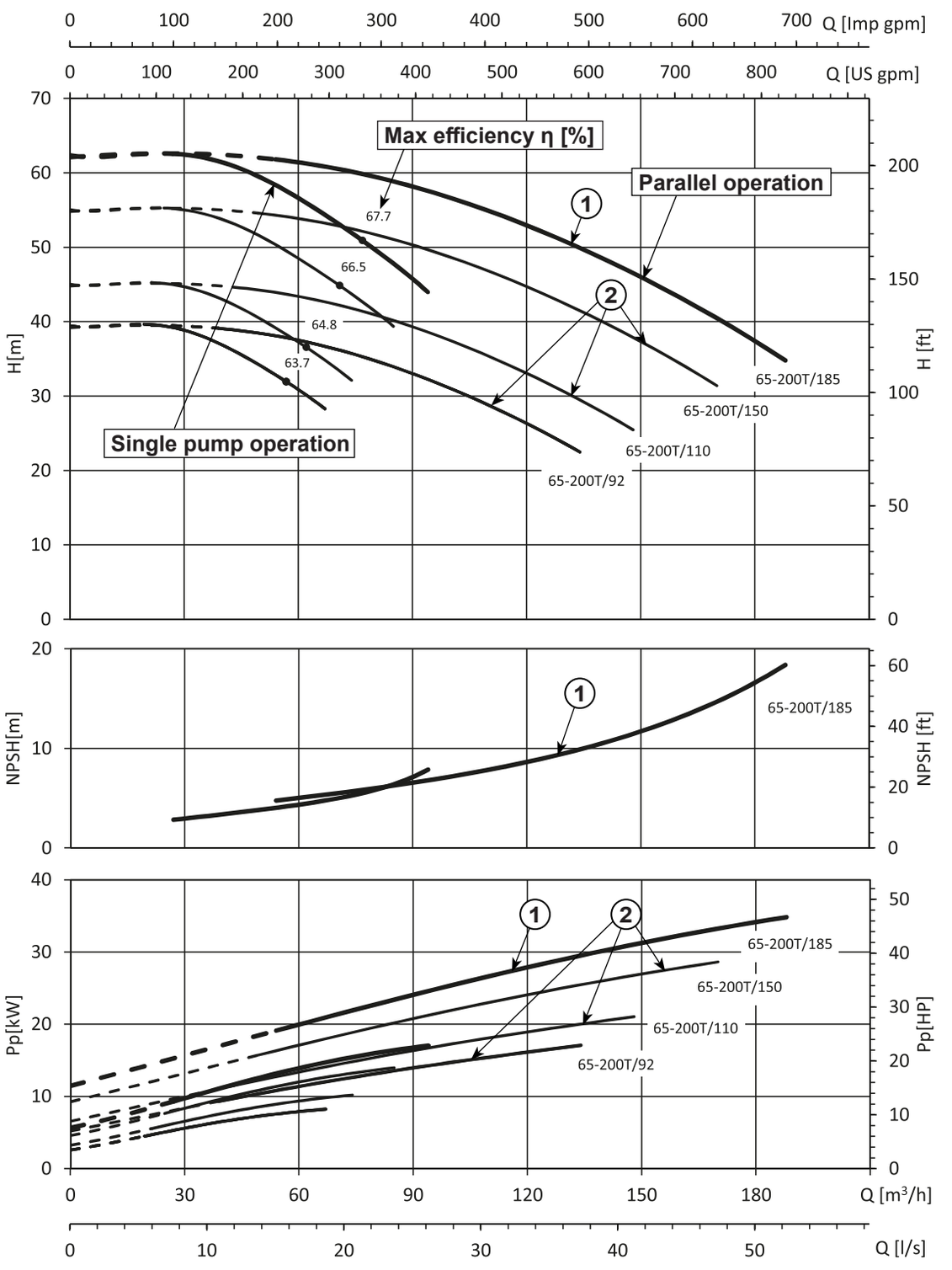
e-LNT SERIES
IDENTIFICATION OF GRAPH



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

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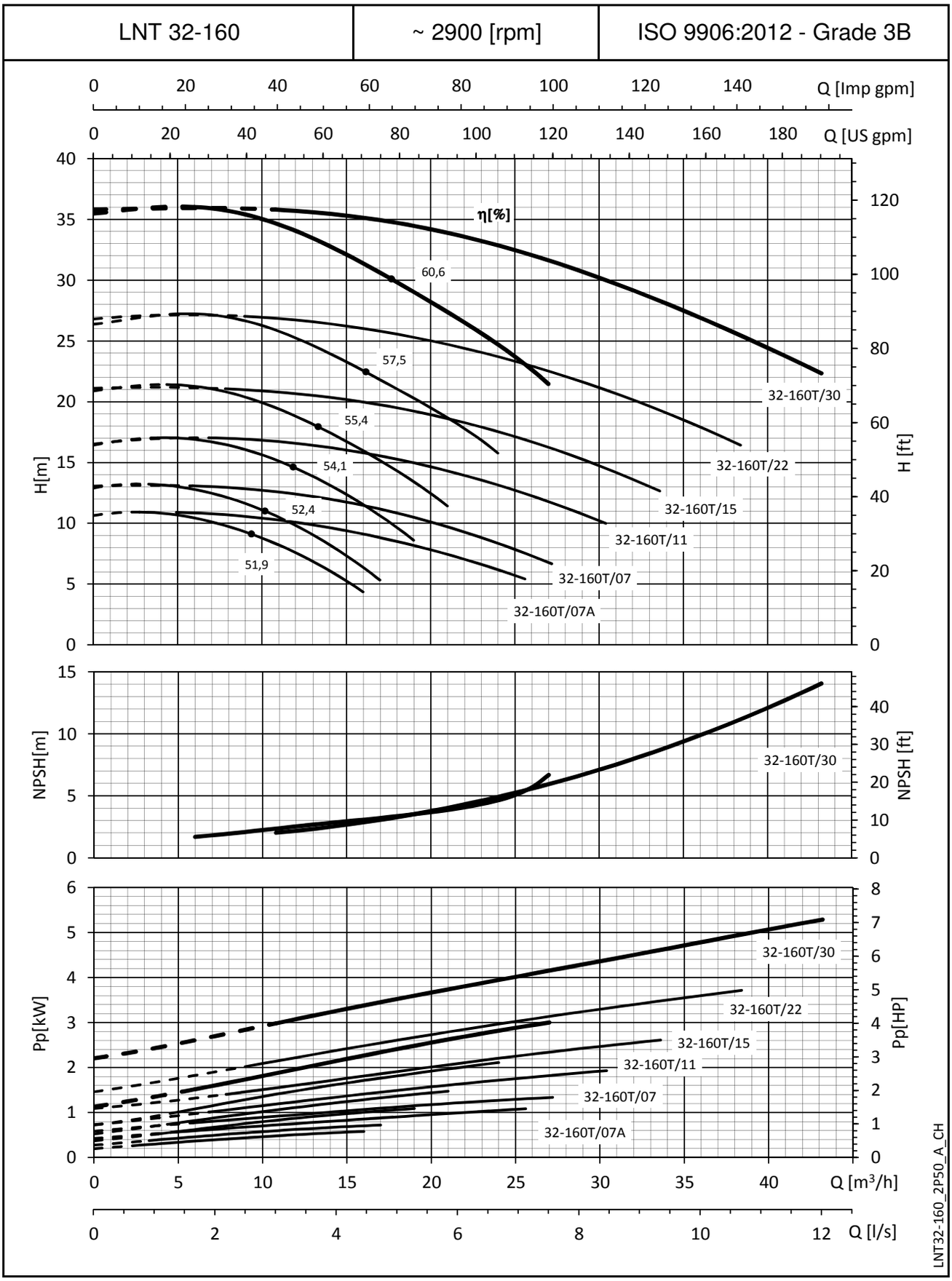
e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES

LNT 32-160	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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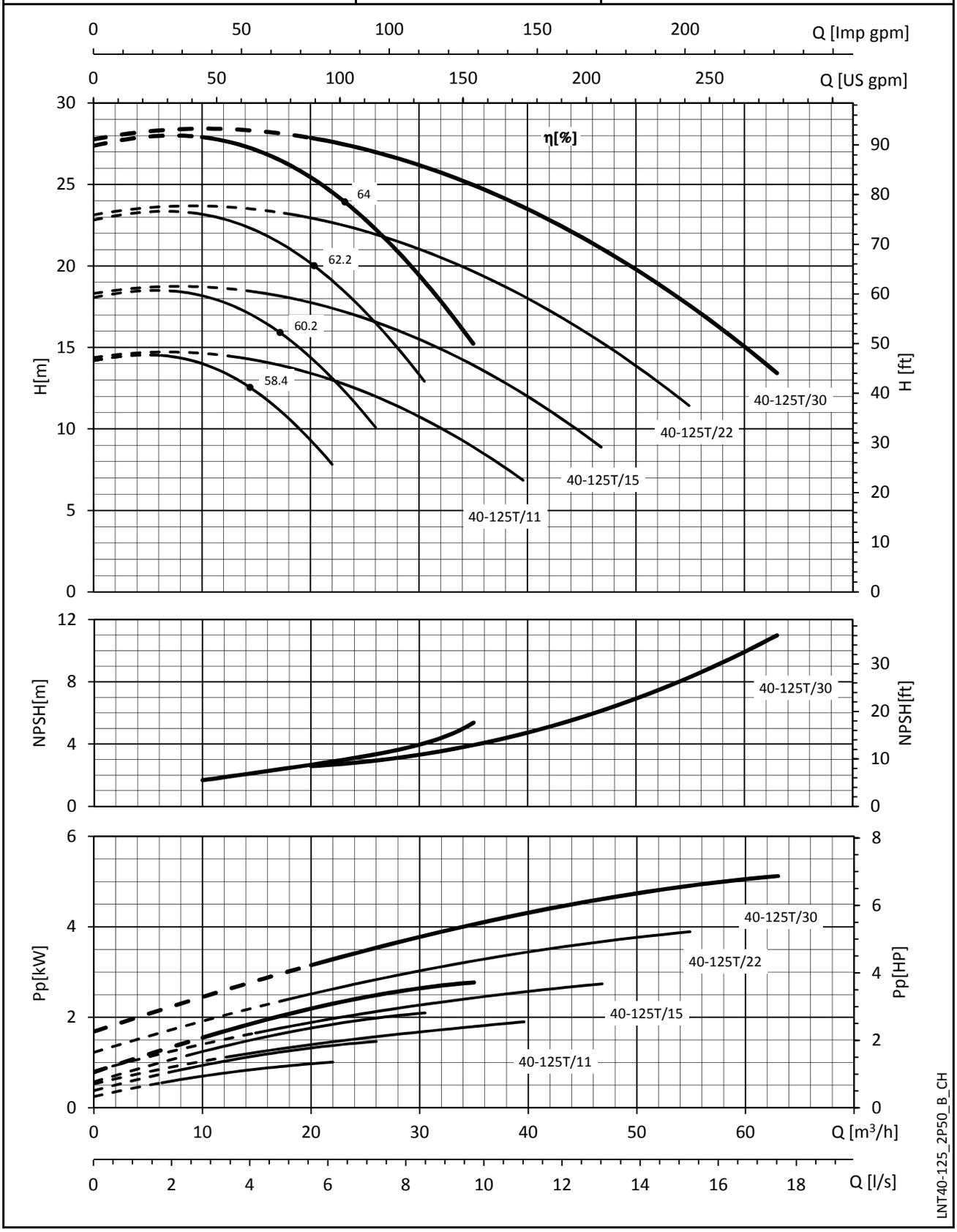
e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES

LNT 40-125	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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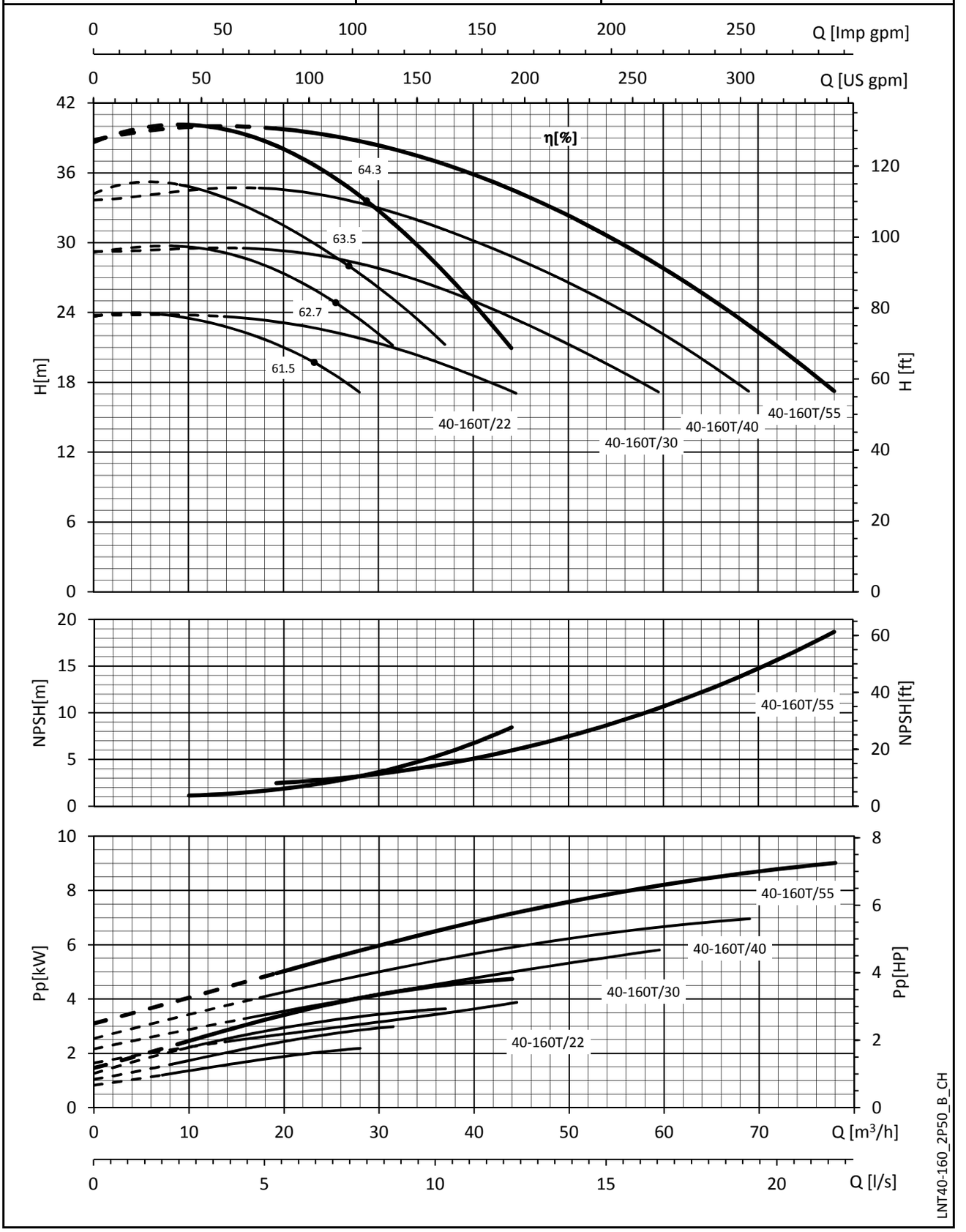
e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES

LNT 40-160	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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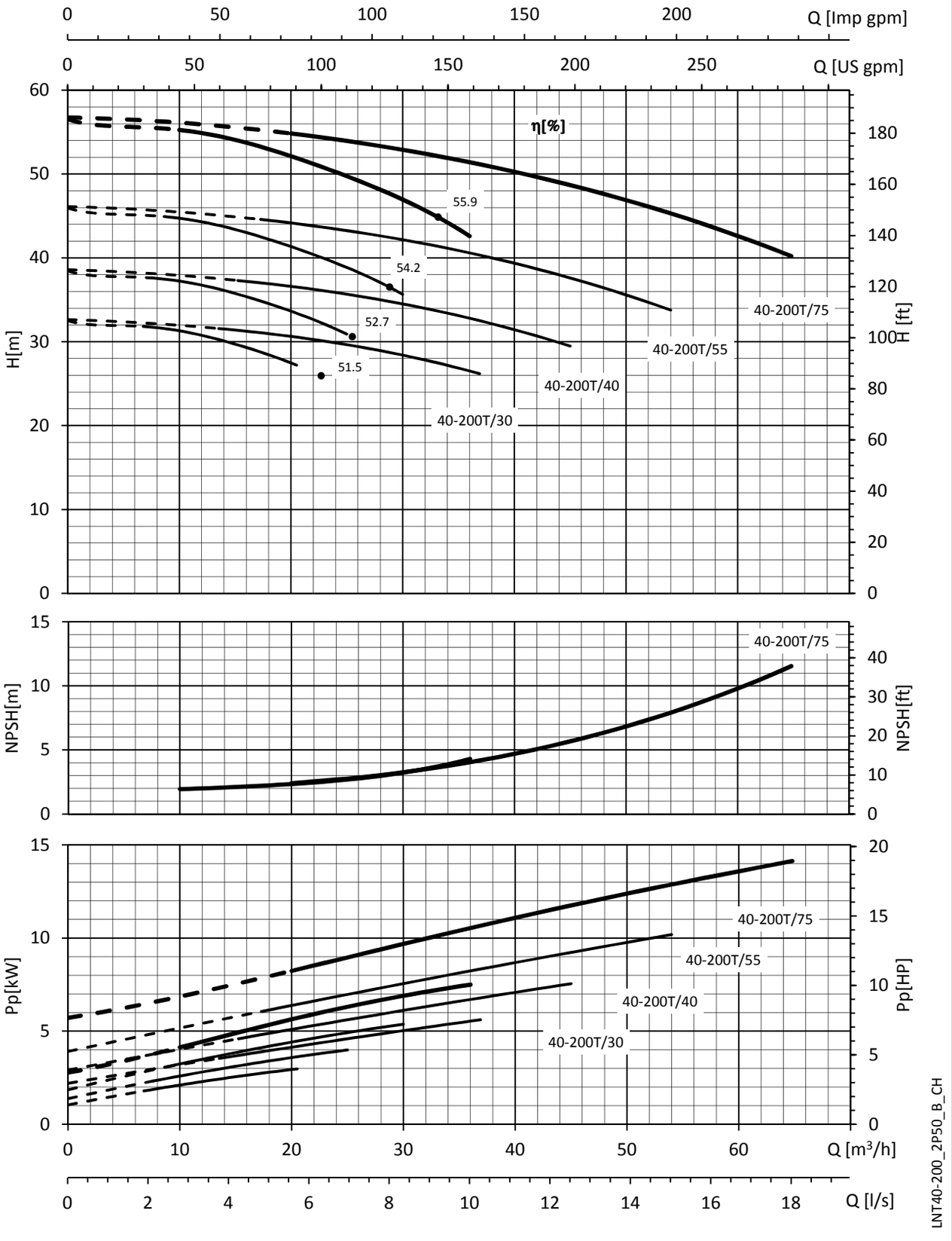
e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES

LNT 40-200	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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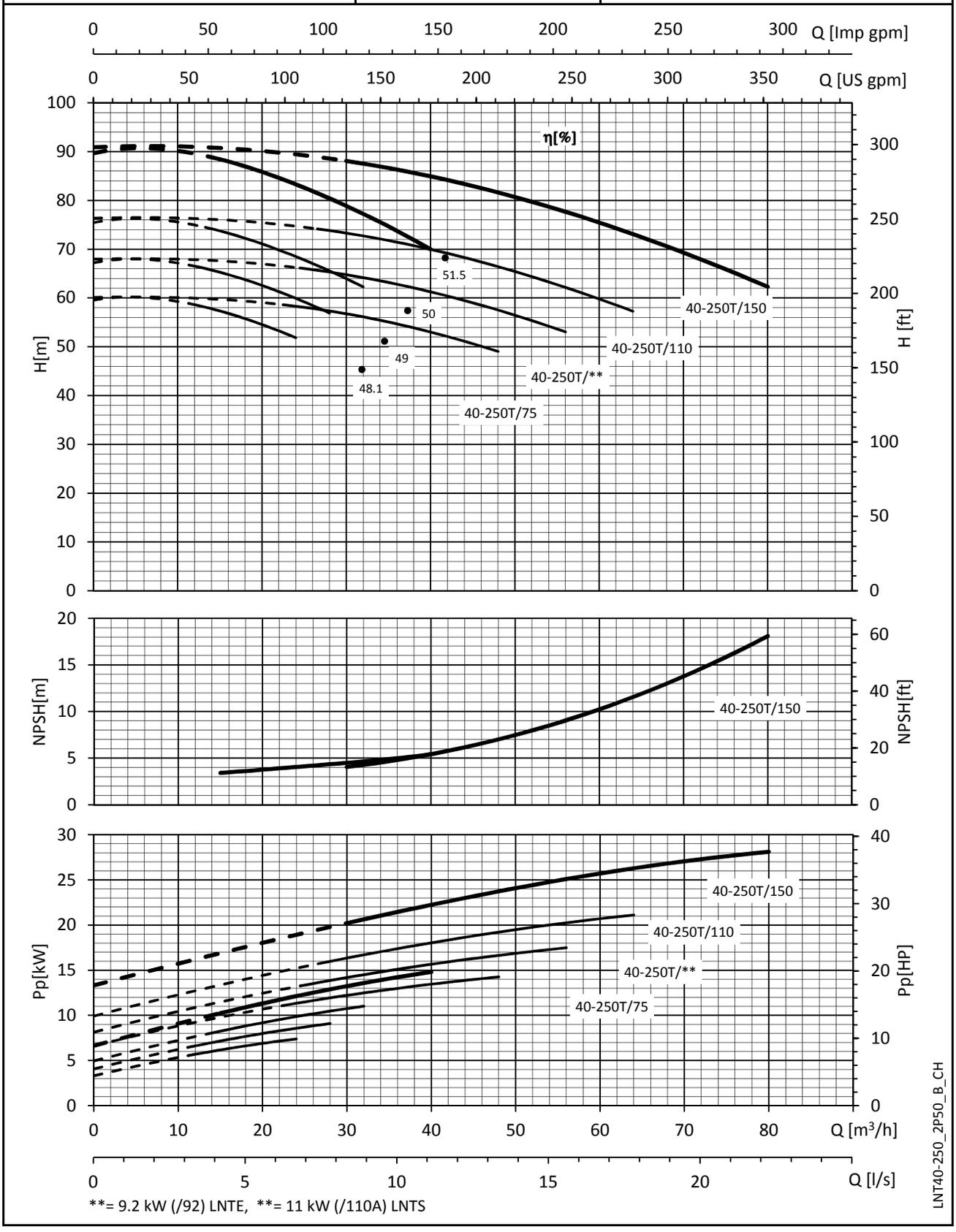
e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES

LNT 40-250	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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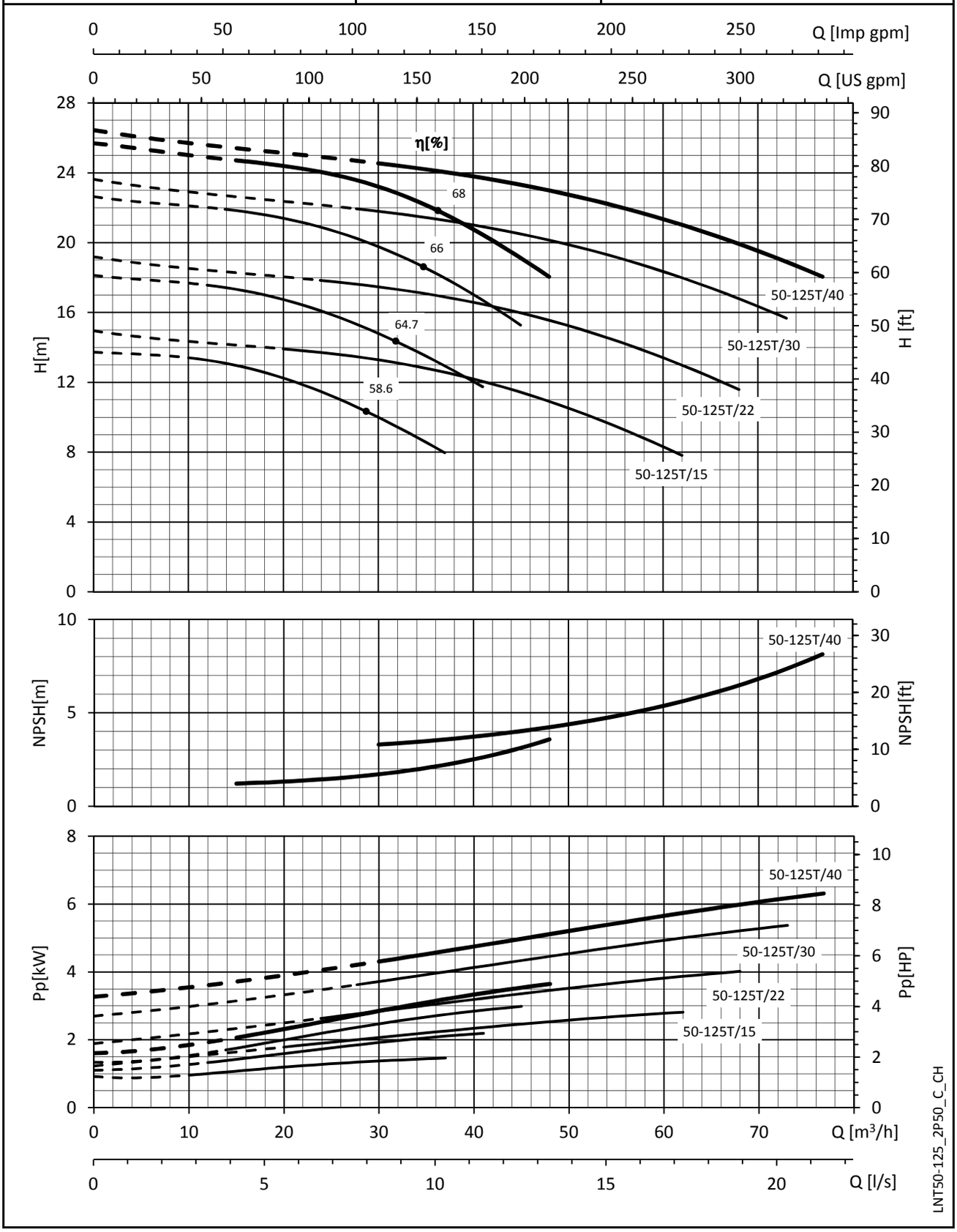
e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES

LNT 50-125	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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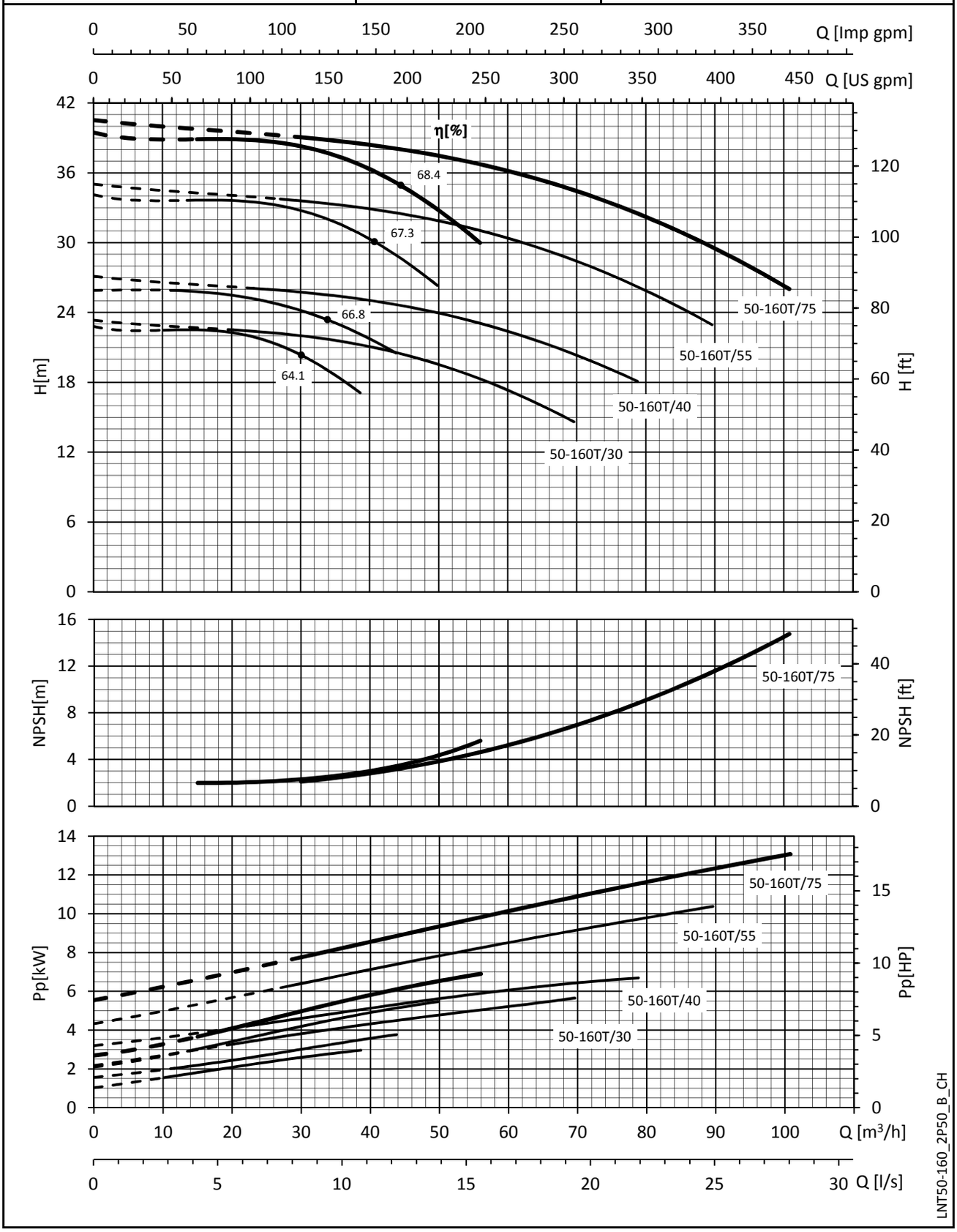
e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES

LNT 50-160	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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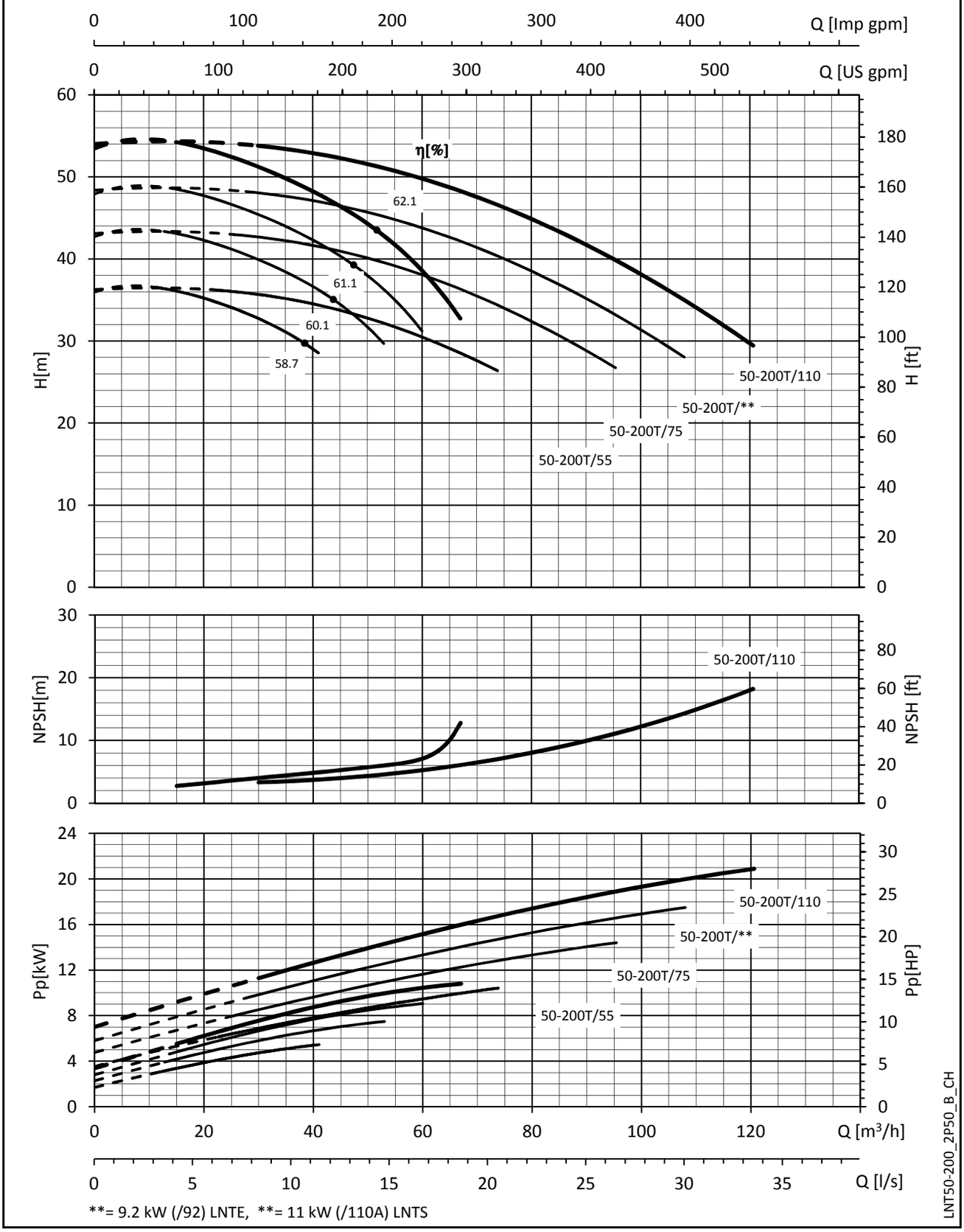
e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES

LNT 50-200	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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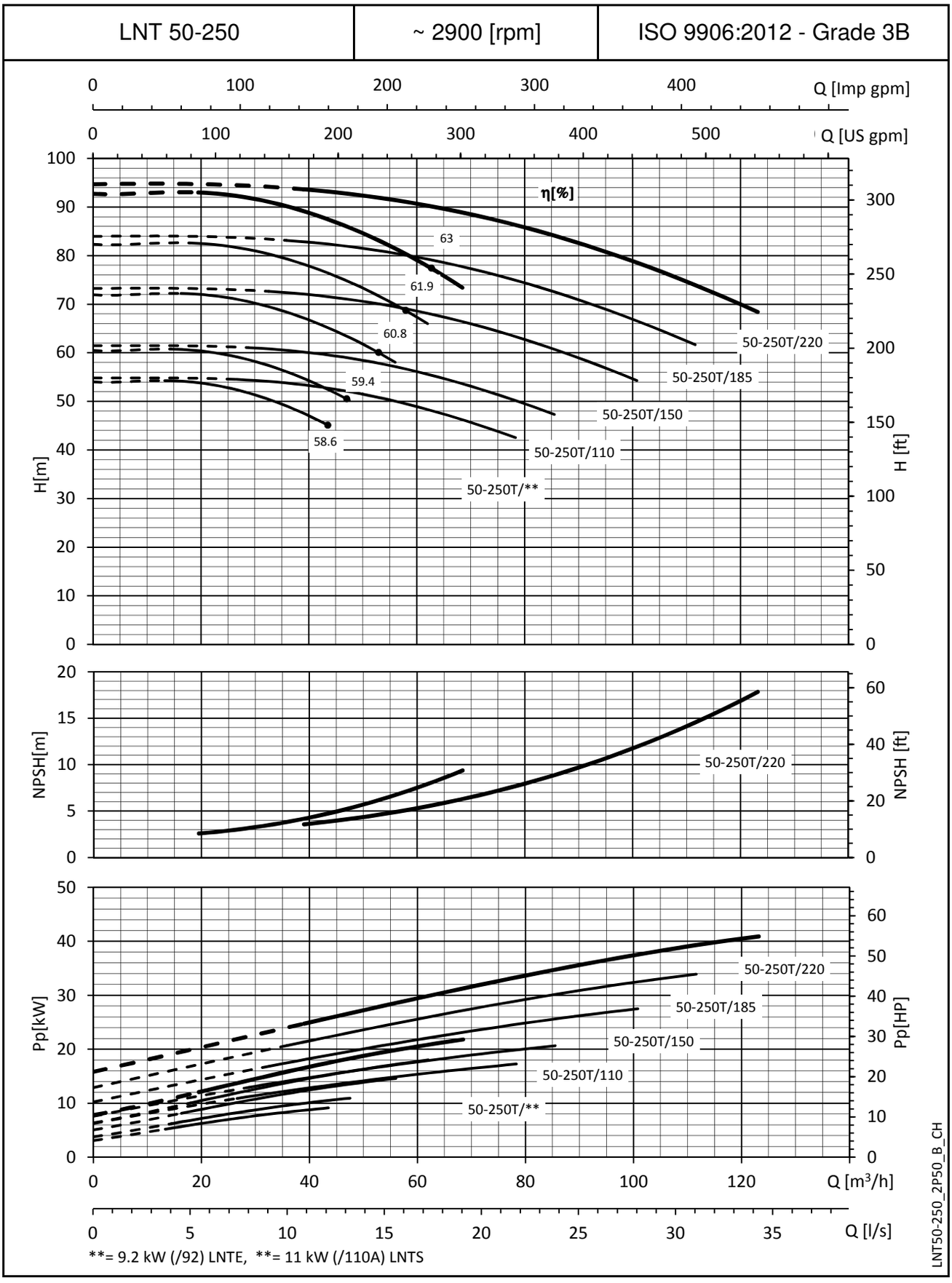
e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES

LNT 50-250	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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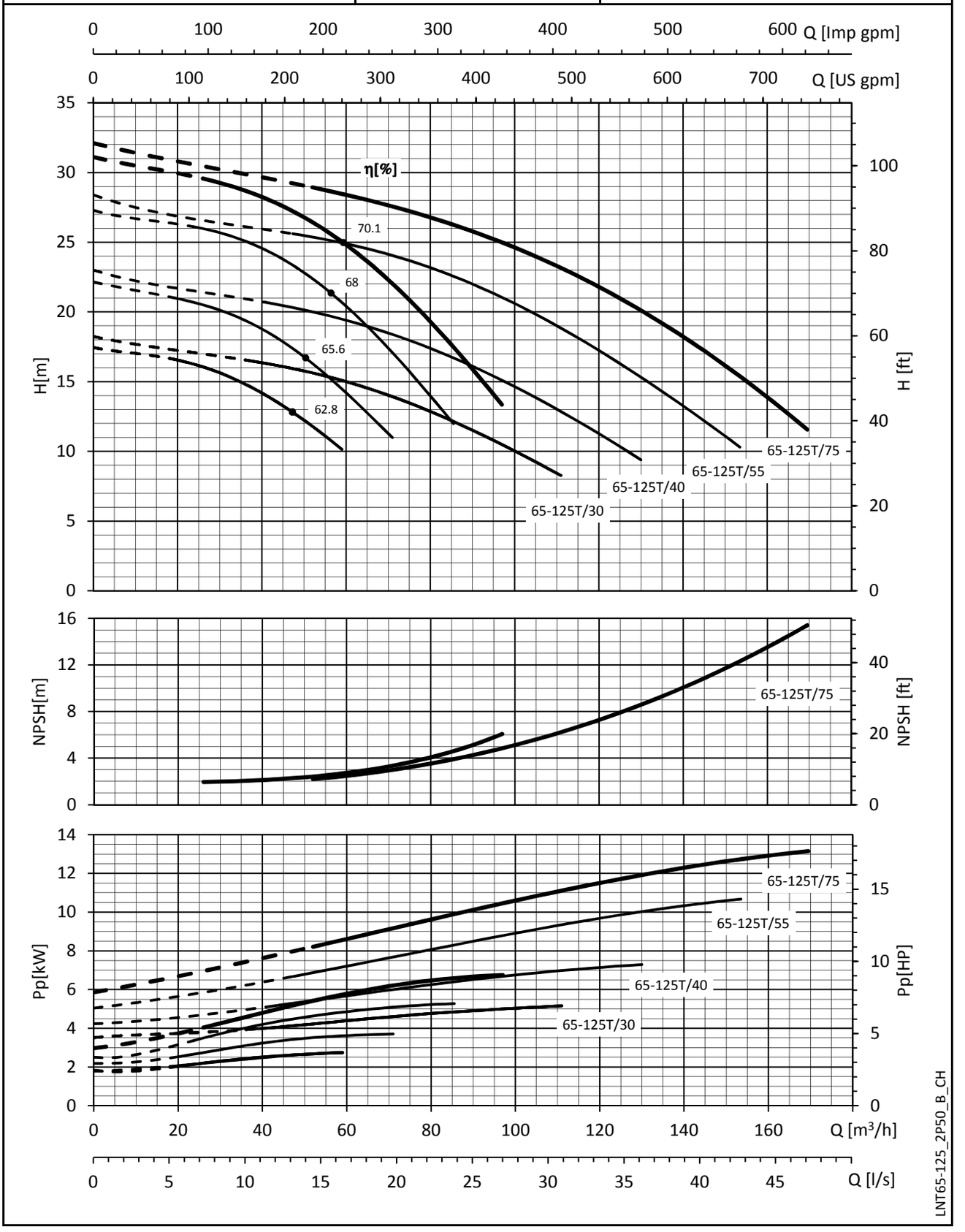
a xylem brand

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

LNT 65-125	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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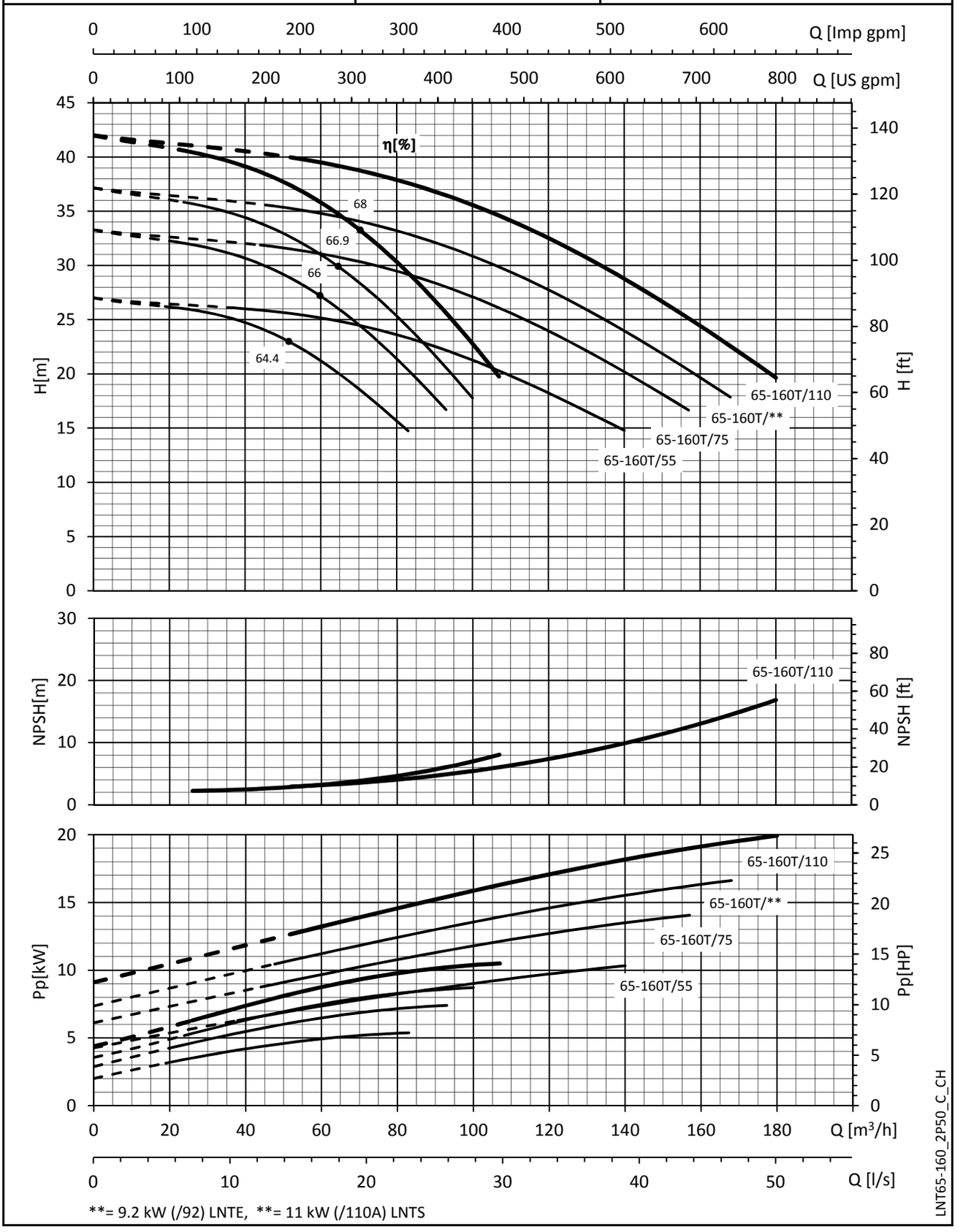
a xylem brand

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

LNT 65-160	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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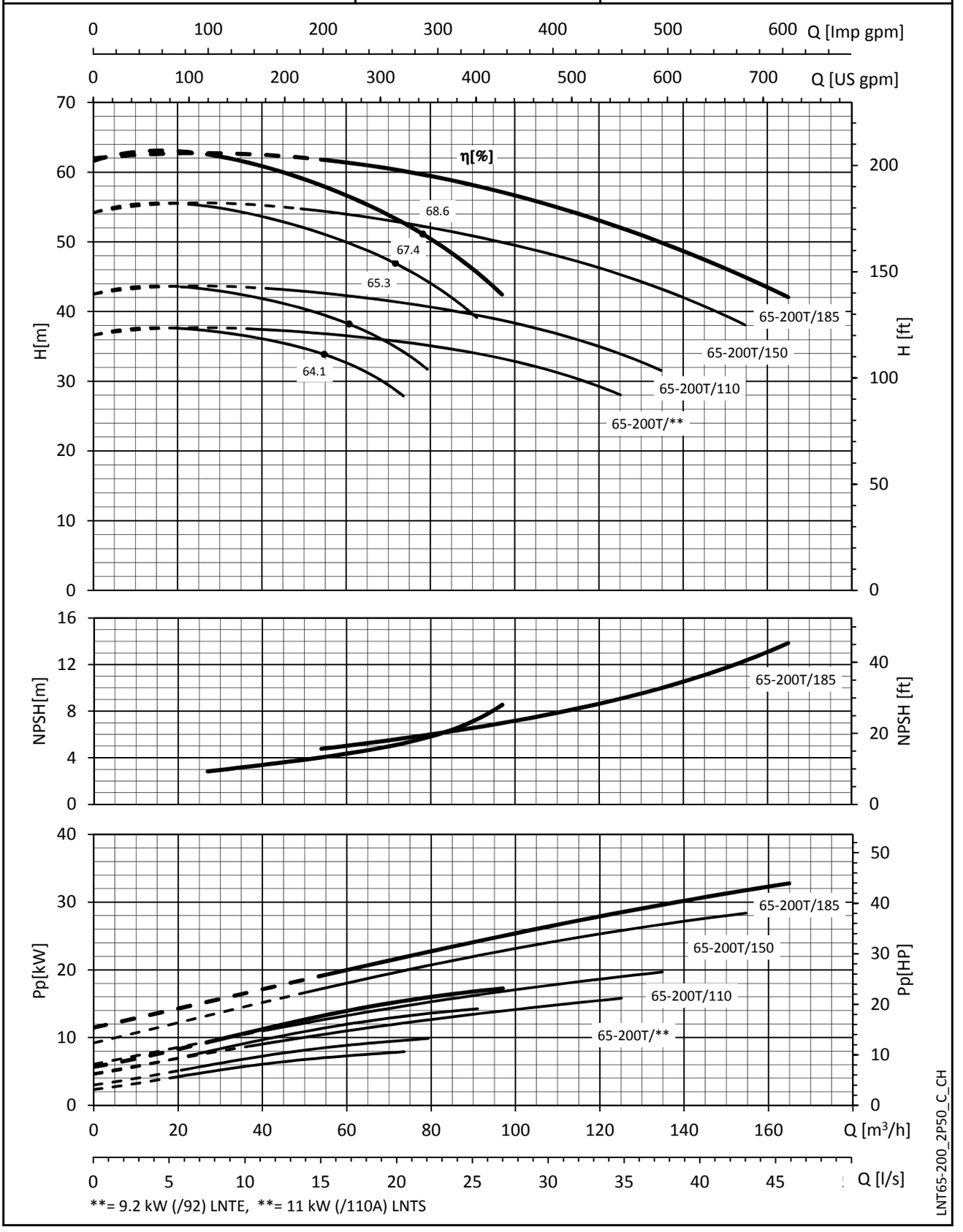
a xylem brand

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

LNT 65-200	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B

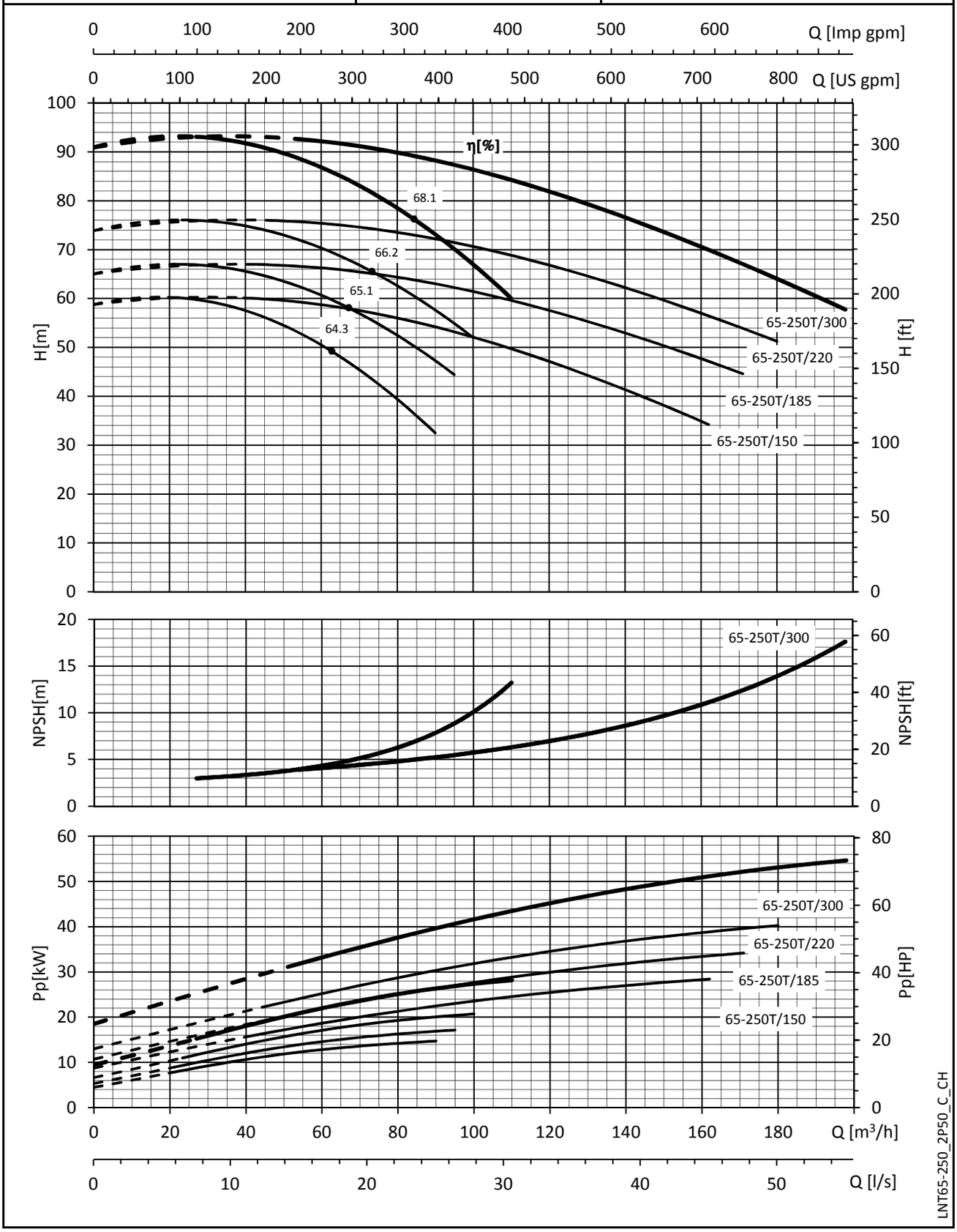


The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

LOWARA
a xylem brand

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

LNT 65-250	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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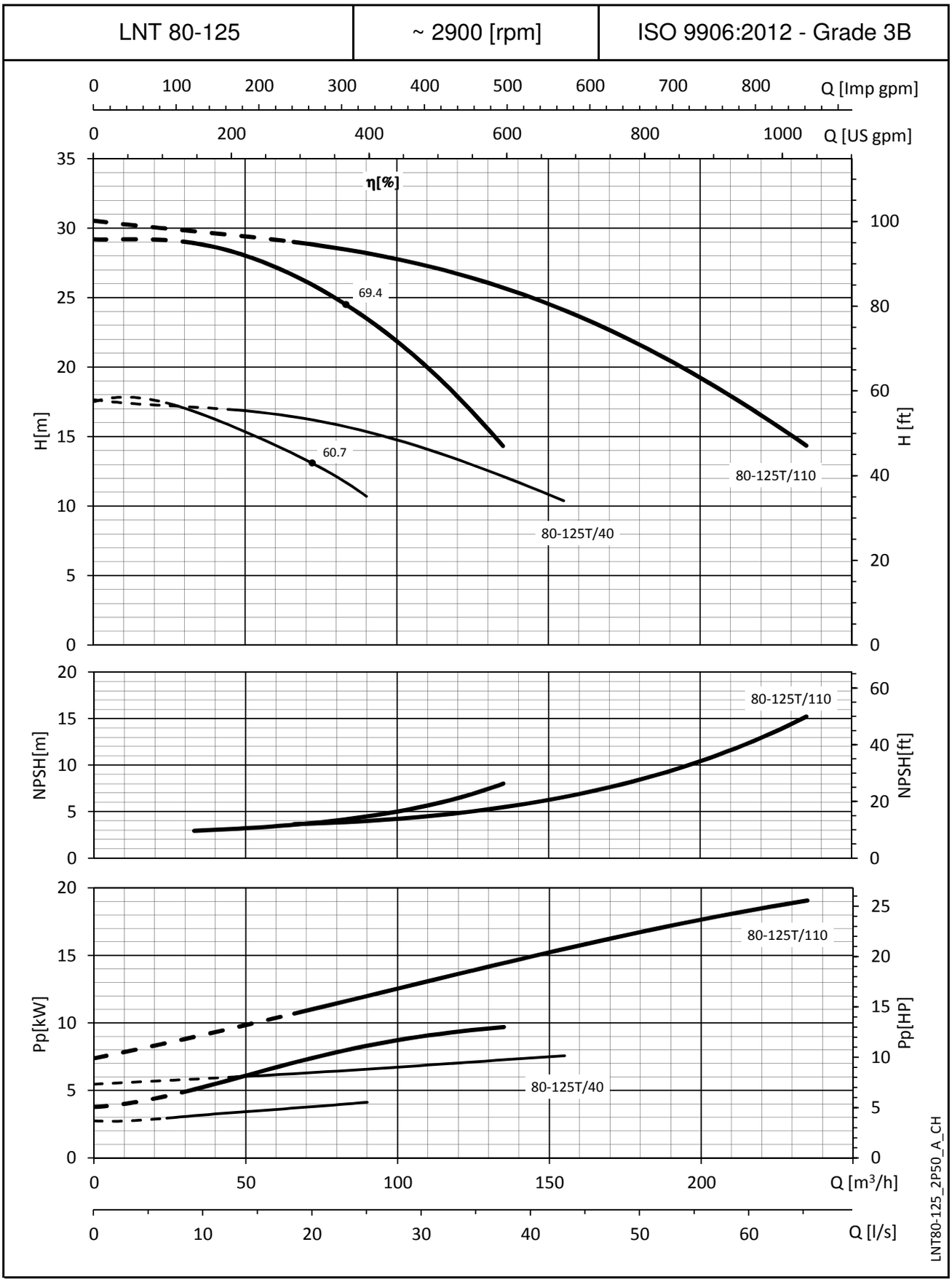
a xylem brand

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

LNT 80-125	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B

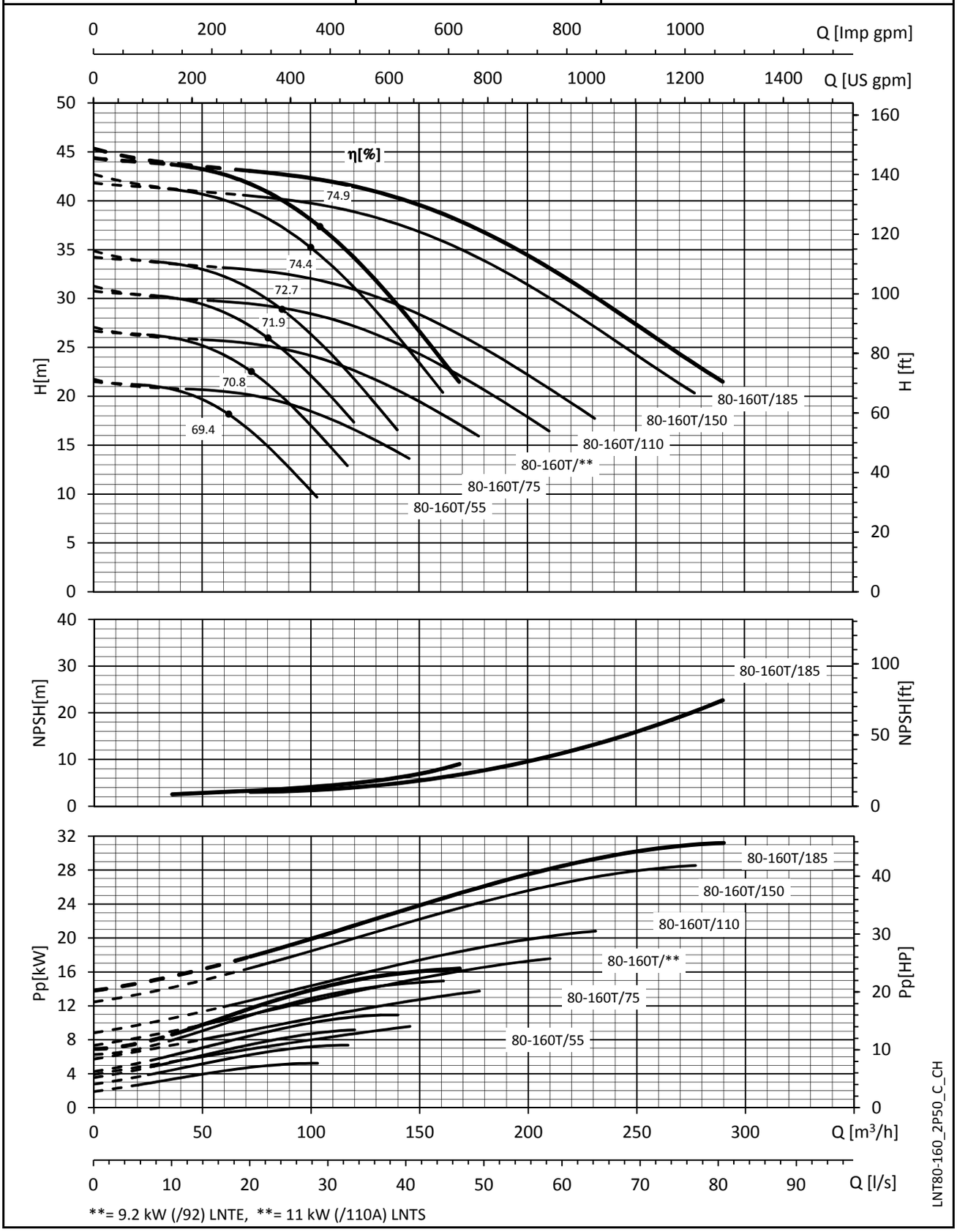


The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

LOWARA
a xylem brand

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

LNT 80-160	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B



**= 9.2 kW (/92) LNTE, **= 11 kW (/110A) LNTS

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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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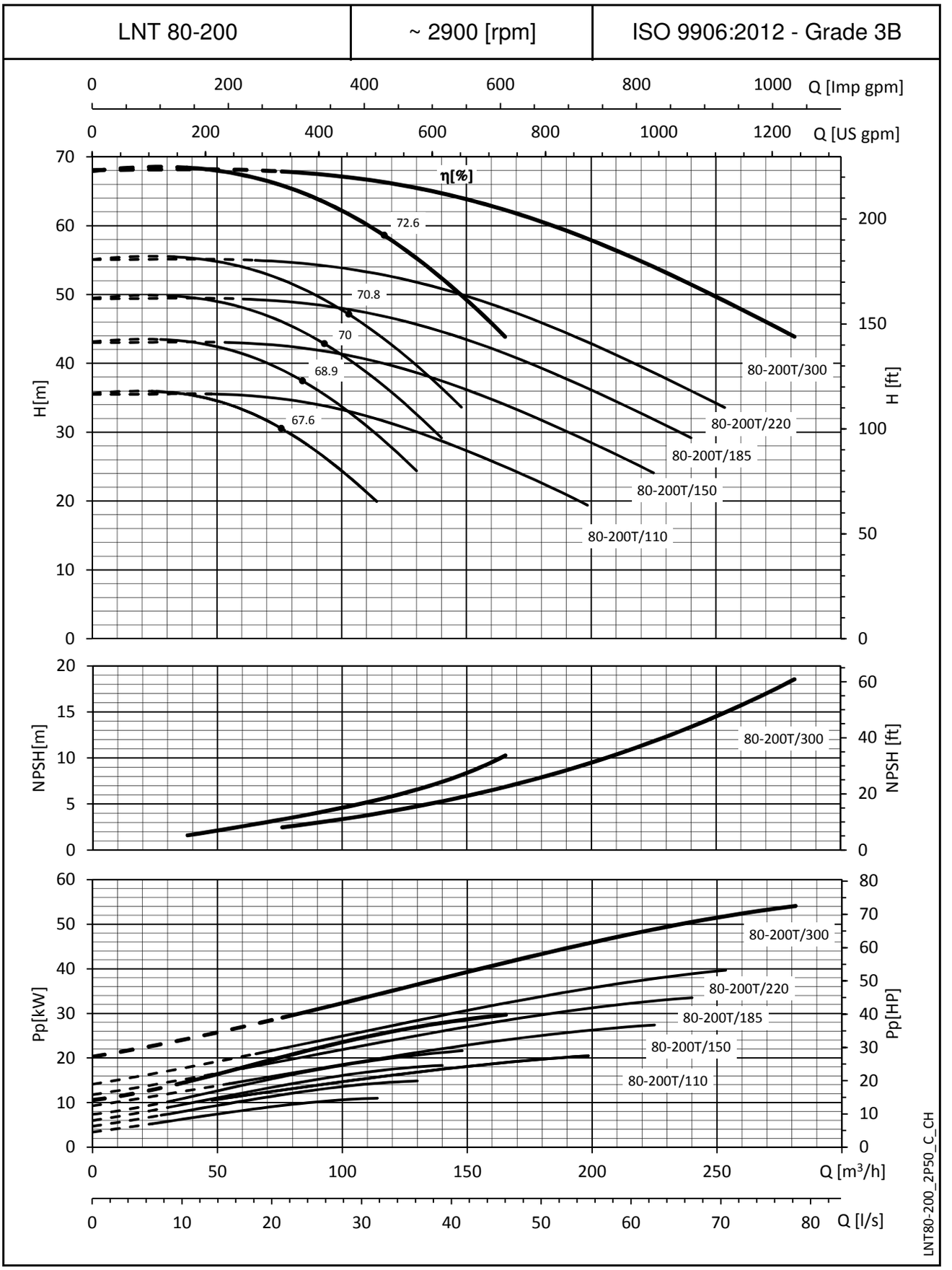
e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES

LNT 80-200	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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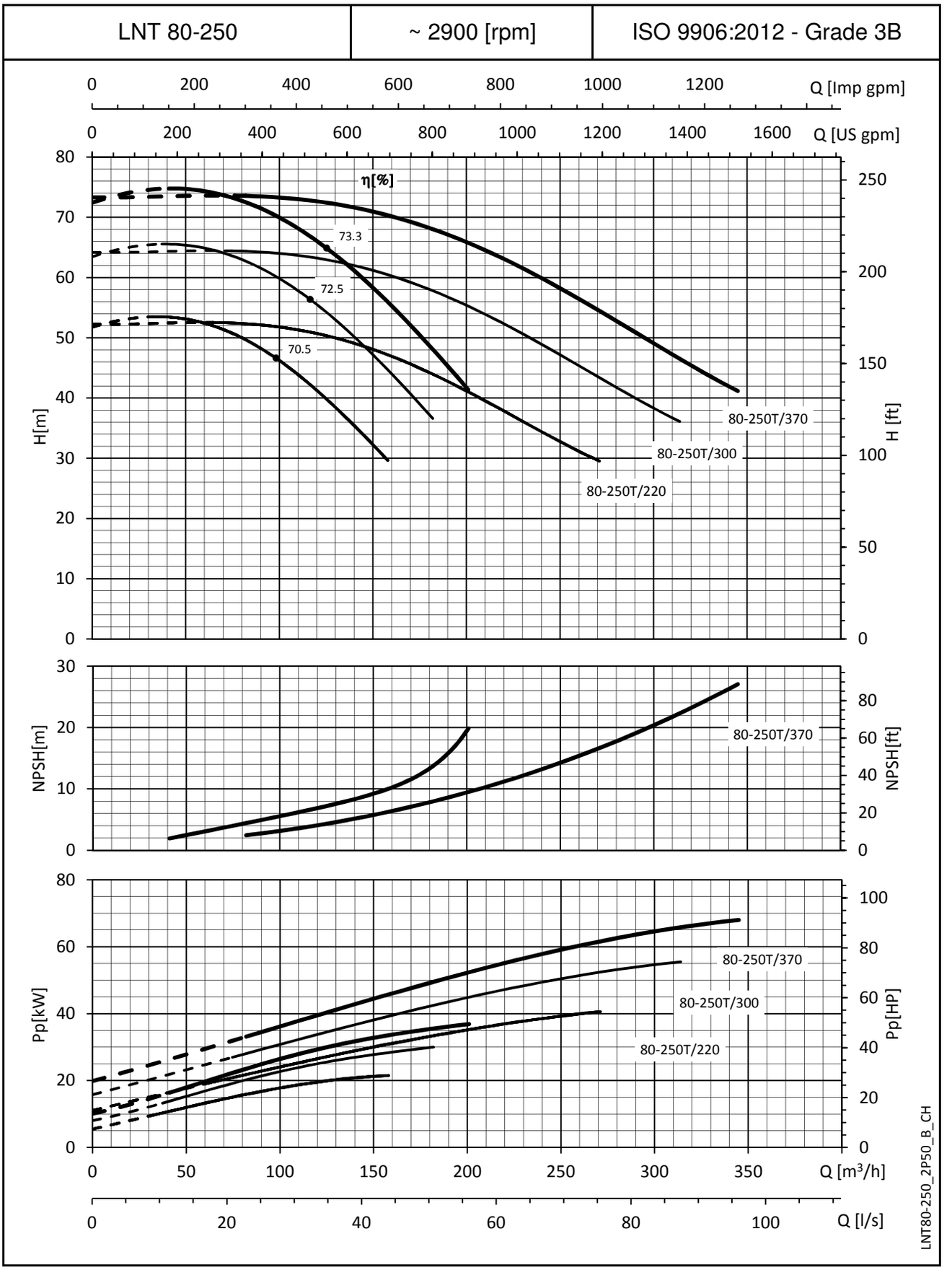
a xylem brand

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

LNT 80-250	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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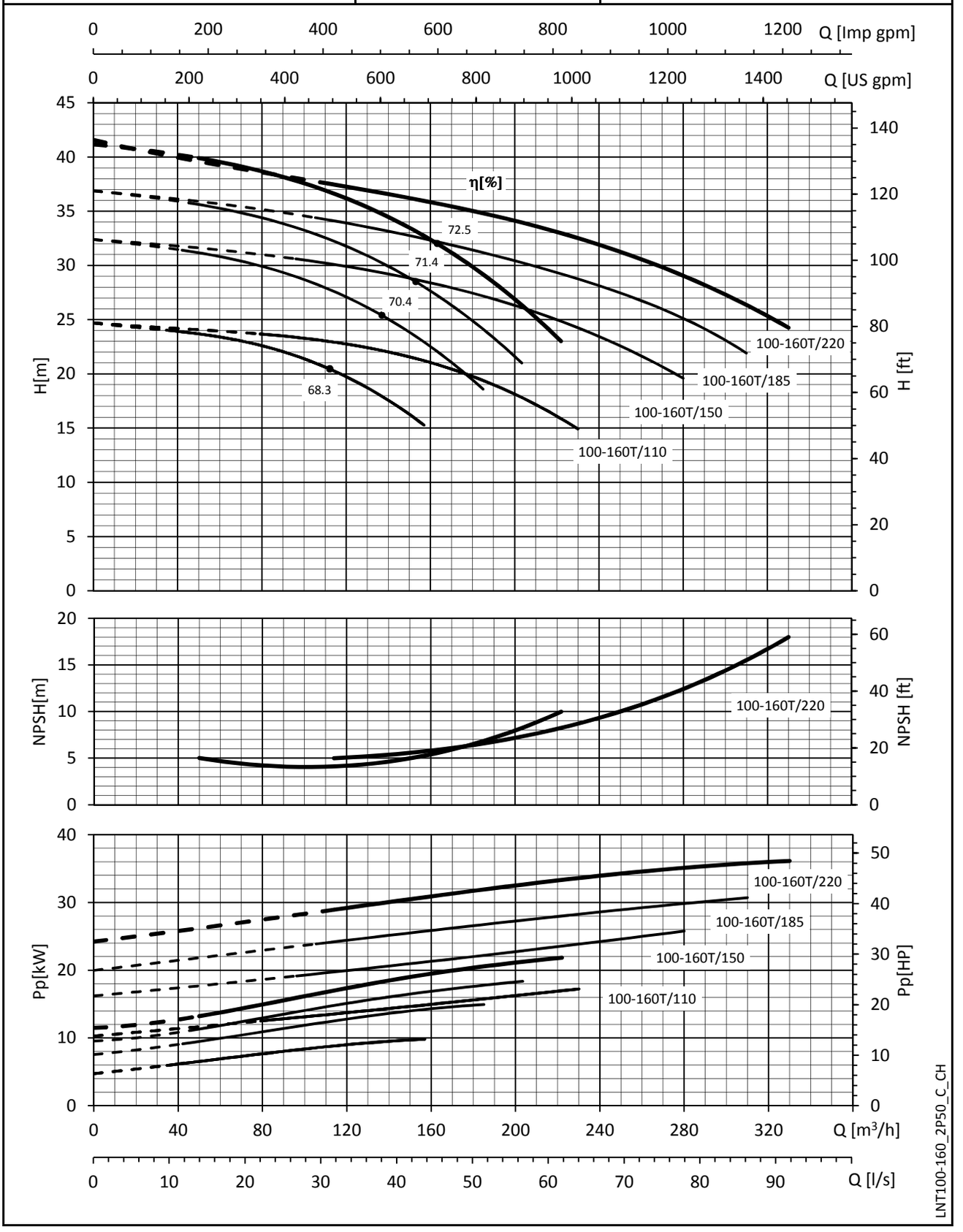
a xylem brand

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

LNT 100-160	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B

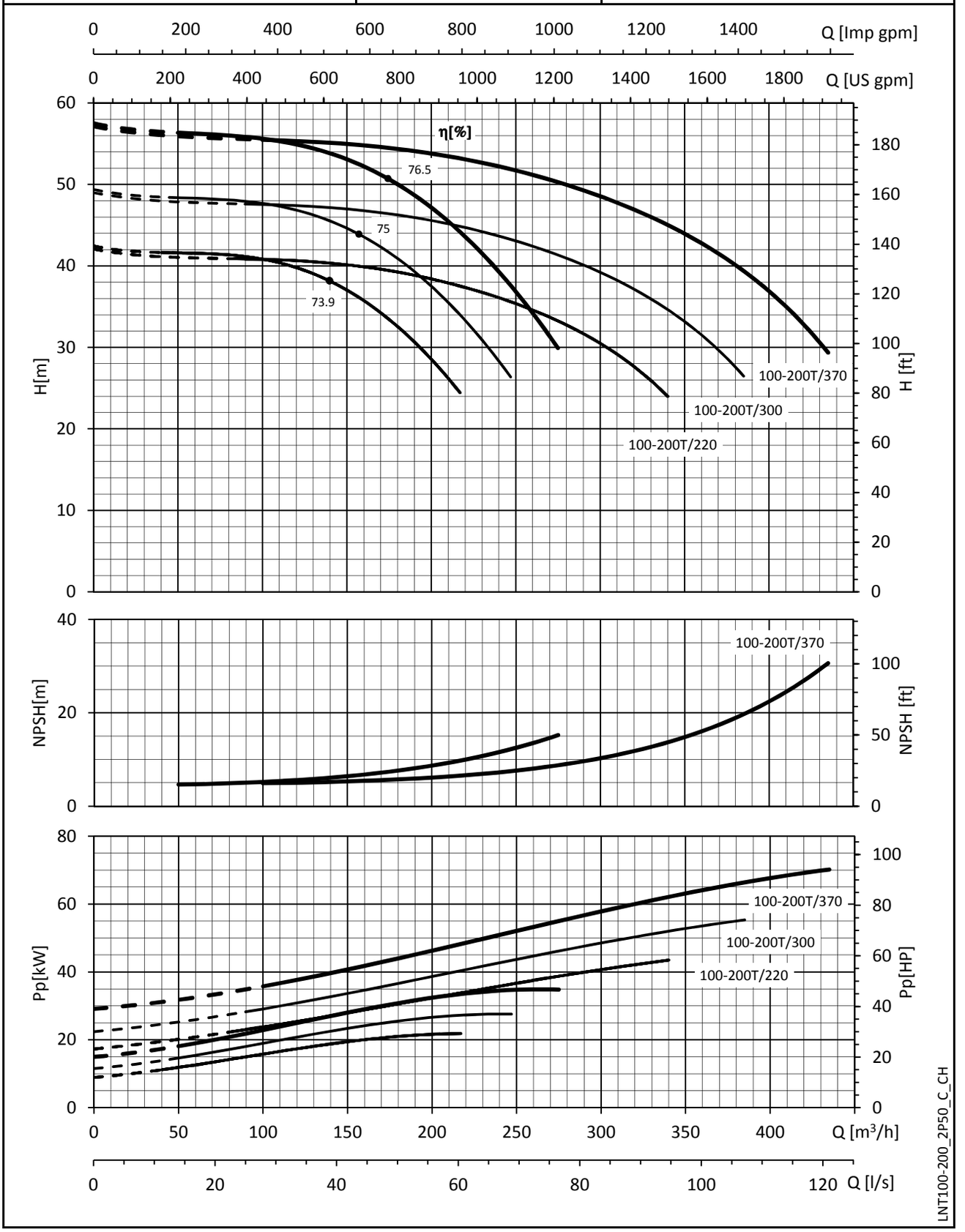


The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

LOWARA
a xylem brand

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

LNT 100-200	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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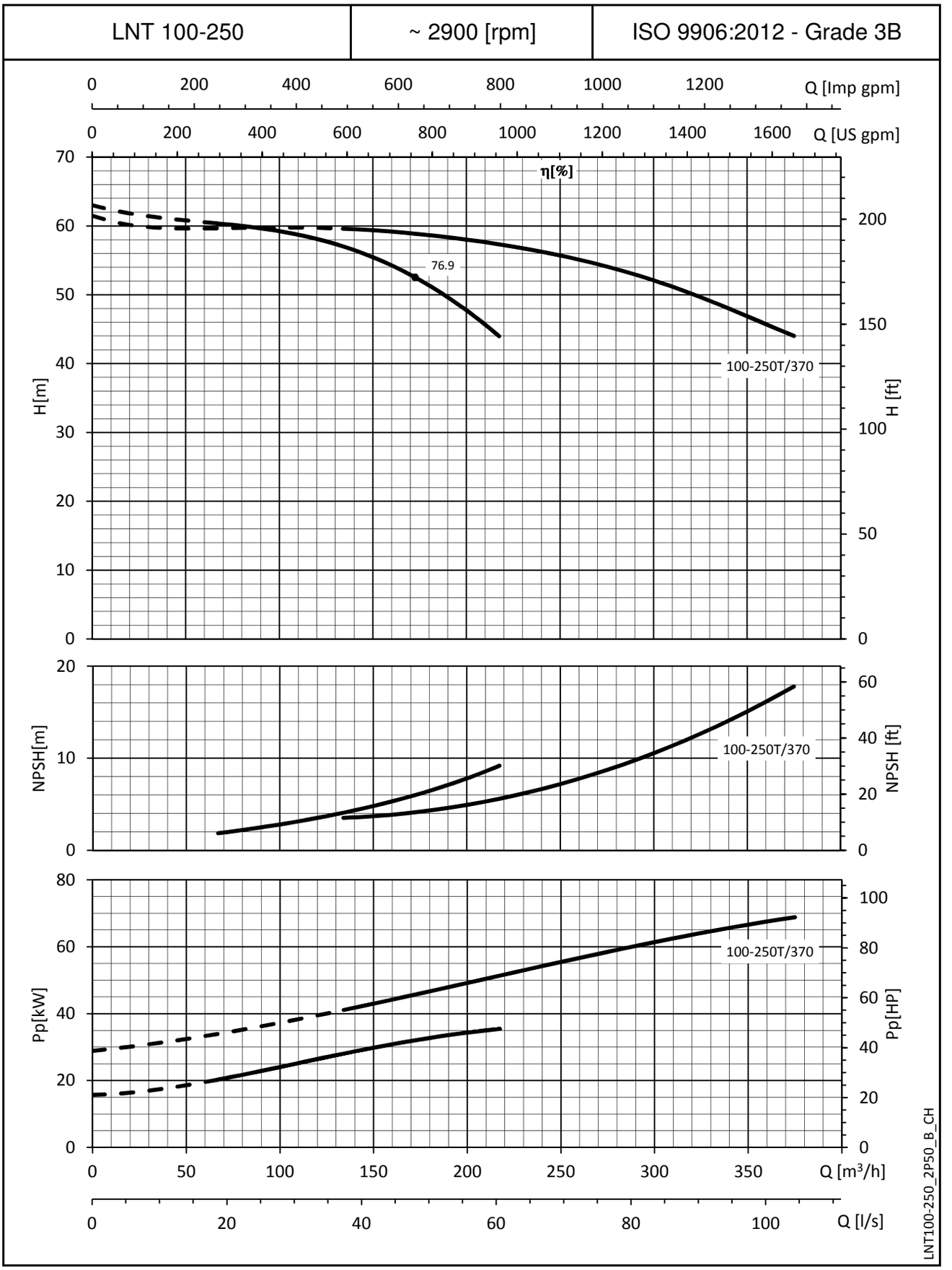
a xylem brand

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

LNT 100-250	~ 2900 [rpm]	ISO 9906:2012 - Grade 3B

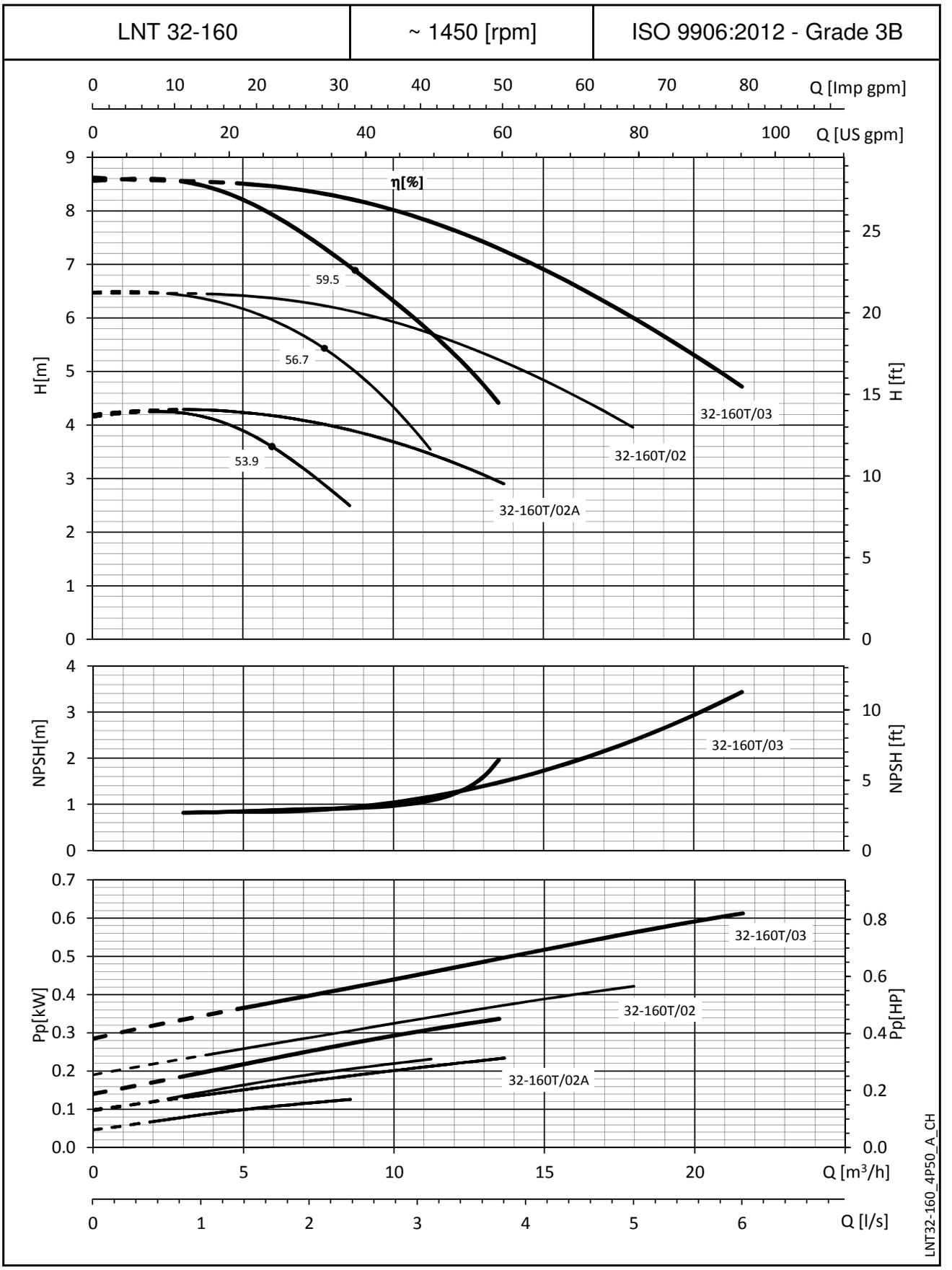


The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

LOWARA
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 32-160	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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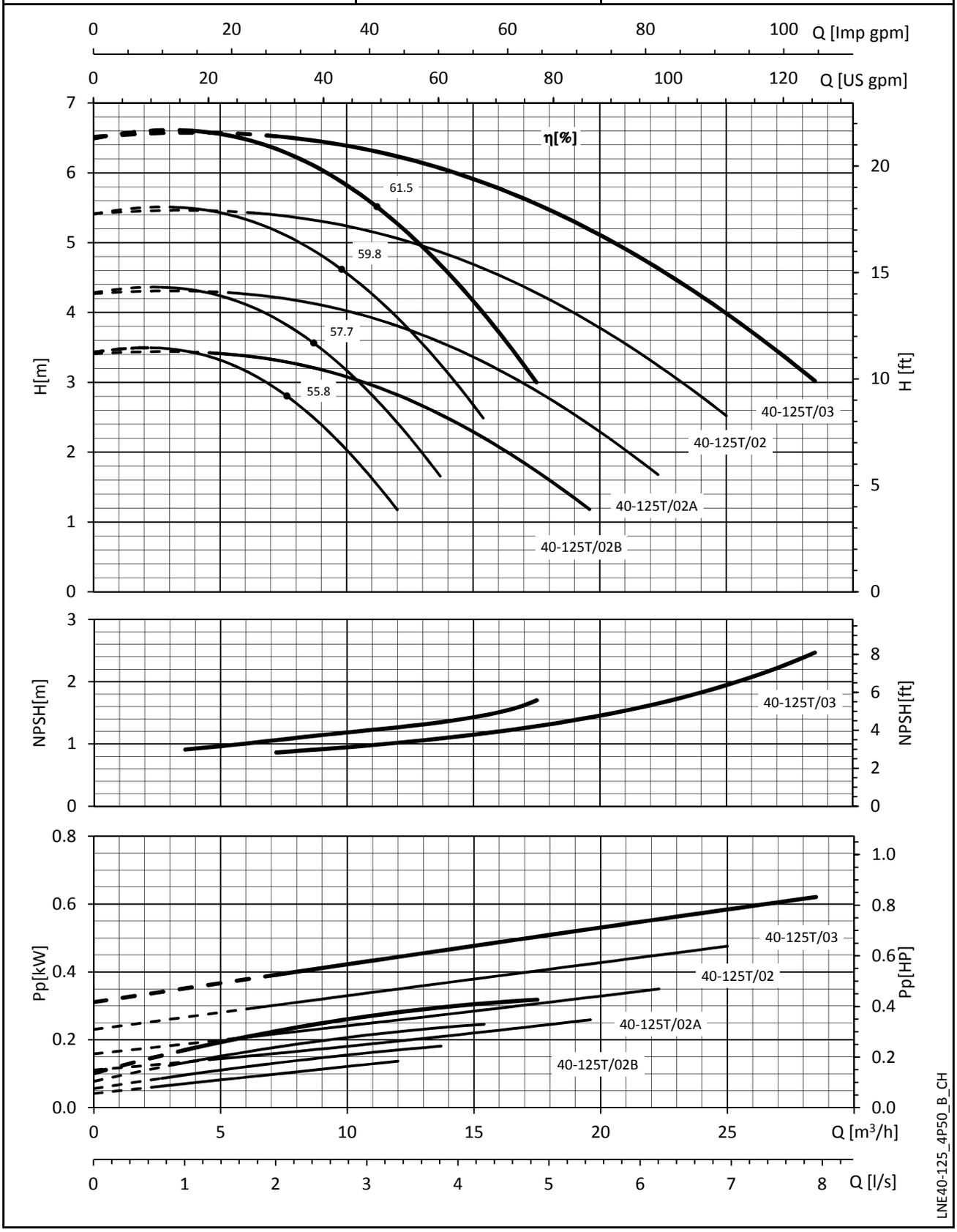
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 40-125	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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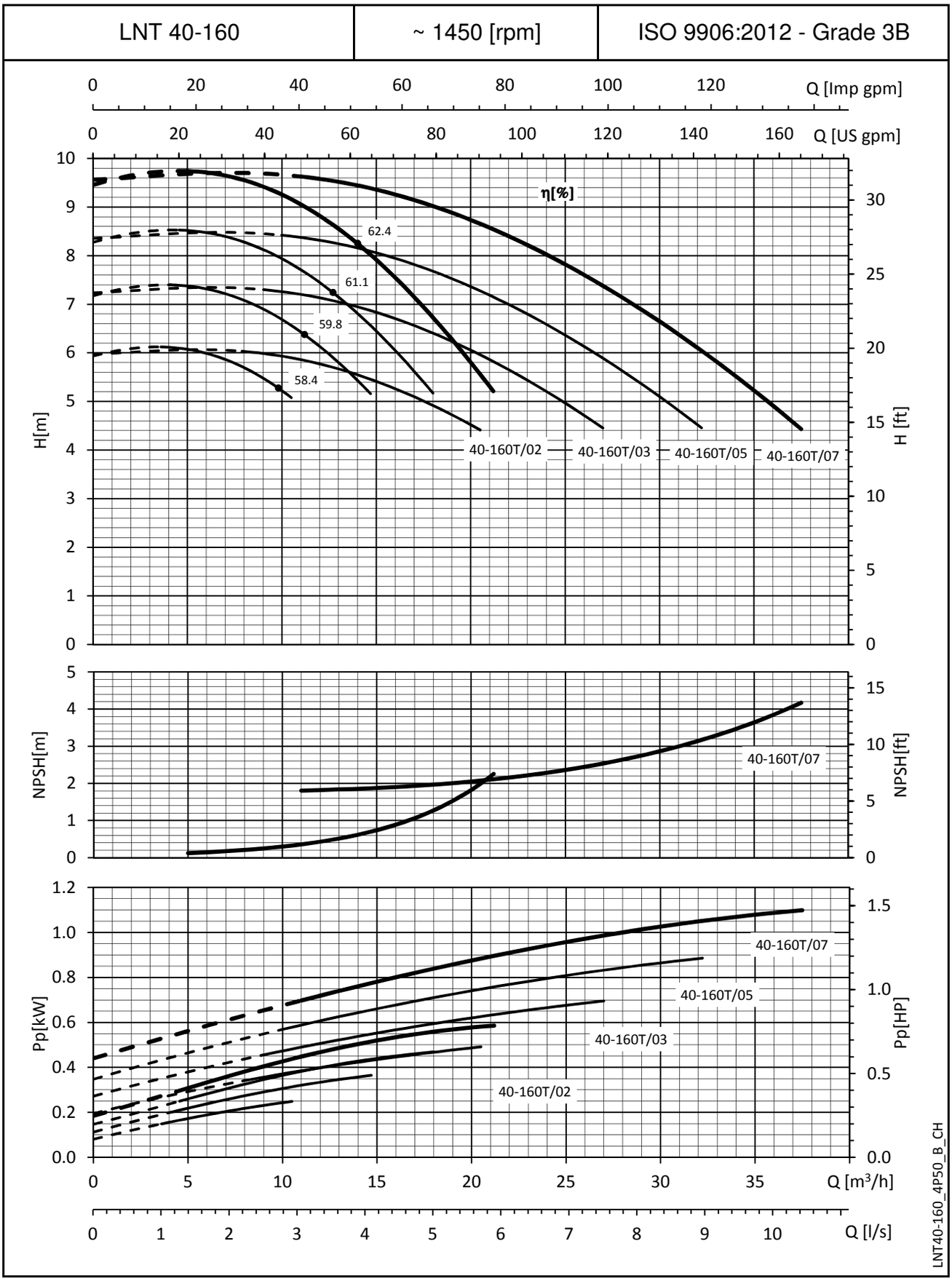
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 40-160	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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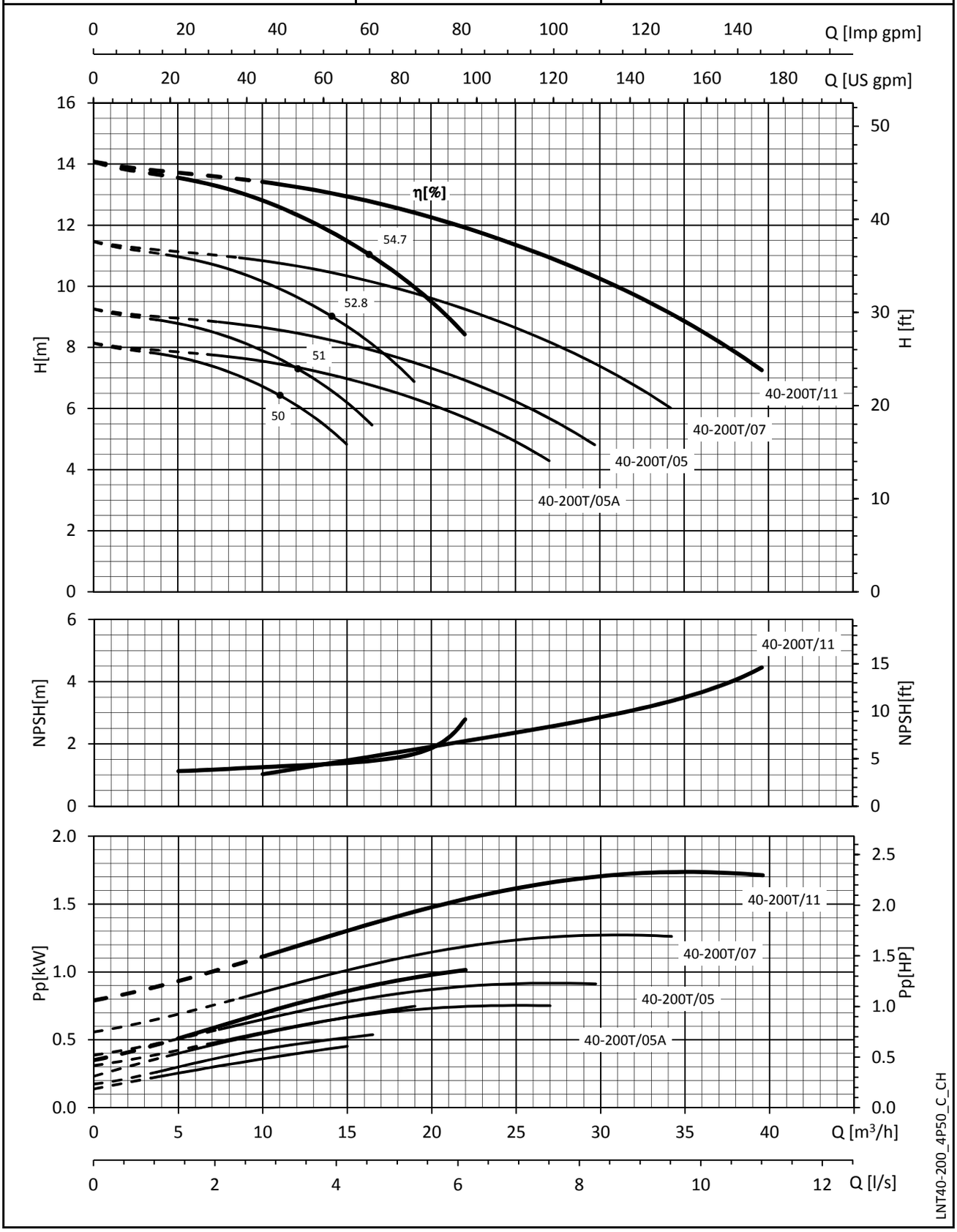
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 40-200	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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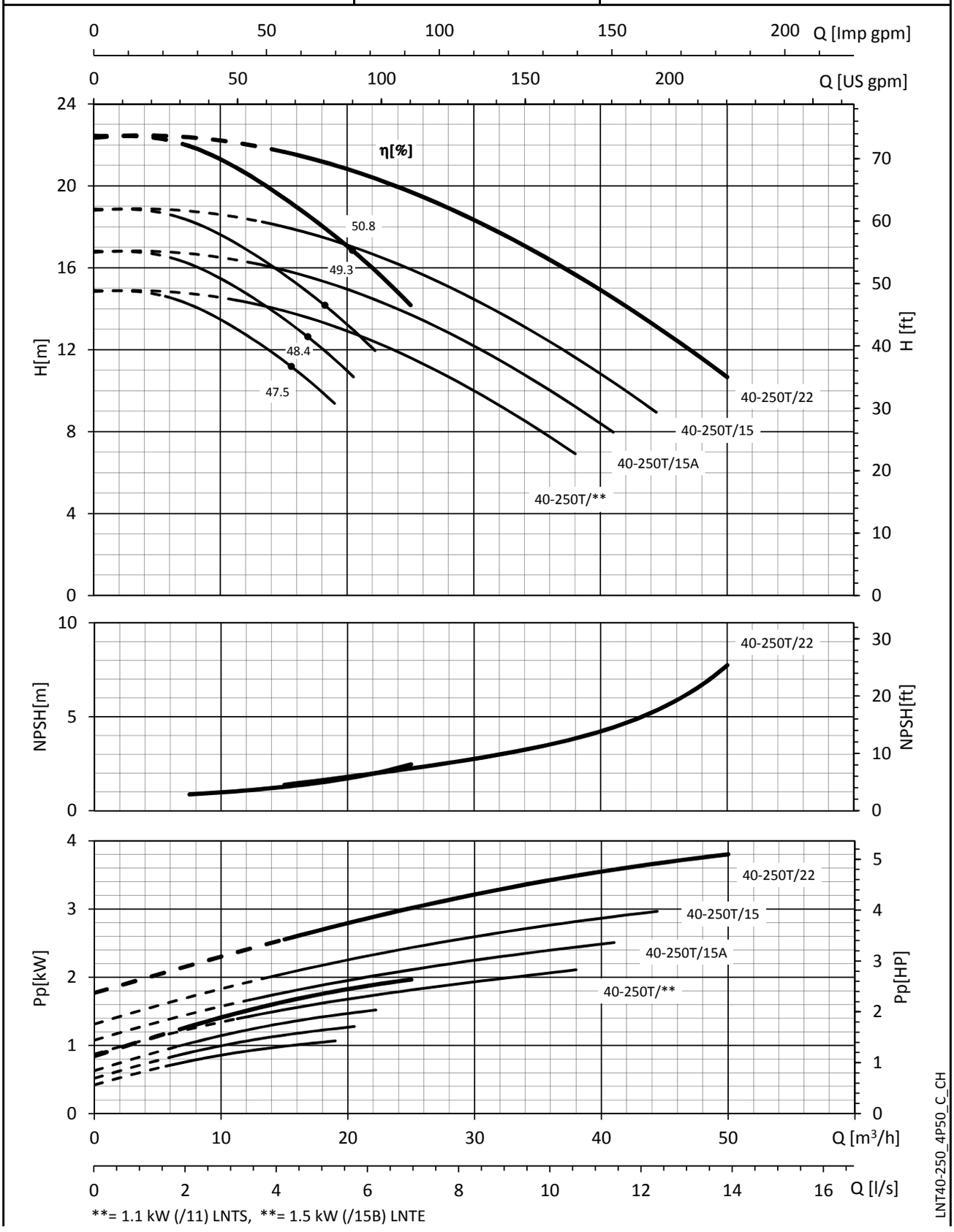
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 40-250	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



**= 1.1 kW (/11) LNTS, **= 1.5 kW (/15B) LNTE

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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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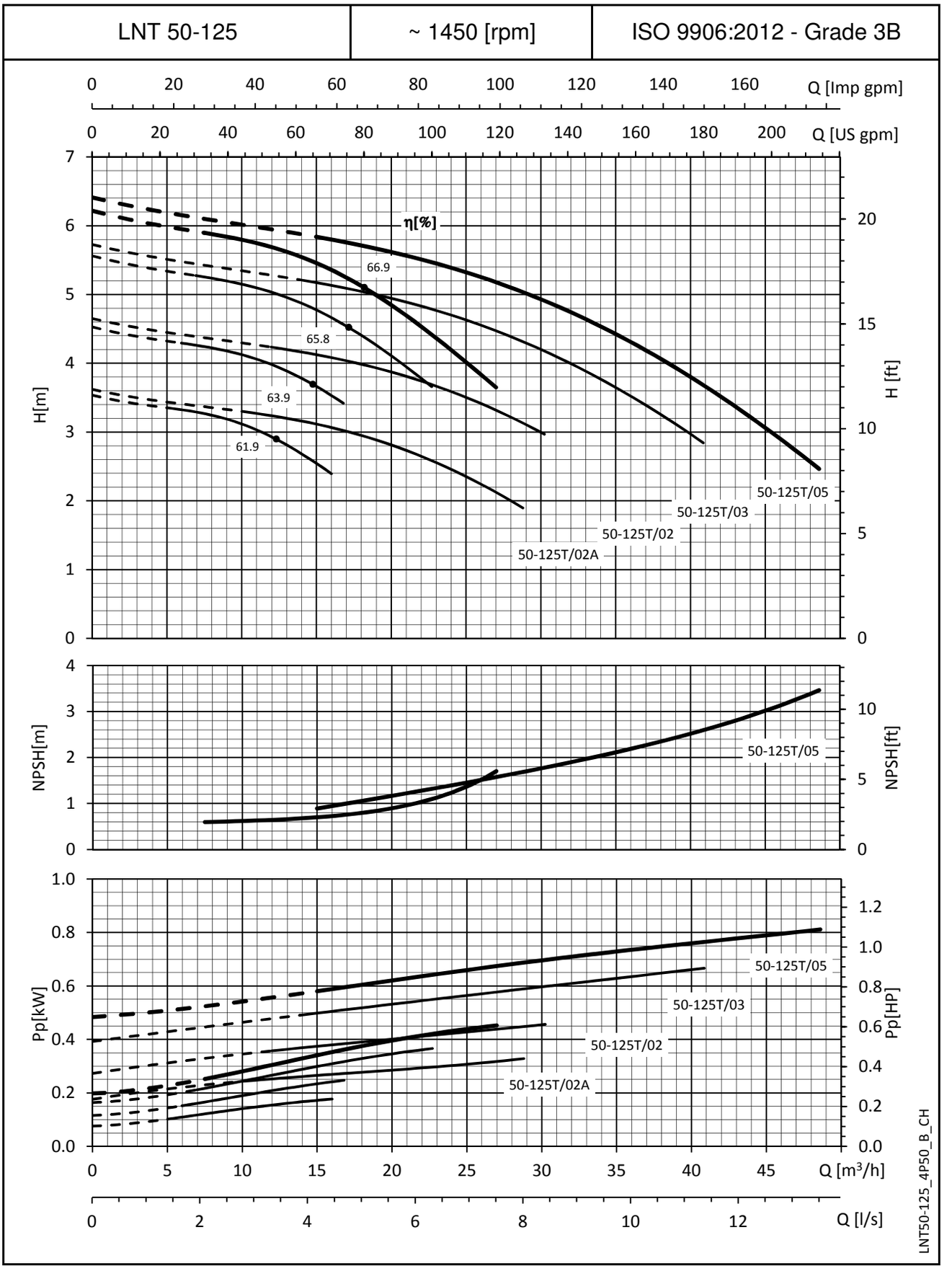
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 50-125	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B

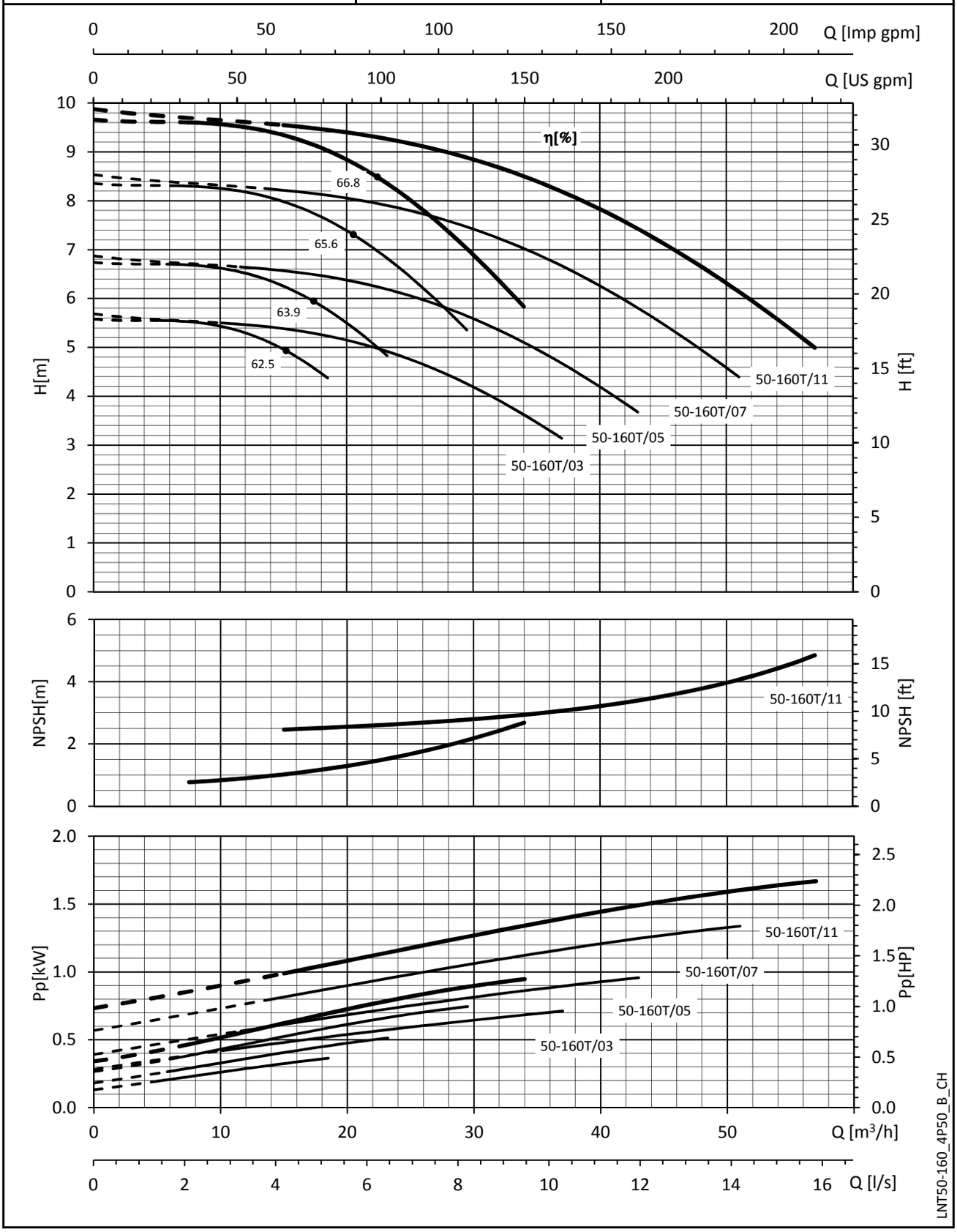


The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

LOWARA
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 50-160	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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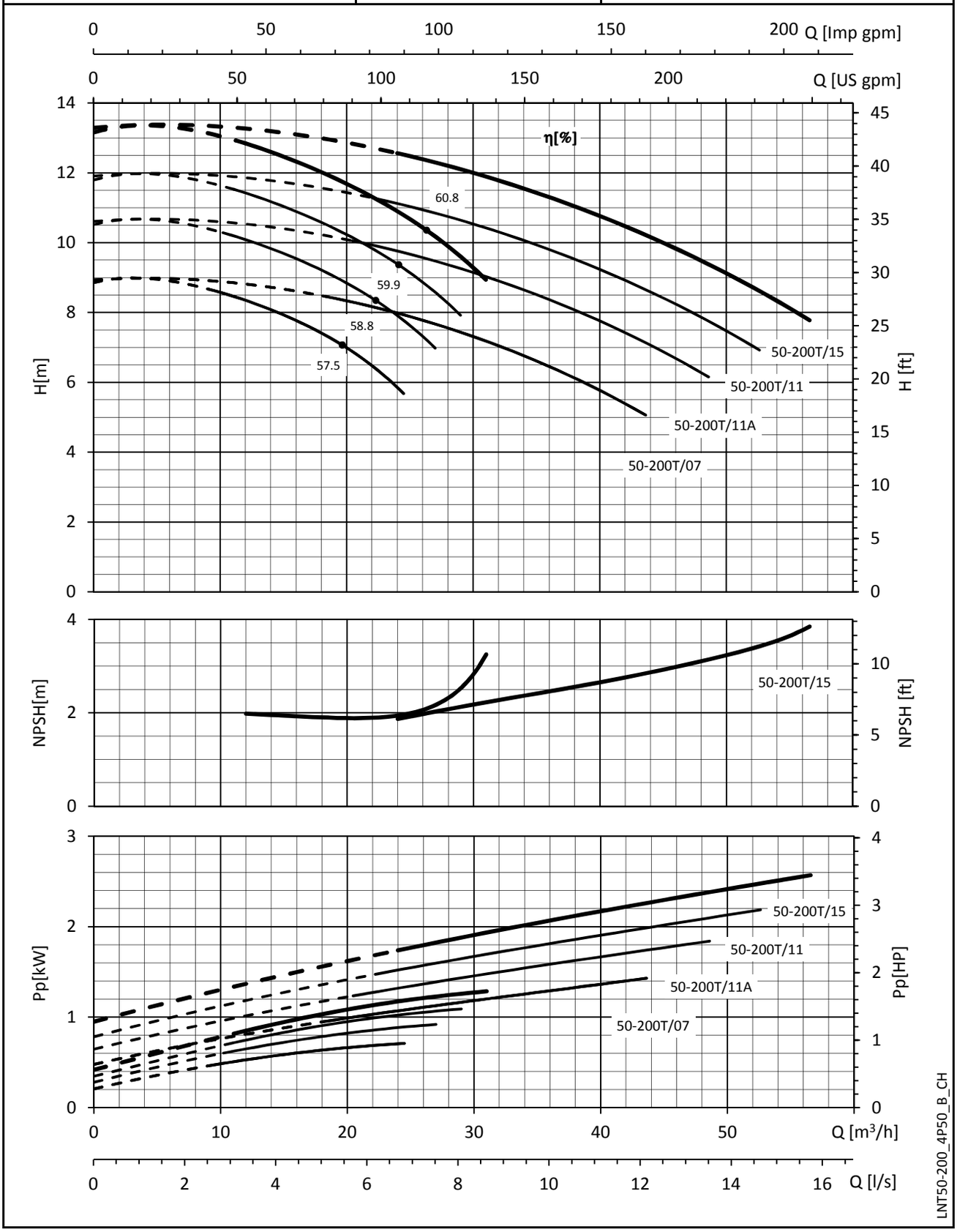
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 50-200	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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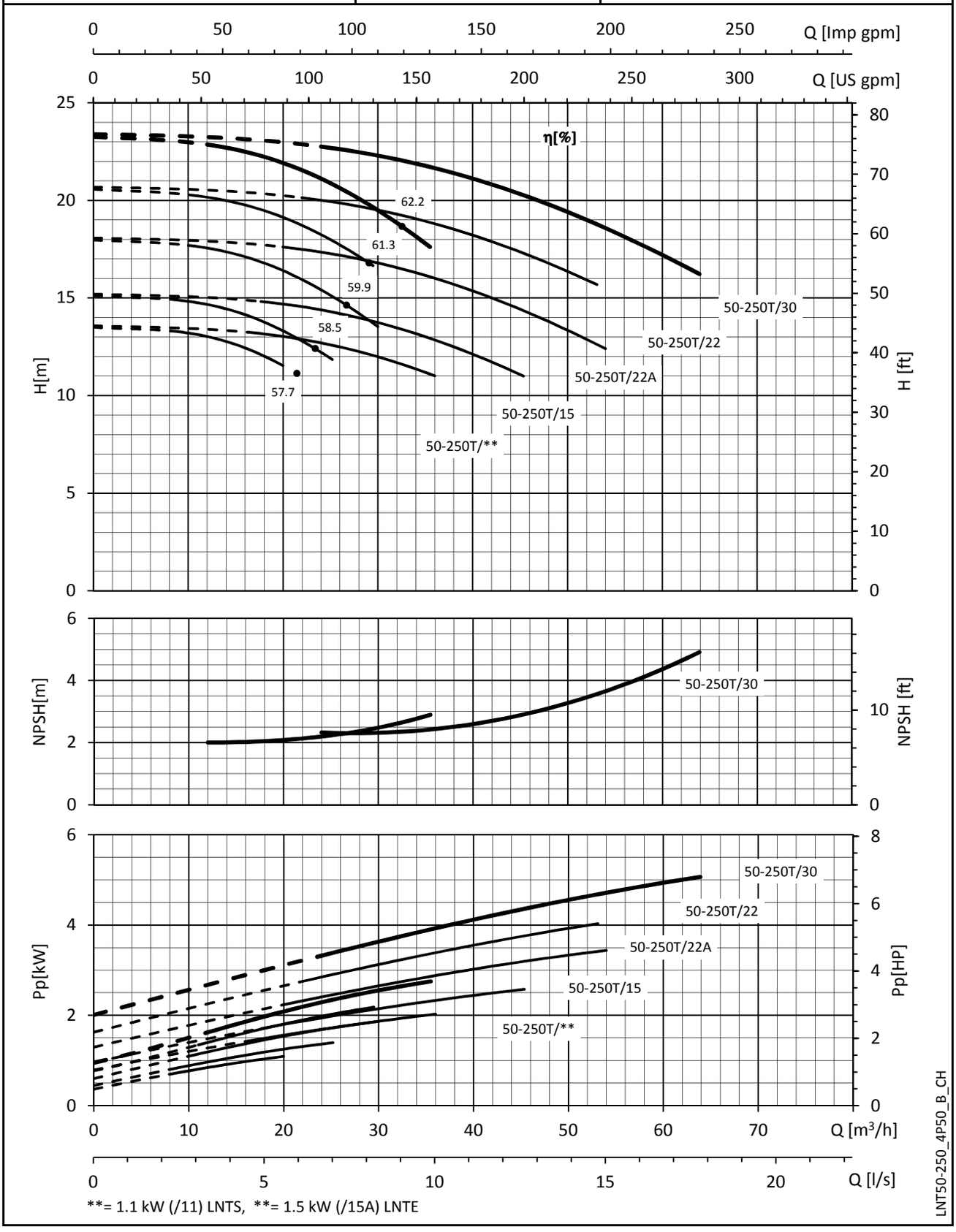
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 50-250	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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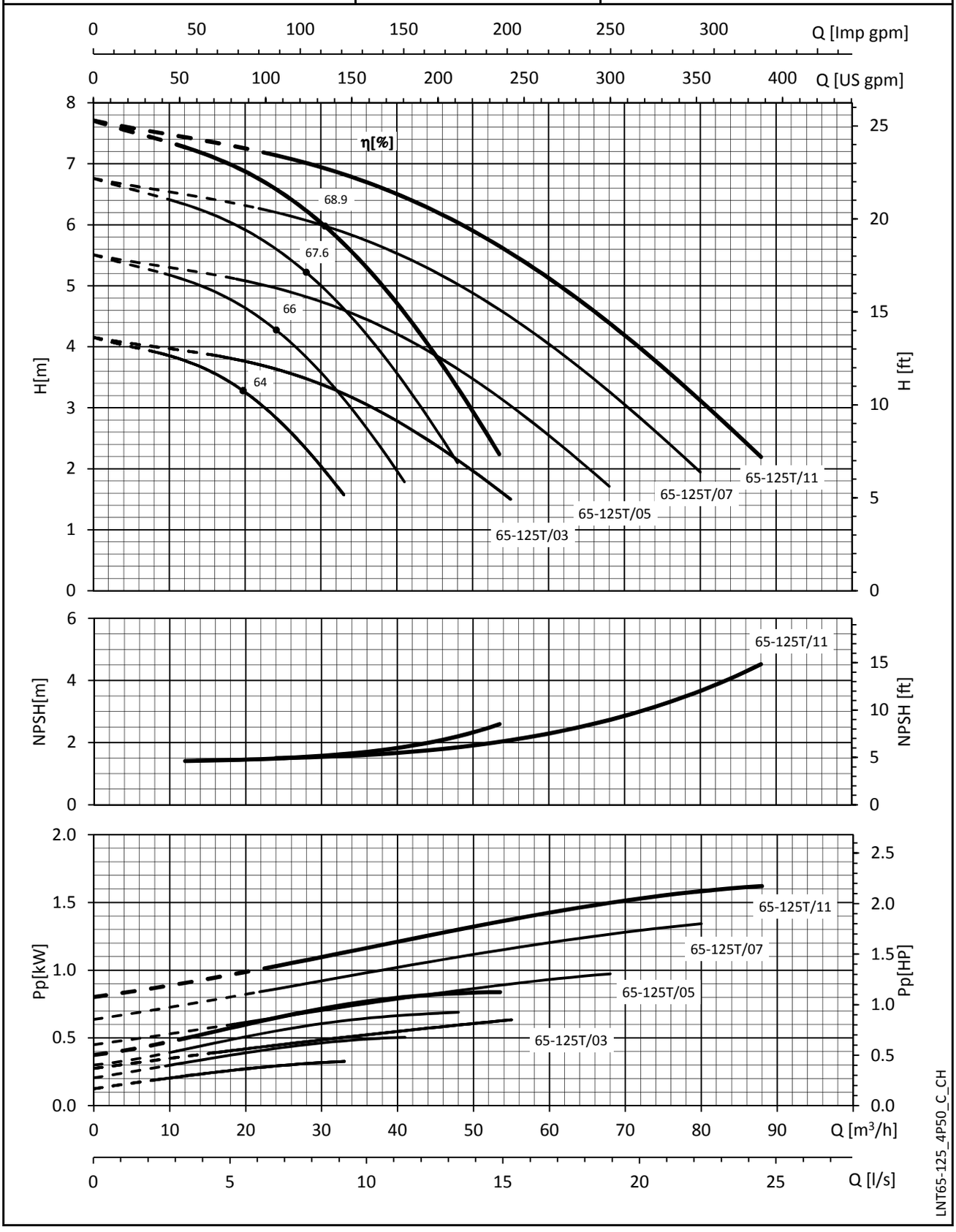
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 65-125	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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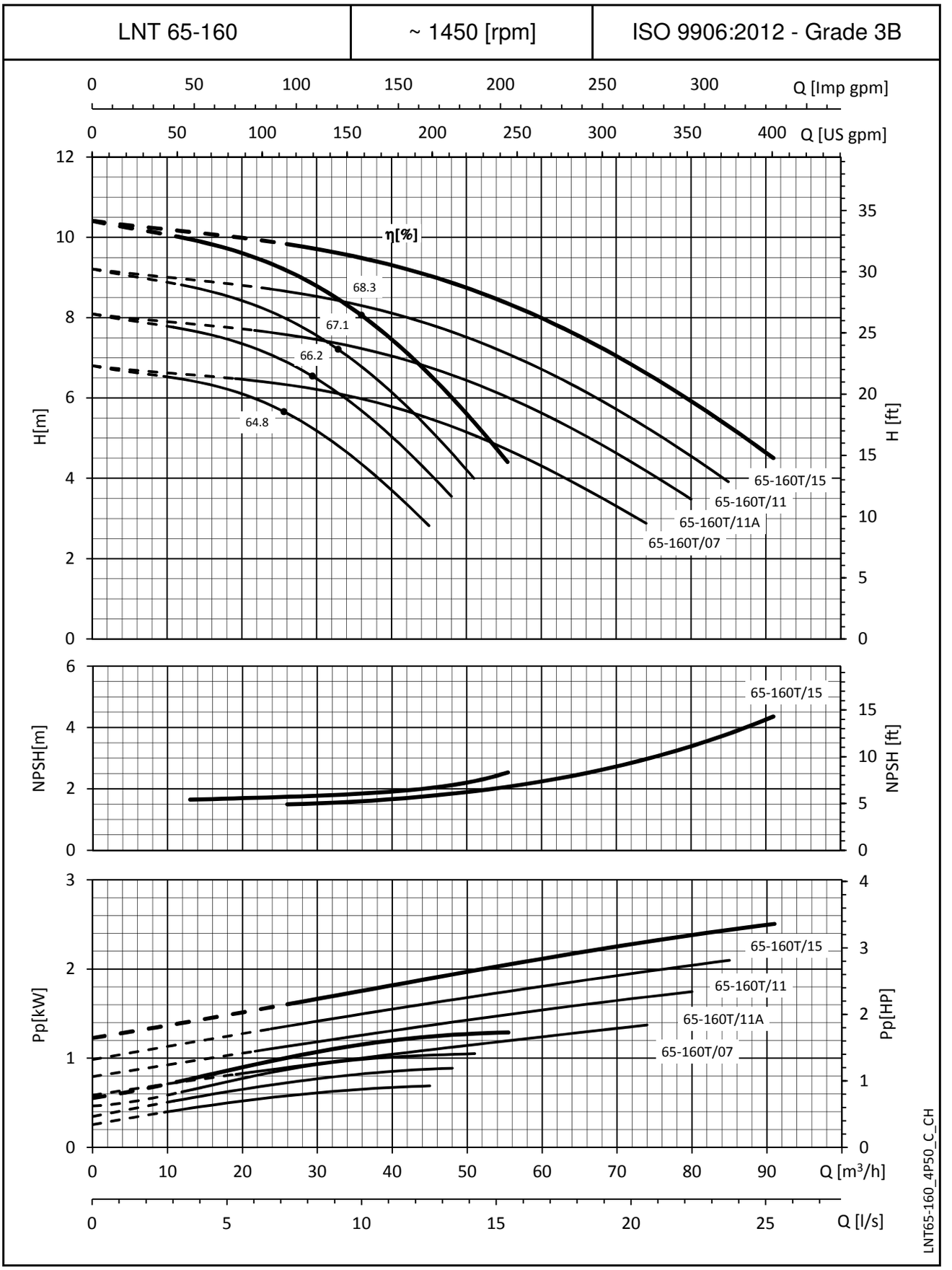
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 65-160	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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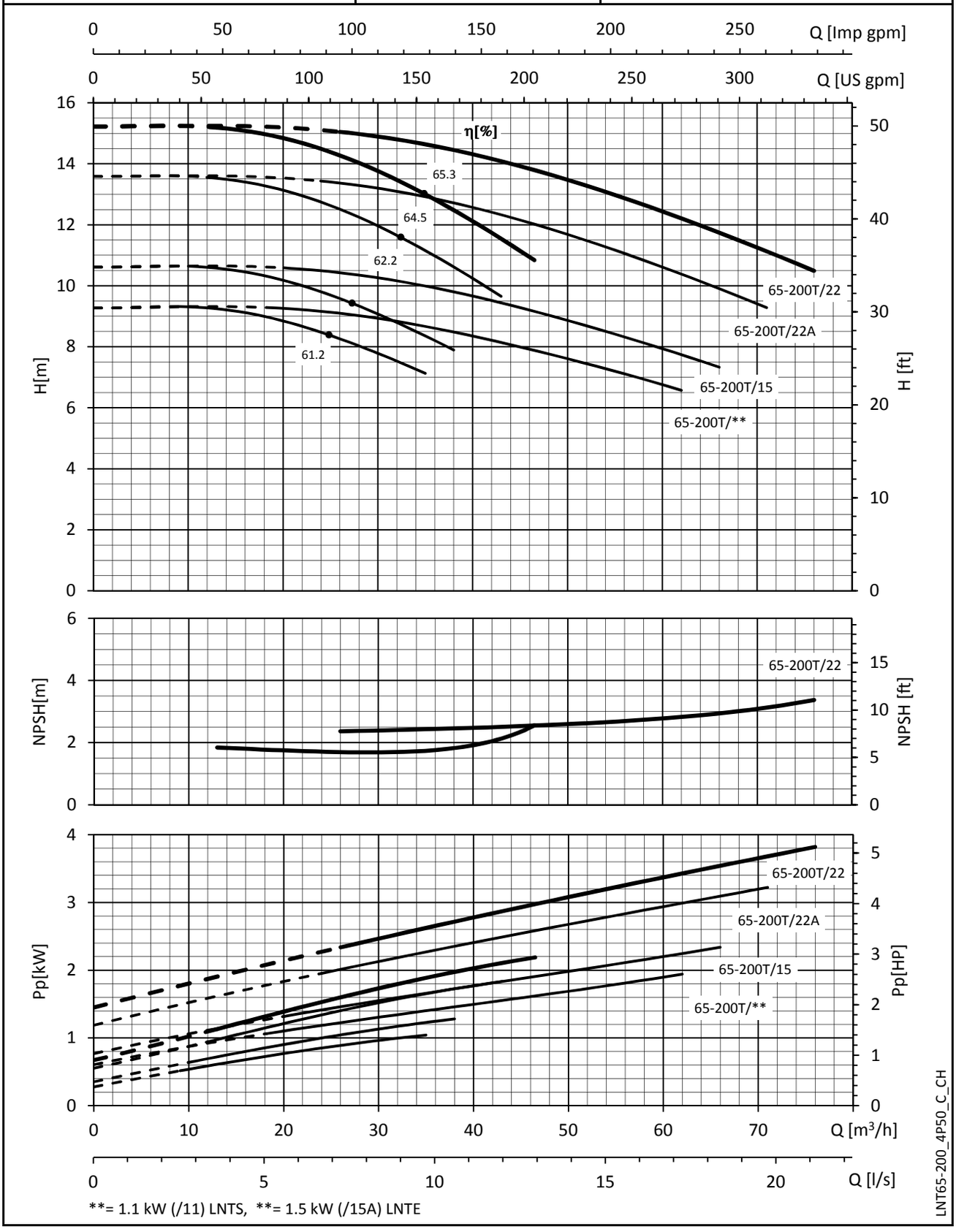
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 65-200	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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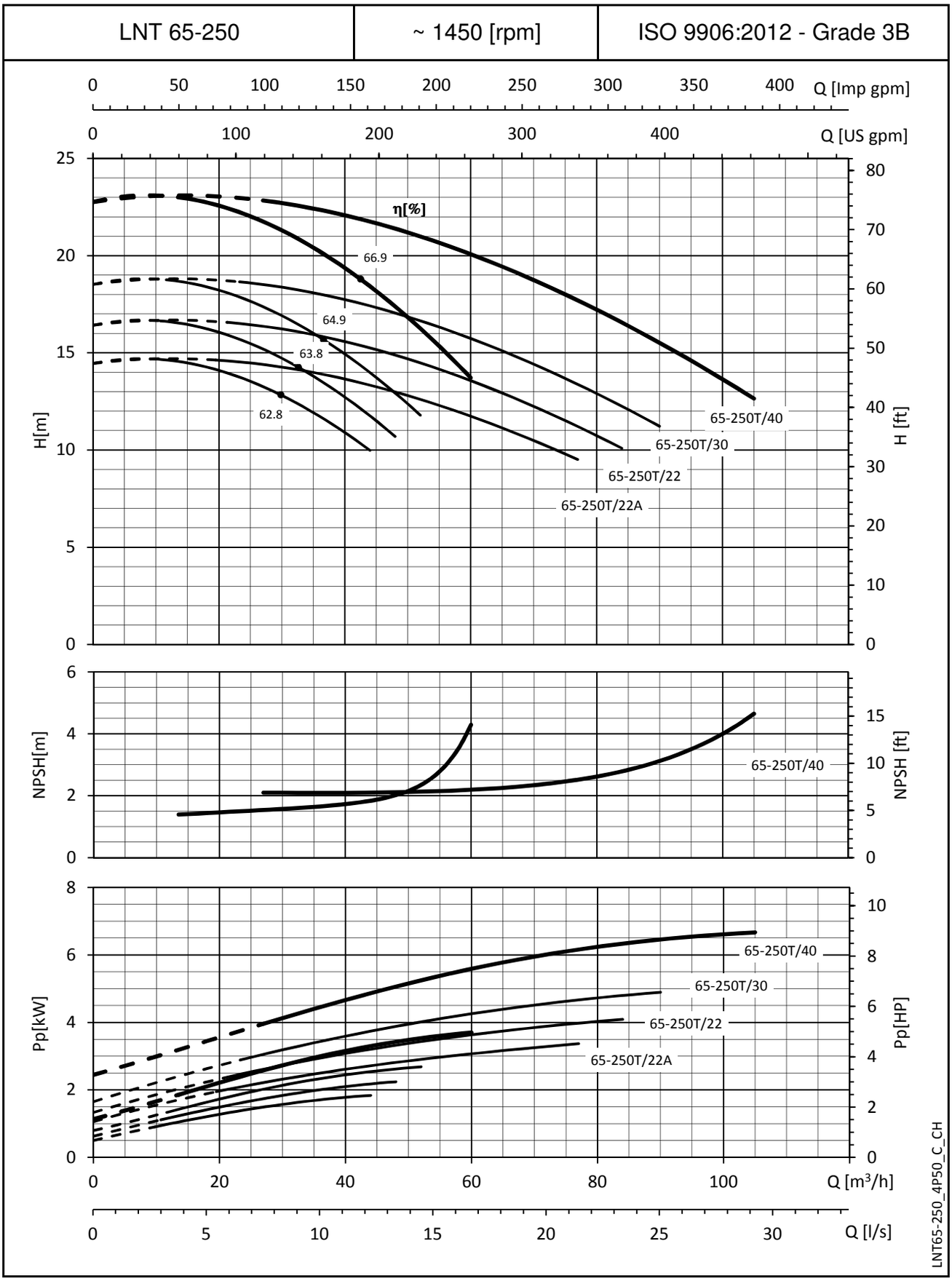
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 65-250	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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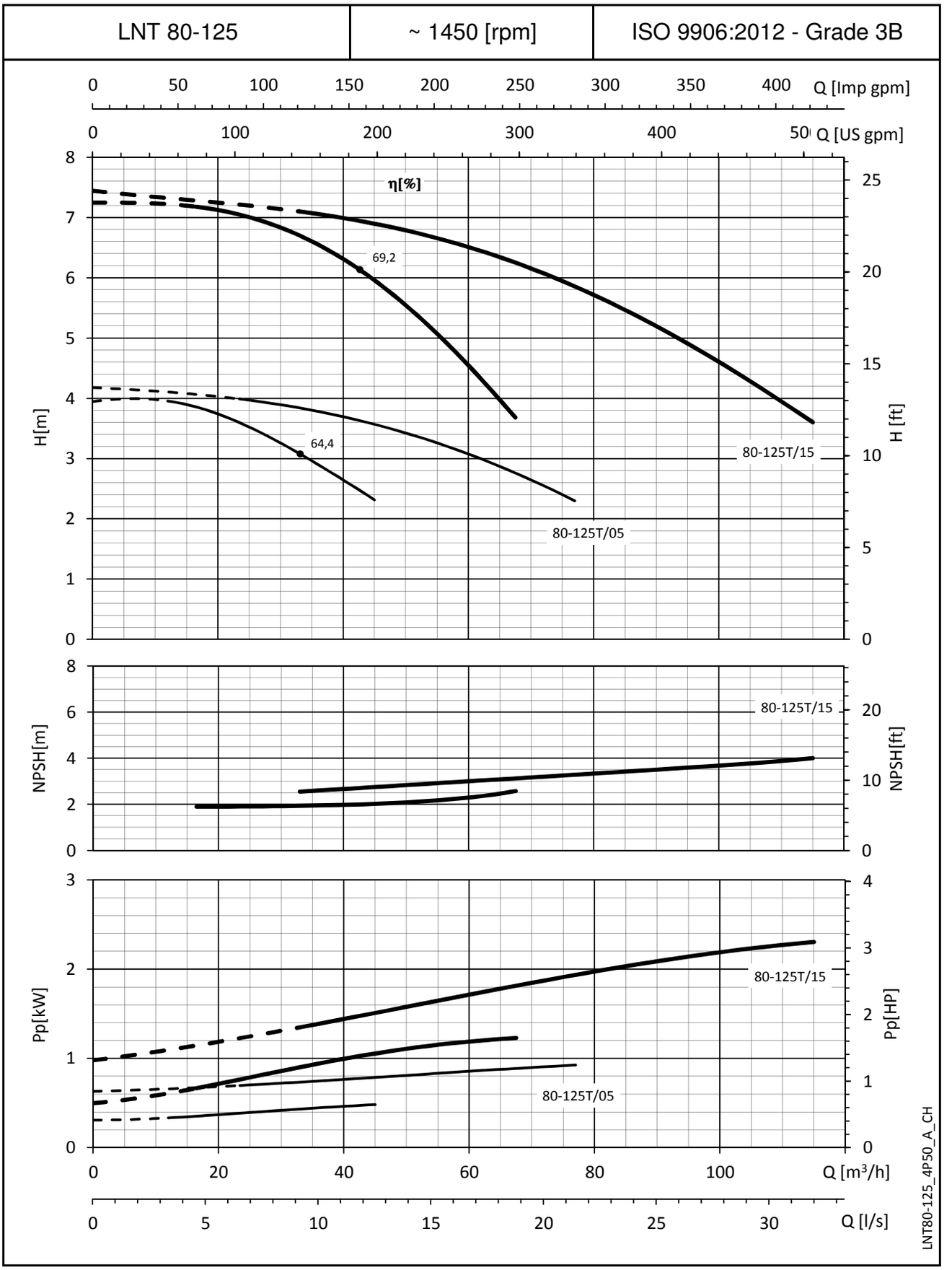
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 80-125	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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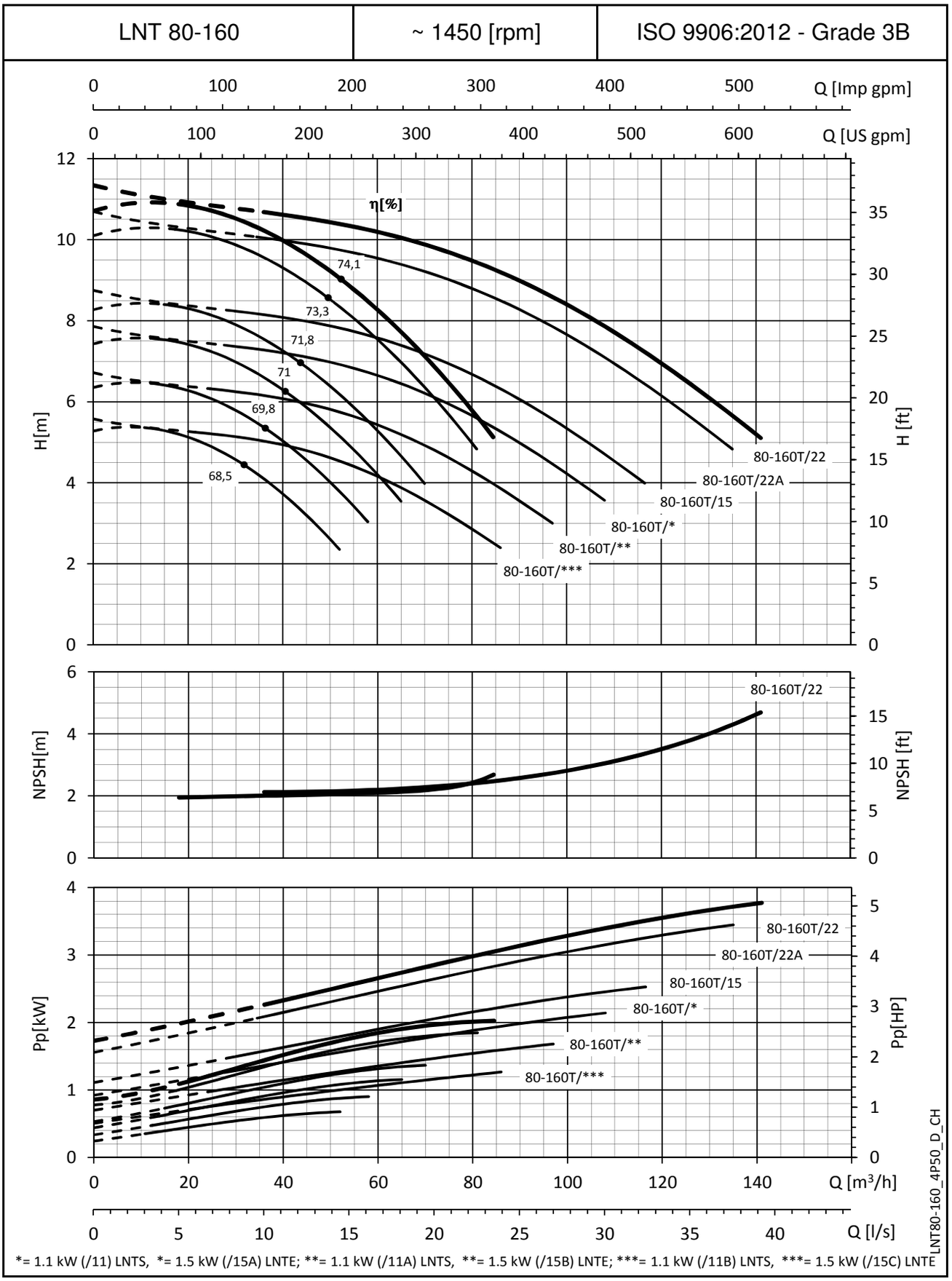
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 80-160	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



*= 1.1 kW (/11) LNTS, *= 1.5 kW (/15A) LNTE; **= 1.1 kW (/11A) LNTS, **= 1.5 kW (/15B) LNTE; ***= 1.1 kW (/11B) LNTS, ***= 1.5 kW (/15C) LNTE

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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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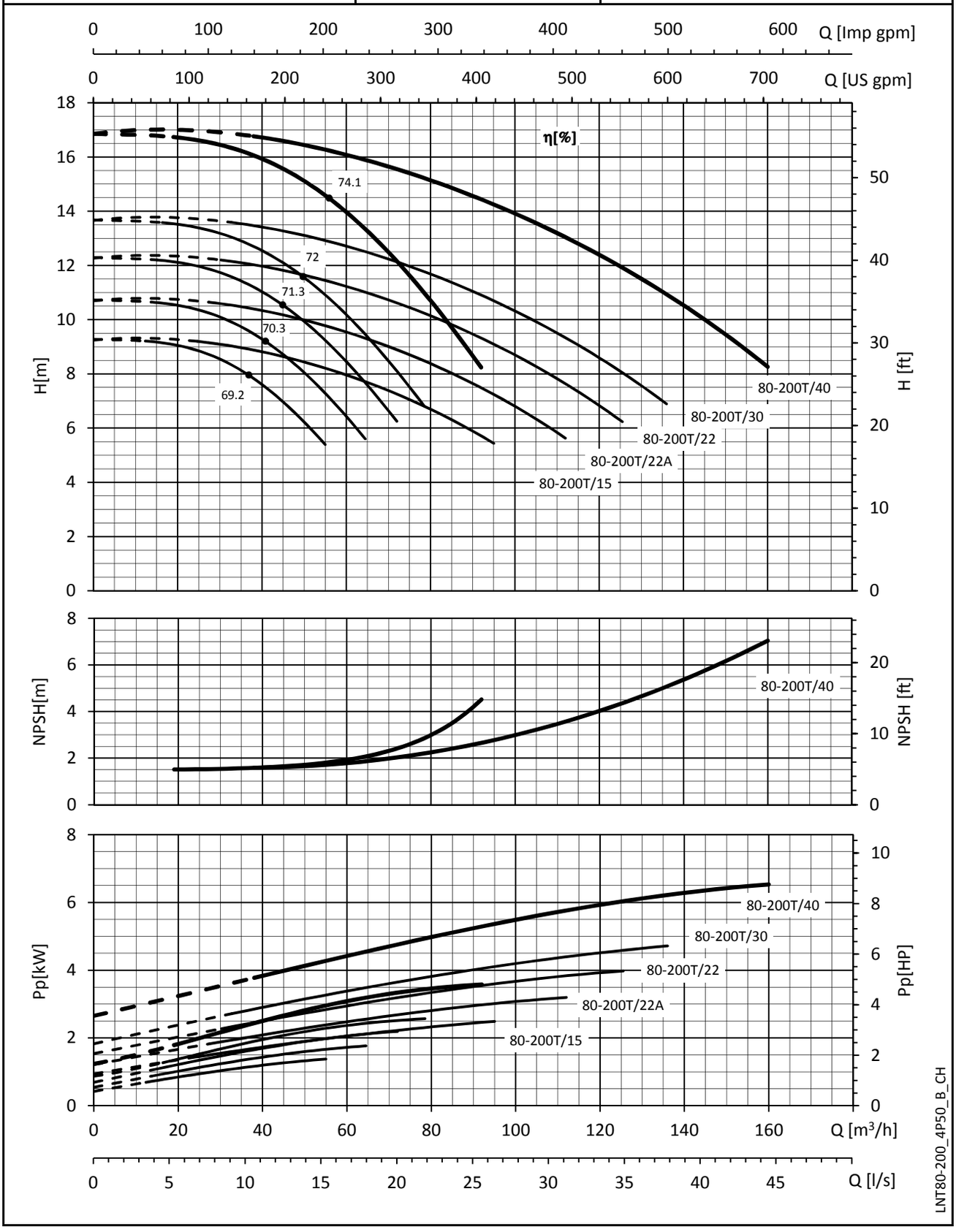
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 80-200	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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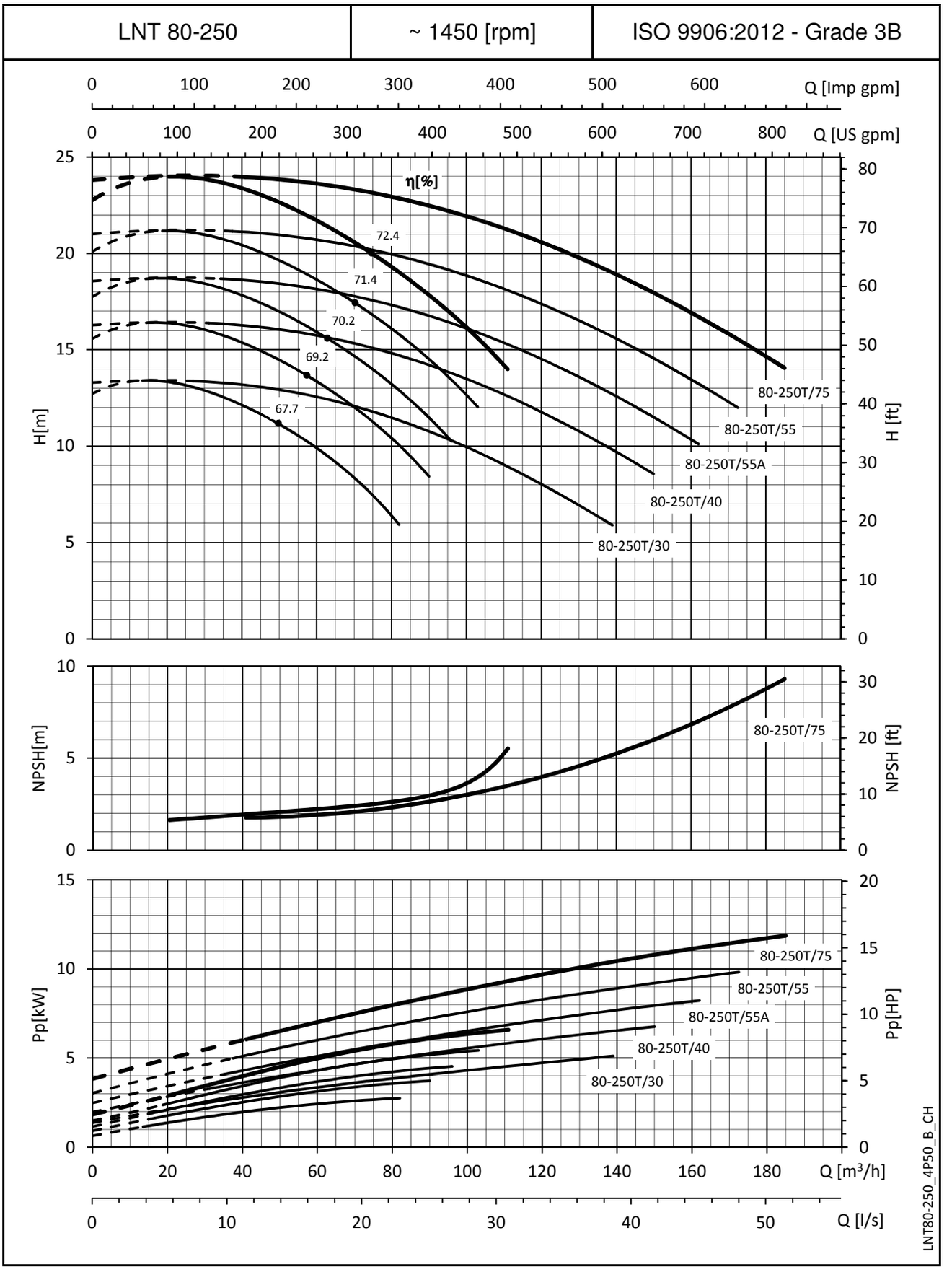
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 80-250	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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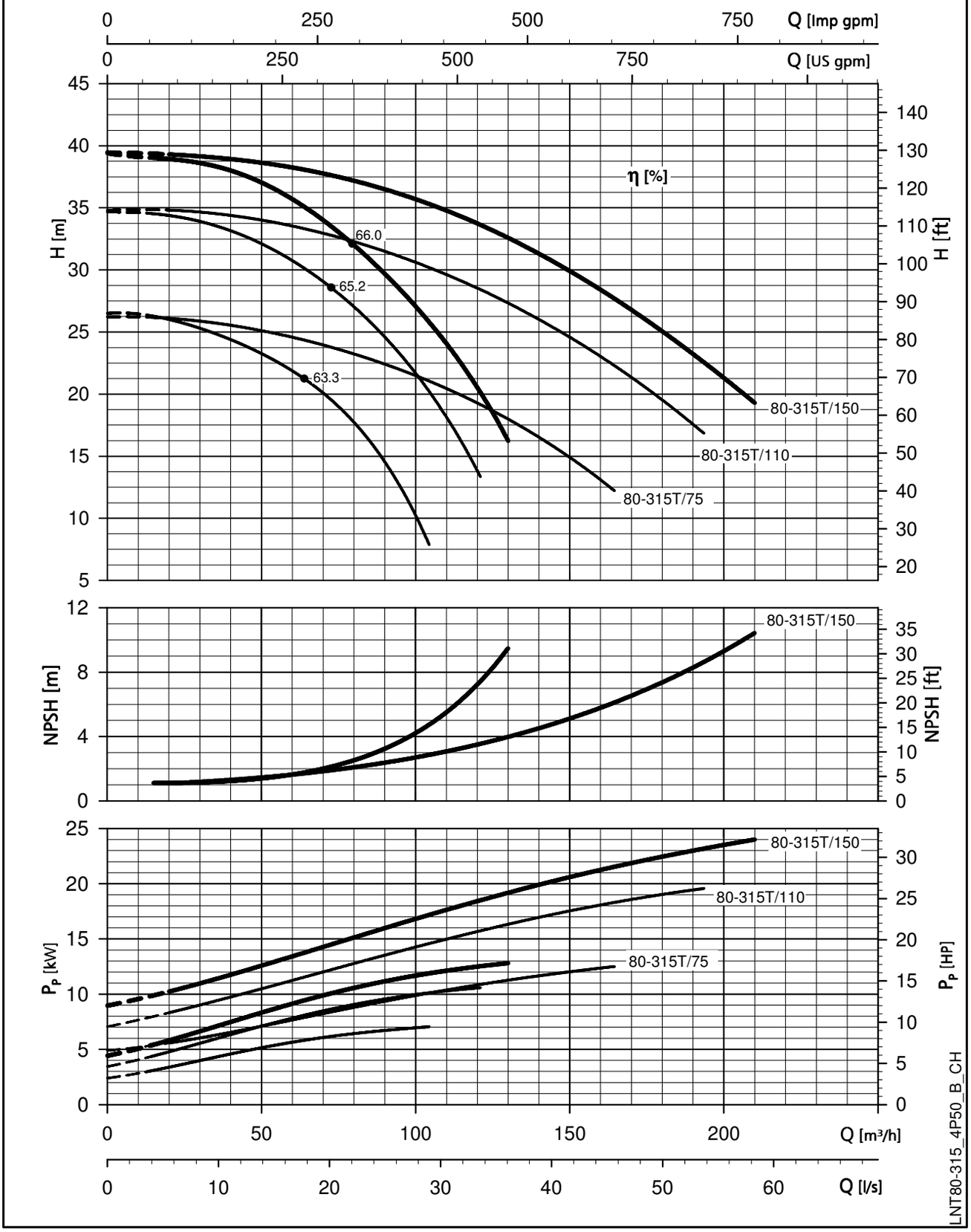
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 80-315	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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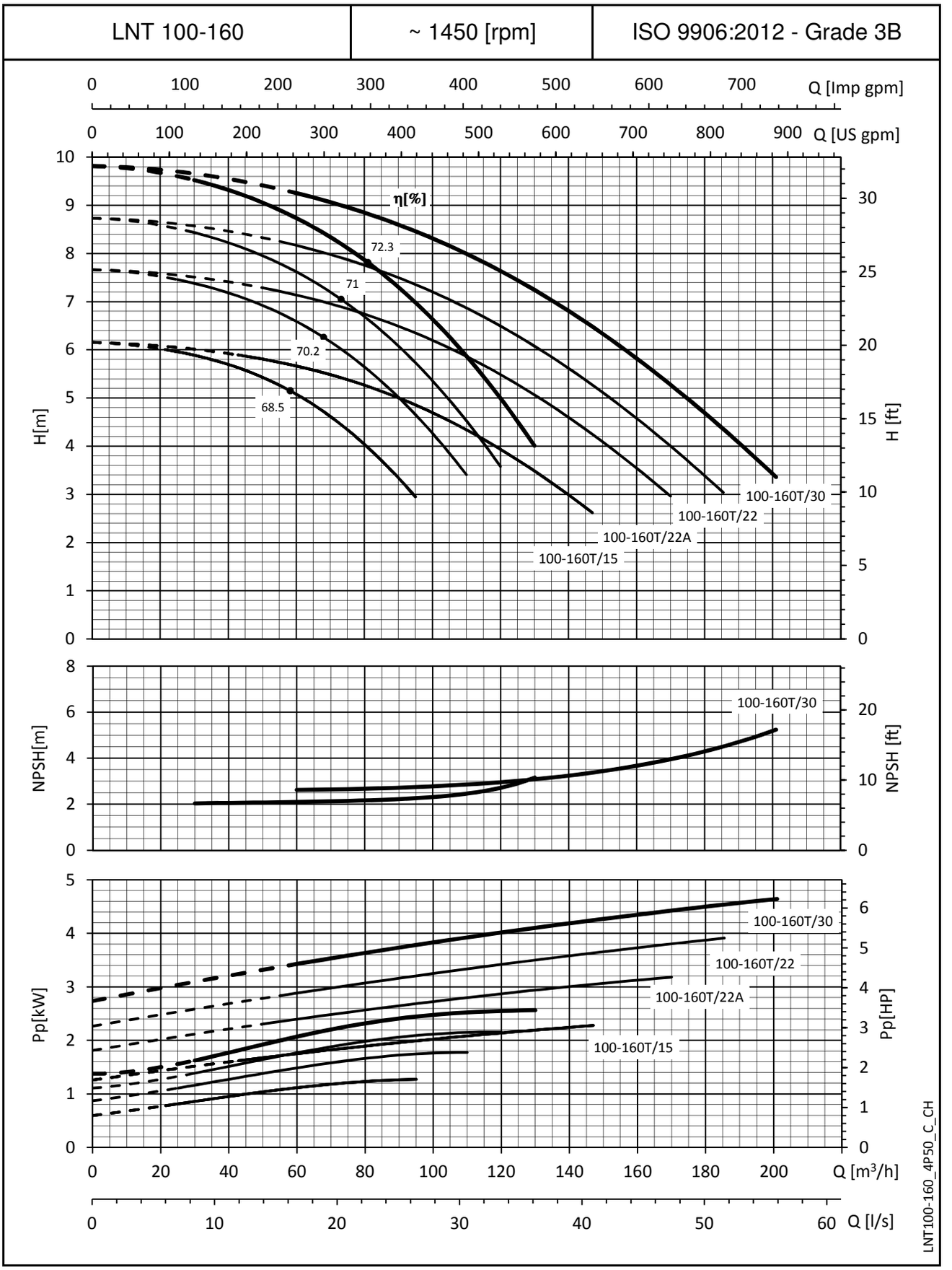
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 100-160	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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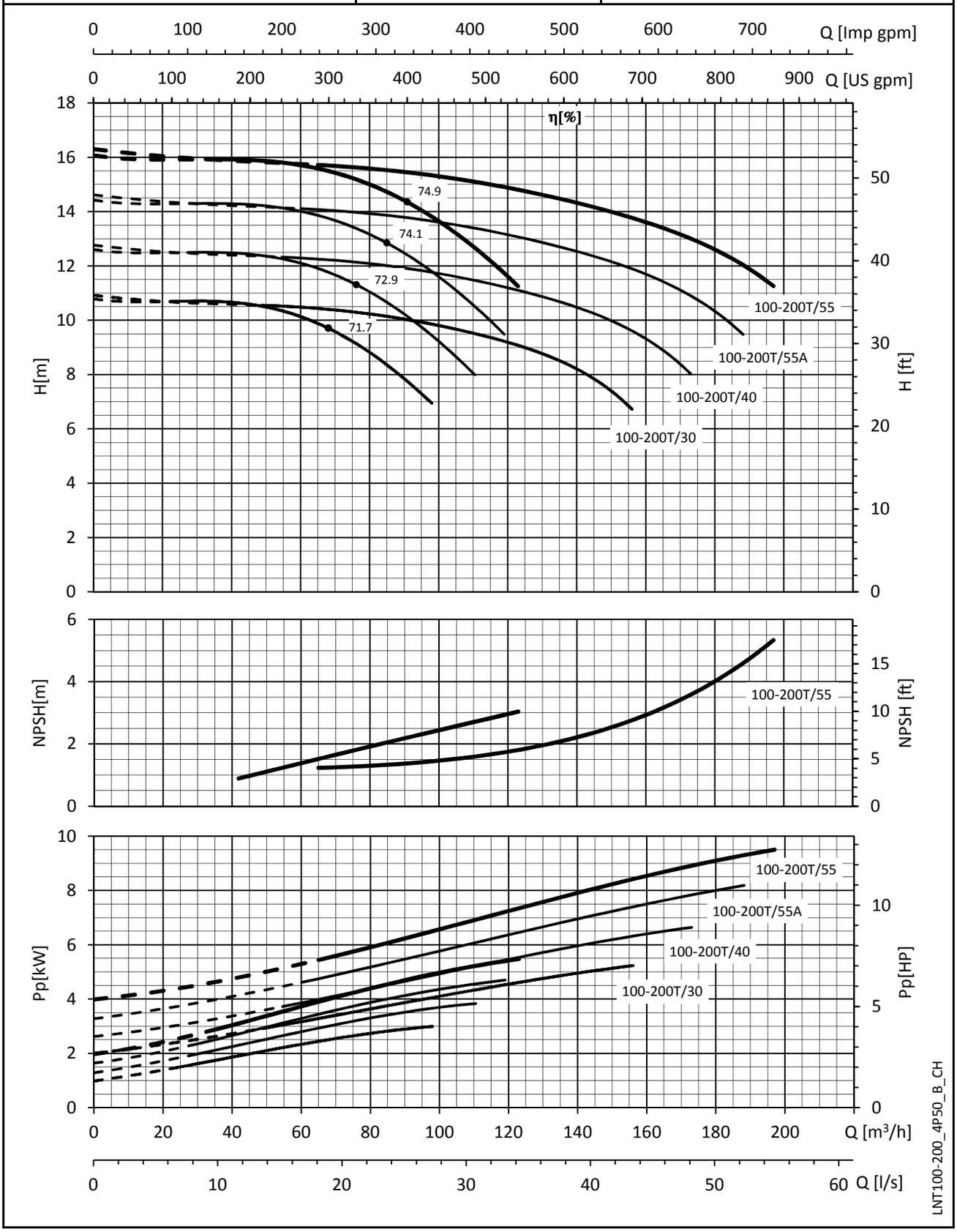
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 100-200	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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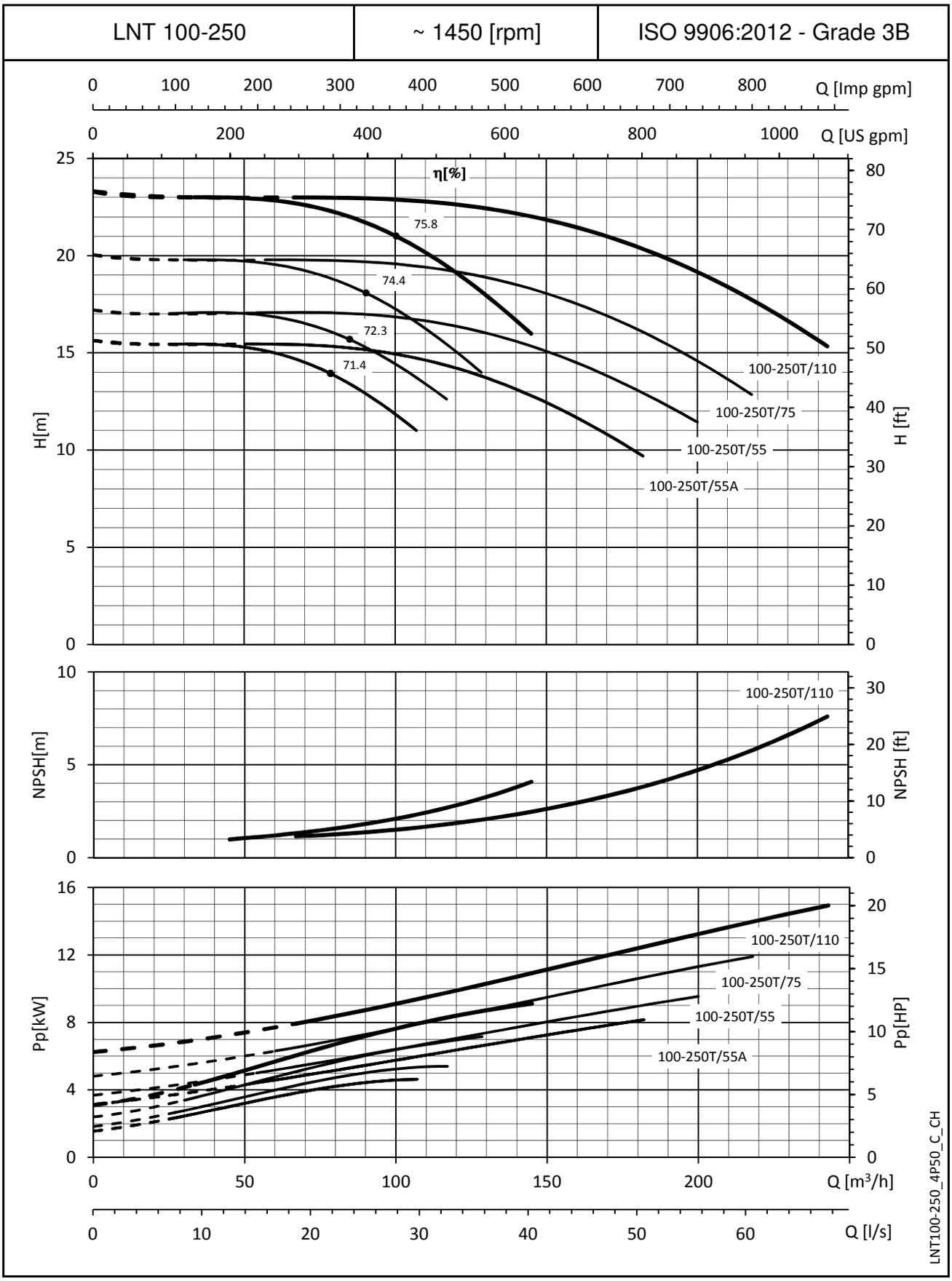
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 100-250	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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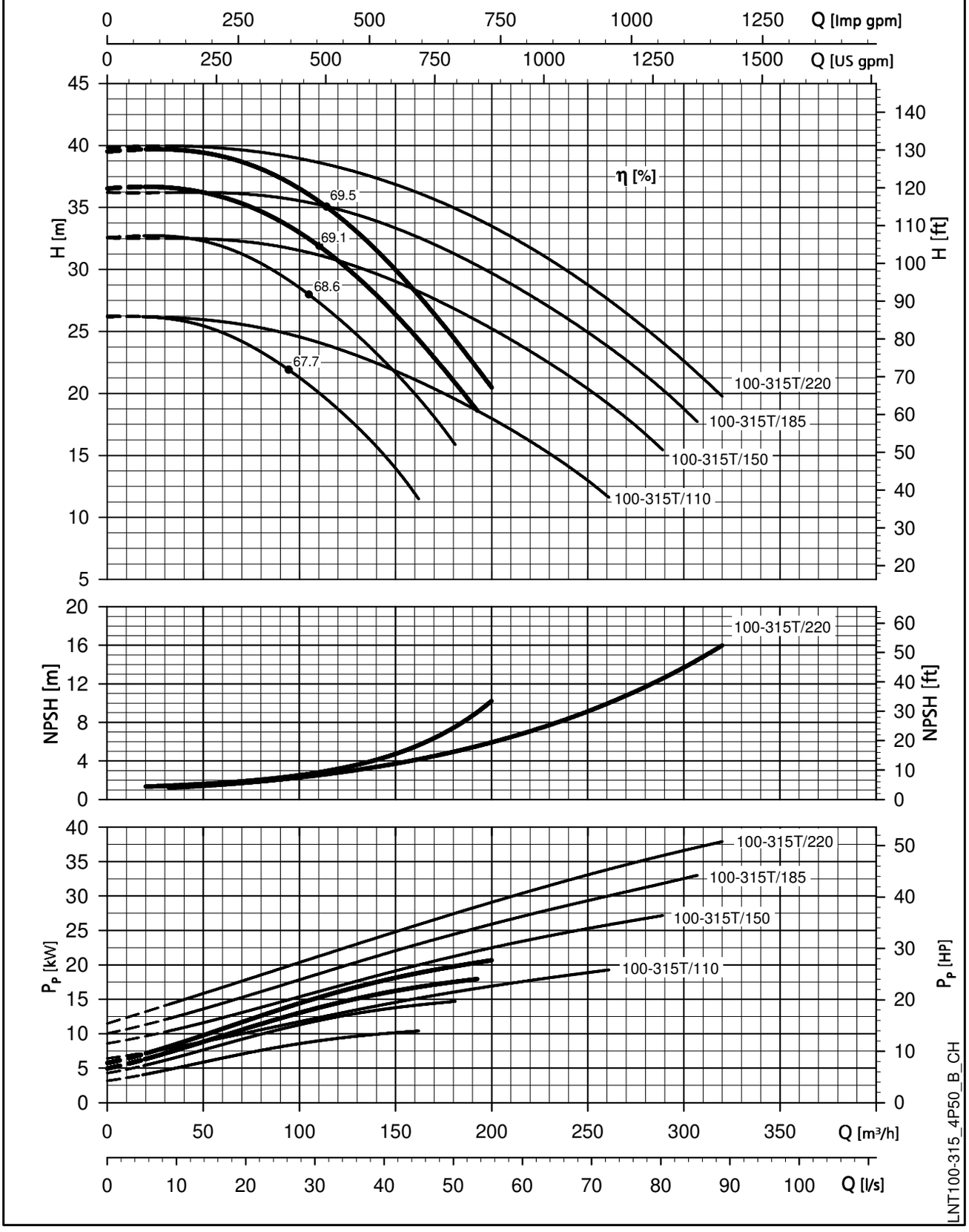
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 100-315	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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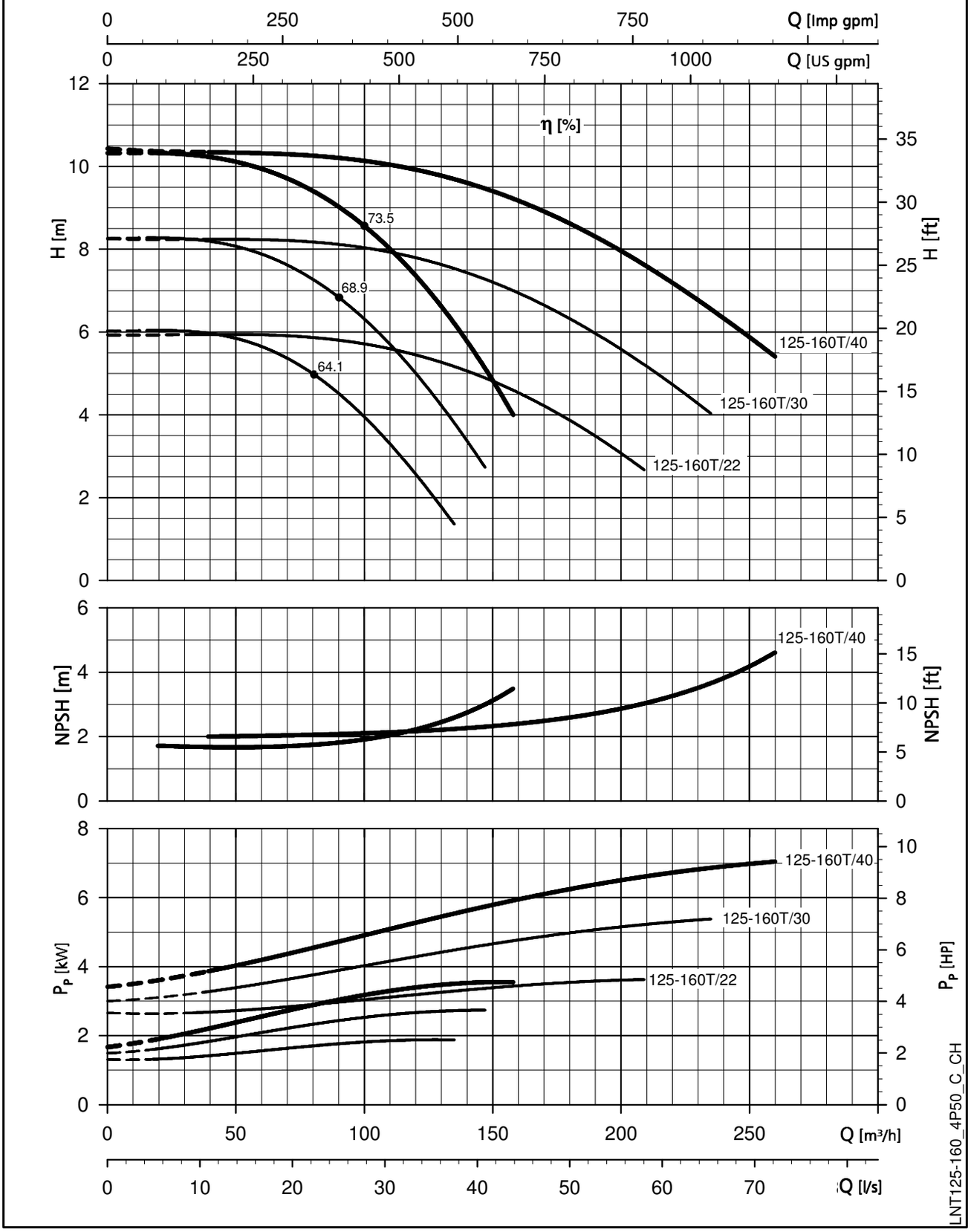
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 125-160	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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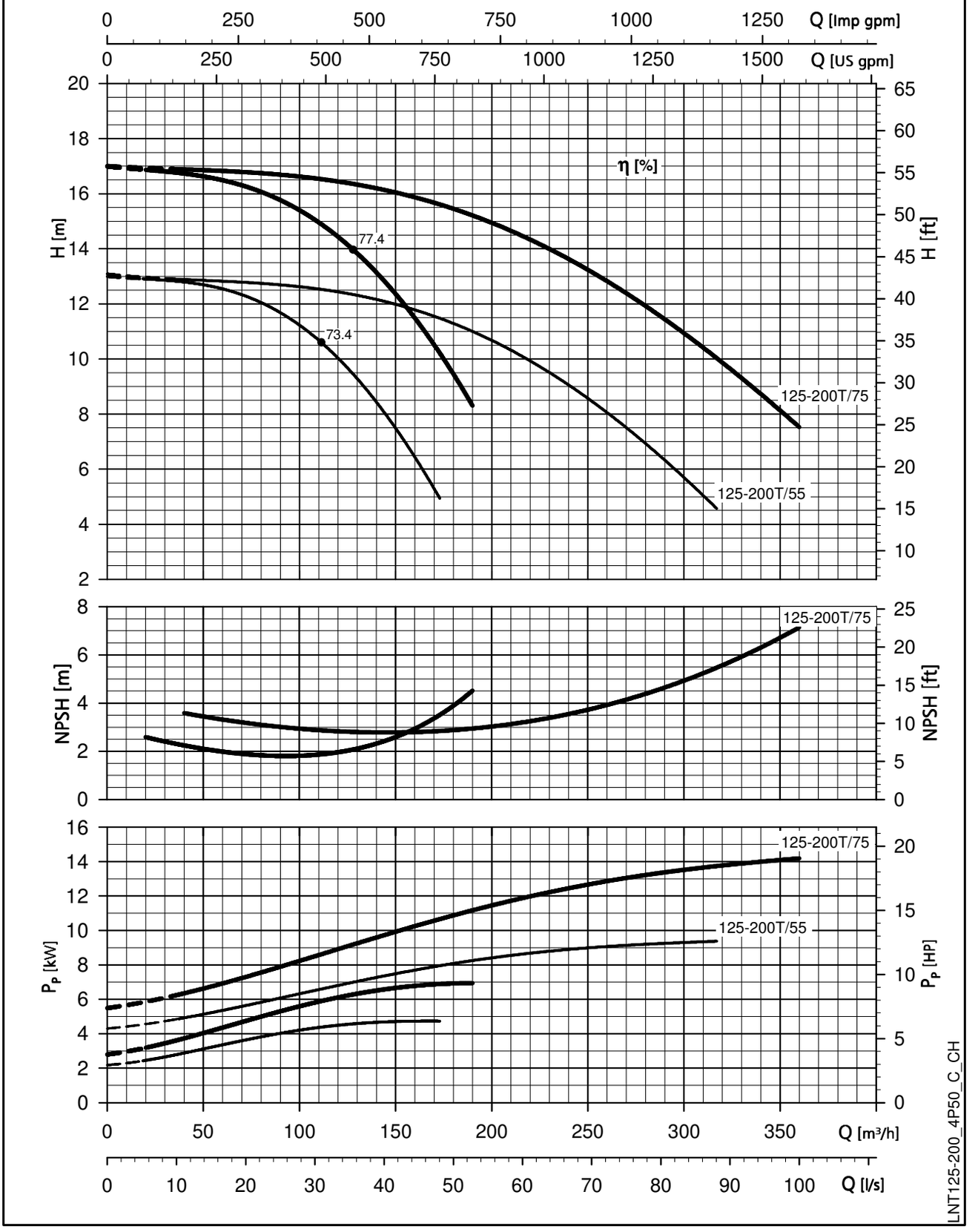
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 125-200	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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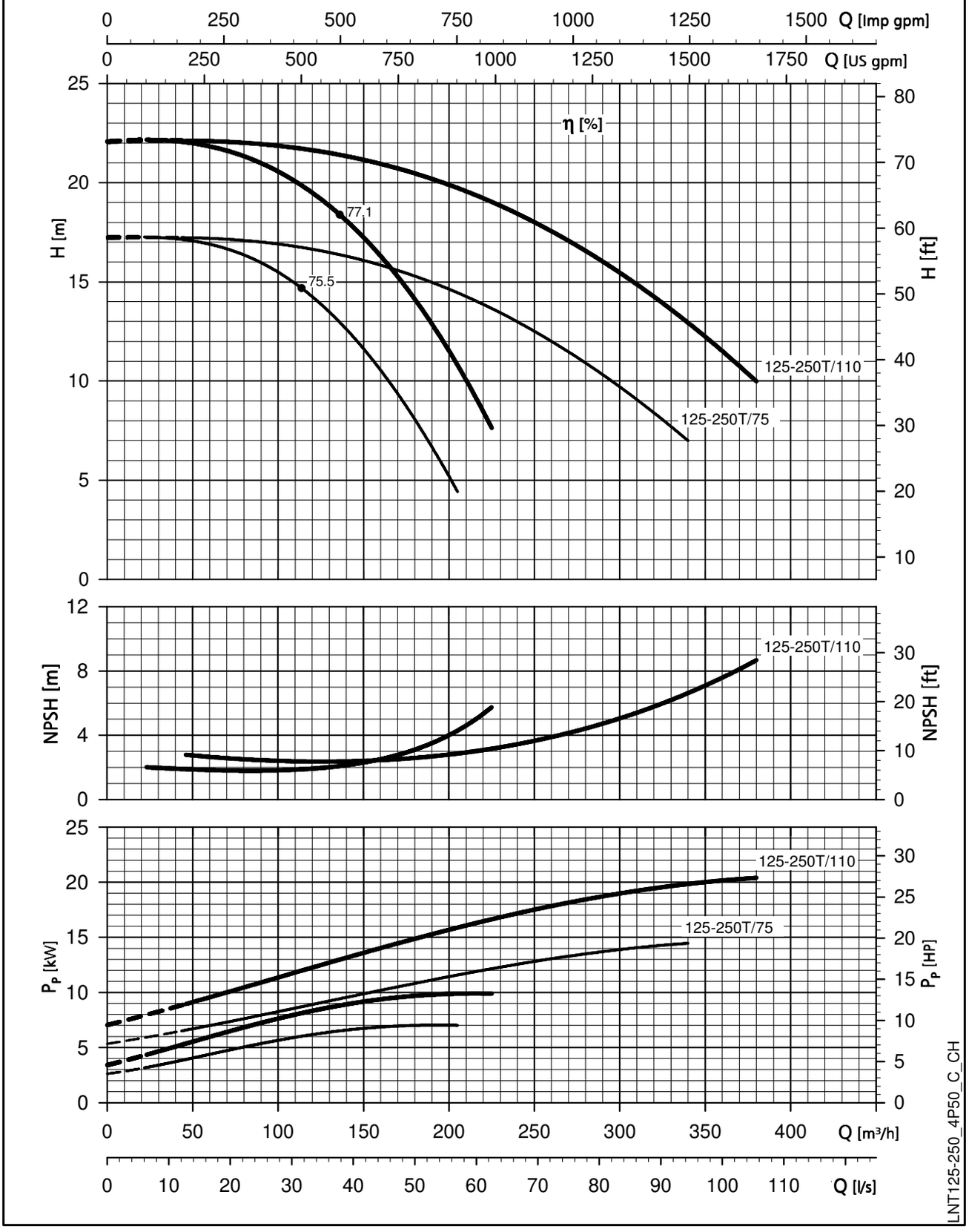
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 125-250	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B

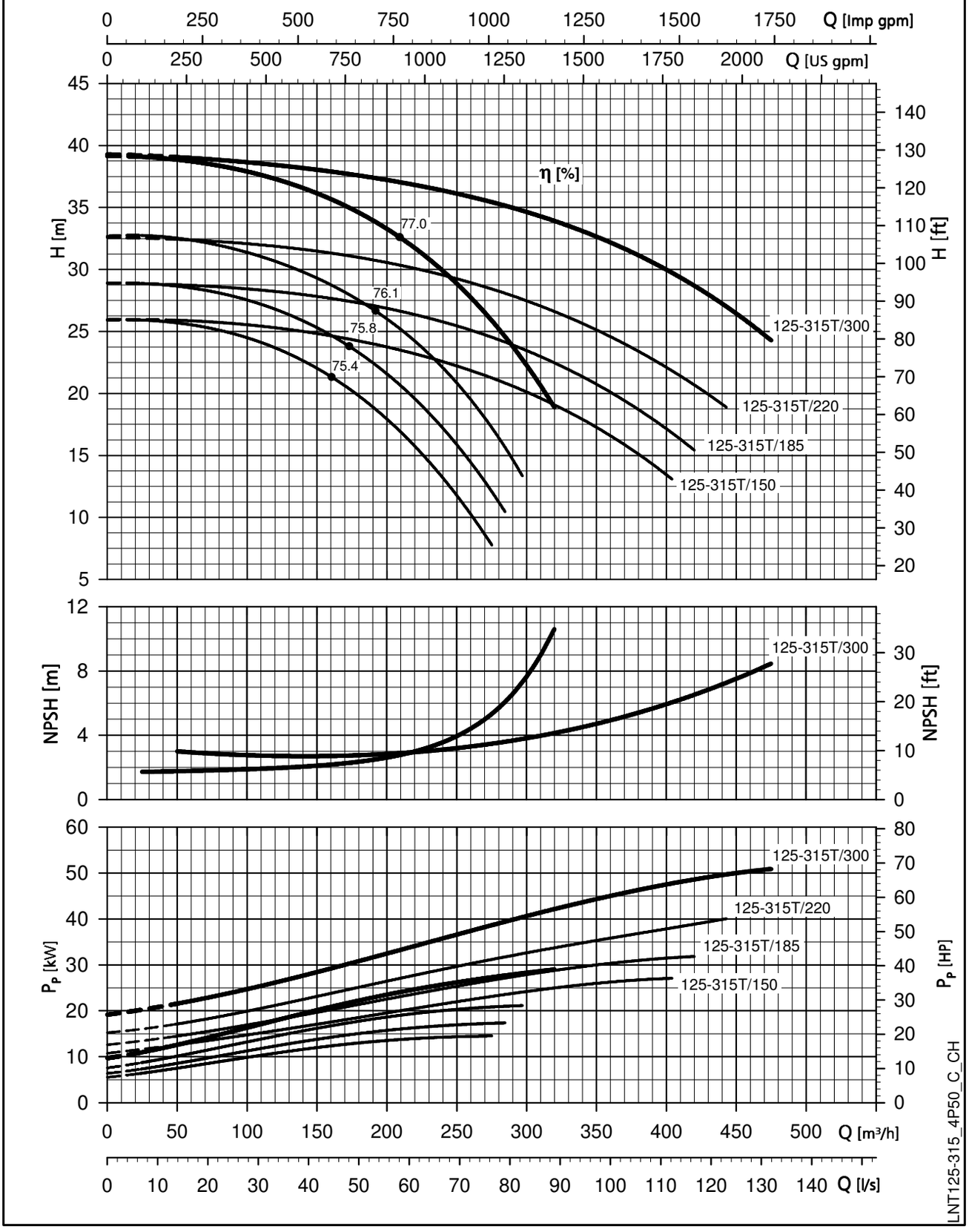


The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
These performances are valid for liquids with density ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

LOWARA
a xylem brand

e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 125-315	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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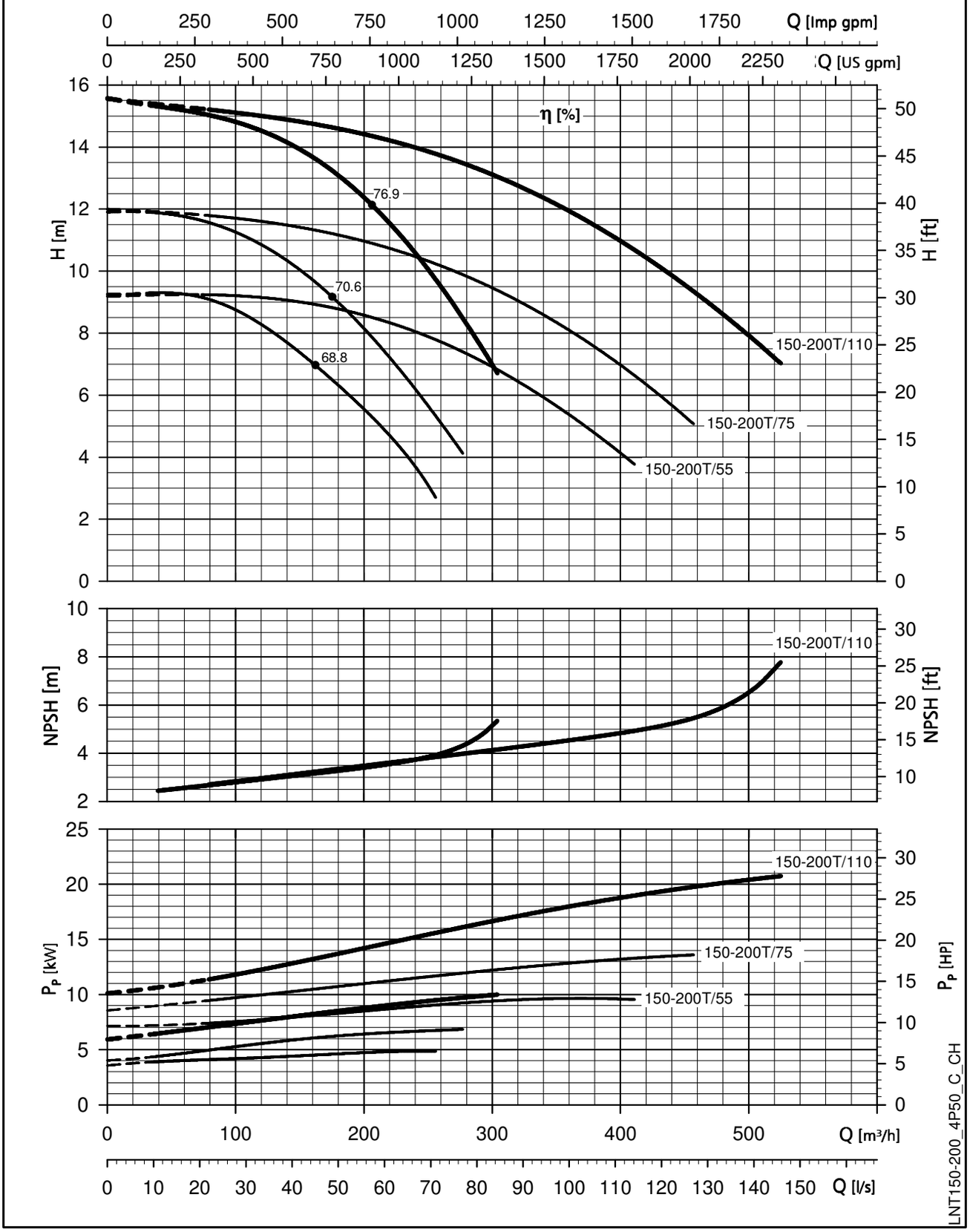
e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 150-200	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm^3 and kinematic viscosity ν = 1 mm^2/sec.

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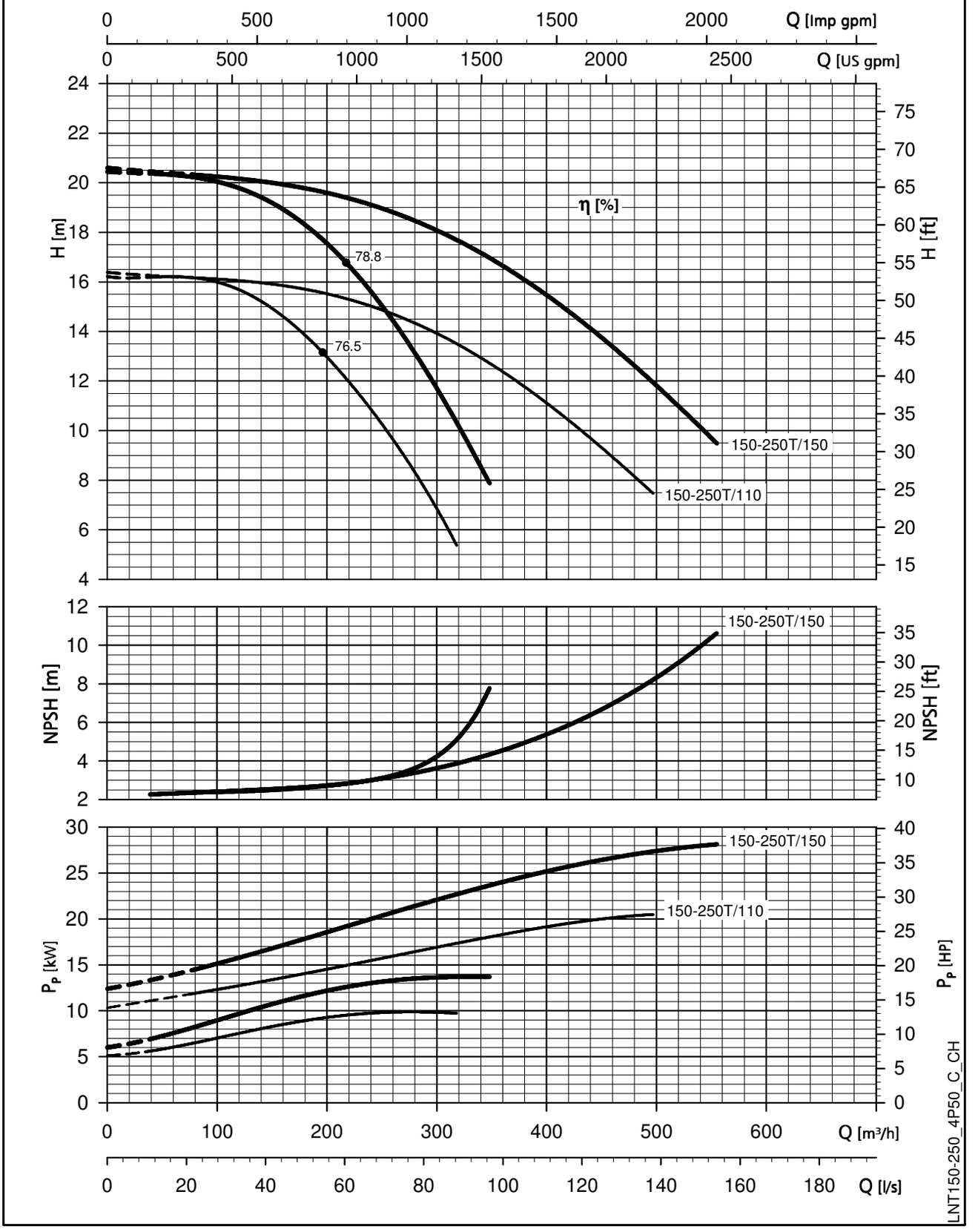
e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 150-250	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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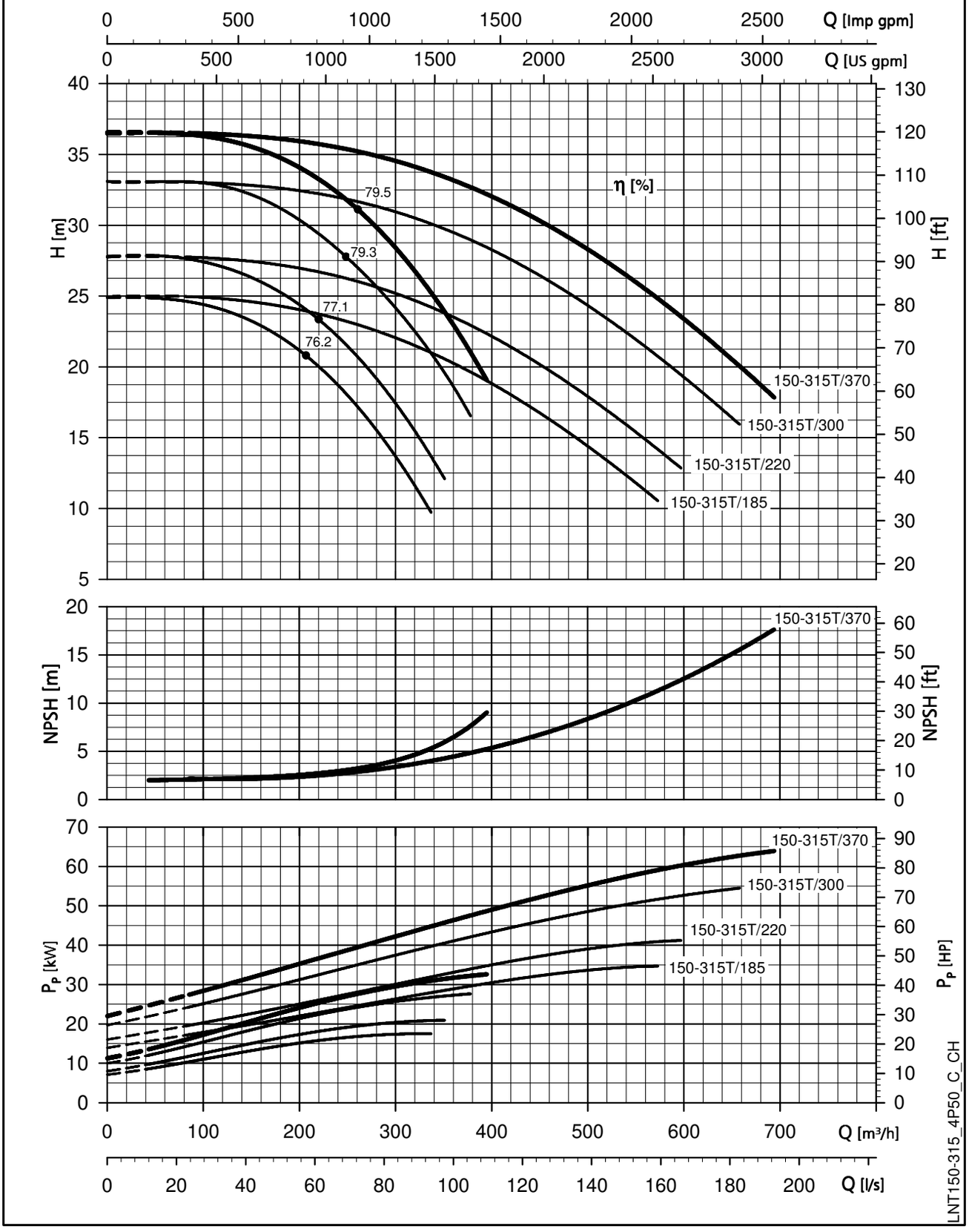
e-LNT SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

LNT 150-315	~ 1450 [rpm]	ISO 9906:2012 - Grade 3B



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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DIMENSIONS AND WEIGHTS

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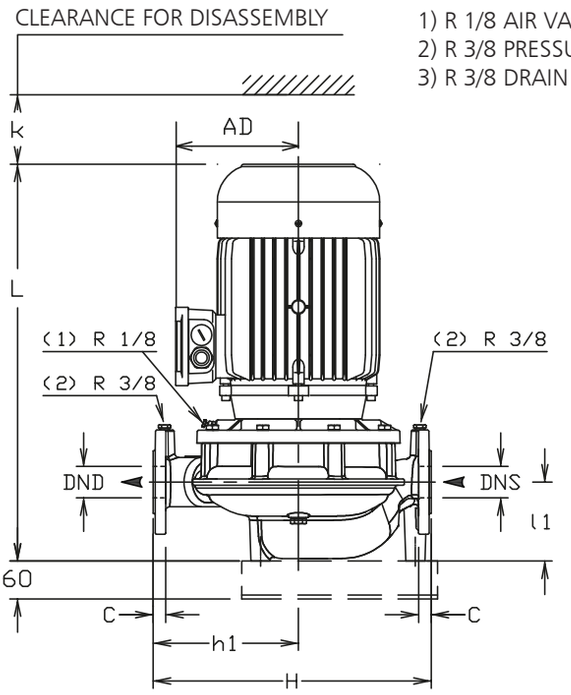
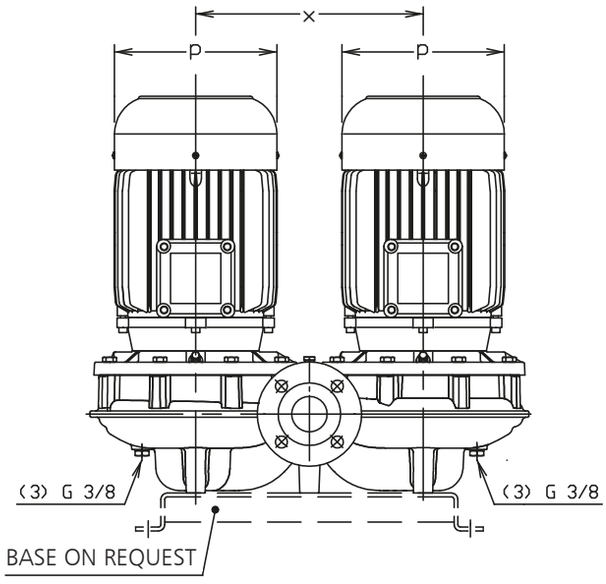
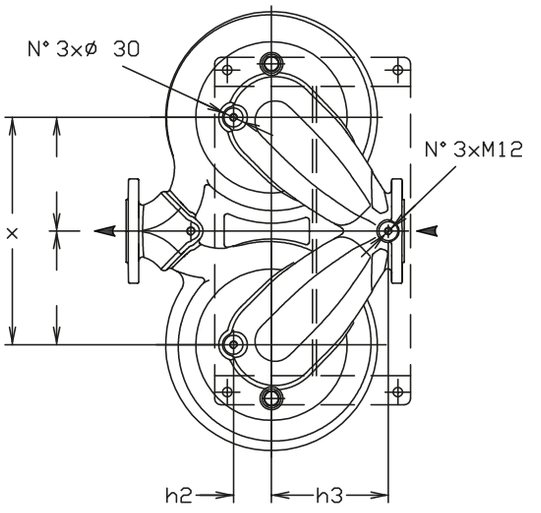
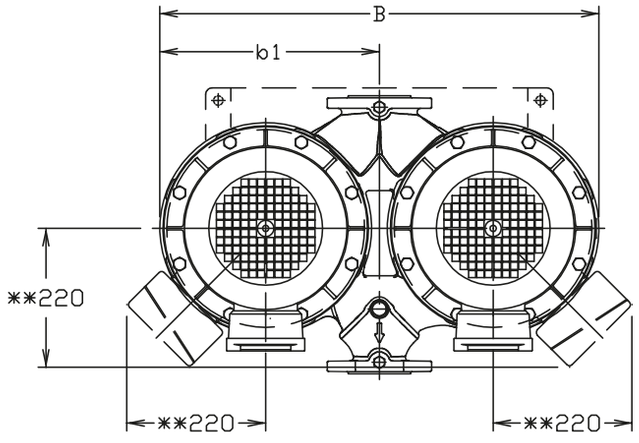
LNTE 32, 40, 50, 65, 80, 100 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

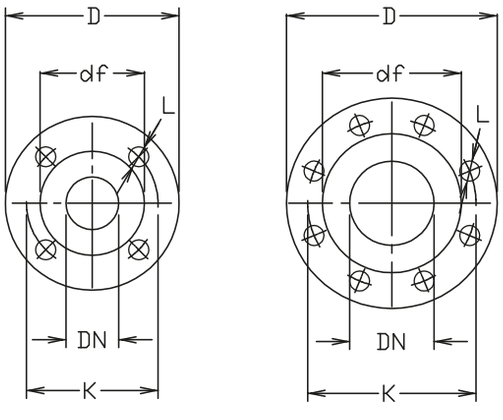








** ONLY FOR MODELS WITH
15 - 18,5 - 22 kW MOTORS



FLANGE

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

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

A0022_C_DD

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

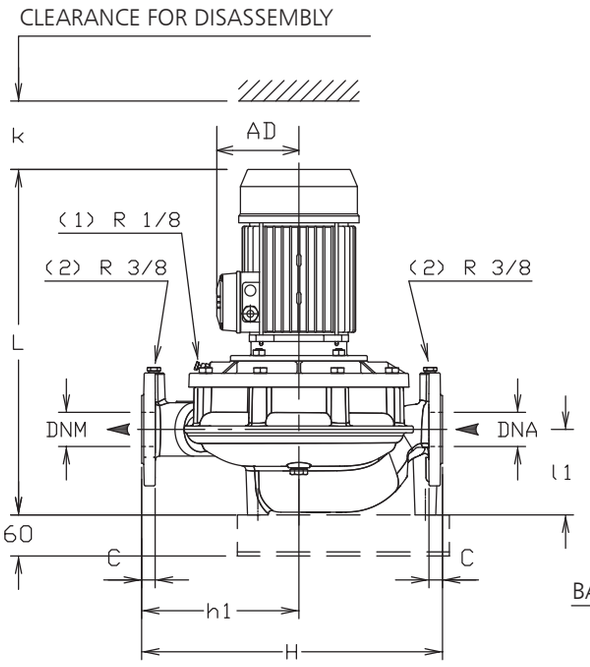
PUMP TYPE LNTE..2	DIMENSIONS (mm)										B	H	L	k	WEIGHT
	DND	DNS	b1	h1	h2	h3	AD	l1	p	x					kg
32-160/07A/S	32	32	257	180	40	110	129	90	155	275	514	320	453	75	53
32-160/07/S	32	32	257	180	40	110	129	90	155	275	514	320	453	75	53
32-160/11/S	32	32	257	180	40	110	129	90	155	275	514	320	453	75	55
32-160/15/S	32	32	257	180	40	110	129	90	155	275	514	320	453	75	63
32-160/22/P	32	32	257	180	40	110	134	90	174	275	514	320	488	75	77
32-160/30/P	32	32	257	180	40	110	134	90	174	275	514	320	488	75	79
40-125/11/S	40	40	274,5	180	52	110	129	100	155	310	549	320	463	94	57
40-125/15/S	40	40	274,5	180	52	110	129	100	155	310	549	320	463	94	65
40-125/22/P	40	40	274,5	180	52	110	134	100	174	310	549	320	498	94	79
40-125/30/P	40	40	274,5	180	52	110	134	100	174	310	549	320	498	94	81
40-160/22/P	40	40	274,5	180	52	110	134	100	174	310	549	320	498	94	79
40-160/30/P	40	40	274,5	180	52	110	134	100	174	310	549	320	498	94	81
40-160/40/P	40	40	274,5	180	52	110	154	100	197	310	549	320	519	94	91
40-160/55/P	40	40	274,5	180	52	110	168	100	214	310	549	320	553	94	109
40-200/30/P	40	40	372,5	220	65	193	134	110	174	410	745	440	506	104	113
40-200/40/P	40	40	372,5	220	65	193	154	110	197	410	745	440	527	104	123
40-200/55/P	40	40	372,5	220	65	193	168	110	214	410	745	440	561	104	141
40-200/75/P	40	40	372,5	220	65	193	191	110	256	410	745	440	575	104	179
40-250/75/P	40	40	372,5	220	65	193	191	110	256	410	745	440	575	104	179
40-250/92/P	40	40	372,5	220	65	193	191	110	256	410	745	440	613	104	191
40-250/110/P	40	40	372,5	220	65	193	191	110	256	410	745	440	613	104	197
40-250/150/P	40	40	372,5	220	65	193	240	110	313	410	745	440	702	104	277
50-125/15/S	50	50	275	190	57	120	129	116	155	310	555	340	479	96	74
50-125/22/P	50	50	275	190	57	120	134	116	174	310	555	340	514	96	88
50-125/30/P	50	50	275	190	57	120	134	116	174	310	555	340	514	96	90
50-125/40/P	50	50	275	190	57	120	154	116	197	310	555	340	535	96	100
50-160/30/P	50	50	275	190	57	120	134	116	174	310	555	340	514	96	90
50-160/40/P	50	50	275	190	57	120	154	116	197	310	555	340	535	96	100
50-160/55/P	50	50	275	190	57	120	168	116	214	310	555	340	569	96	118
50-160/75/P	50	50	275	190	57	120	191	116	256	310	555	340	583	96	156
50-200/55/P	50	50	372,5	230	60	185	168	115	214	410	745	440	568	108	153
50-200/75/P	50	50	372,5	230	60	185	191	115	256	410	745	440	582	108	191
50-200/92/P	50	50	372,5	230	60	185	191	115	256	410	745	440	620	108	203
50-200/110/P	50	50	372,5	230	60	185	191	115	256	410	745	440	620	108	209
50-250/92/P	50	50	372,5	230	60	185	191	115	256	410	745	440	620	108	203
50-250/110/P	50	50	372,5	230	60	185	191	115	256	410	745	440	620	108	209
50-250/150/P	50	50	372,5	230	60	185	240	115	313	410	745	440	709	108	289
50-250/185/P	50	50	372,5	230	60	185	240	115	313	410	745	440	709	108	311
50-250/220/P	50	50	372,5	230	60	185	240	115	313	410	745	440	709	108	329
65-125/30/P	65	65	323	190	75	140	134	122	174	360	646	360	526	100	102
65-125/40/P	65	65	323	190	75	140	154	122	197	360	646	360	547	100	112
65-125/55/P	65	65	323	190	75	140	168	122	214	360	646	360	581	100	130
65-125/75/P	65	65	323	190	75	140	191	122	256	360	646	360	595	100	168
65-160/55/P	65	65	323	190	75	140	168	122	214	360	646	360	581	94	130
65-160/75/P	65	65	323	190	75	140	191	122	256	360	646	360	595	94	168
65-160/92/P	65	65	323	190	75	140	191	122	256	360	646	360	633	94	180
65-160/110/P	65	65	323	190	75	140	191	122	256	360	646	360	633	94	186
65-200/92/P	65	65	377,5	250	76	196	191	118	256	420	762	475	623	105	211
65-200/110/P	65	65	377,5	250	76	196	191	118	256	420	762	475	623	105	217
65-200/150/P	65	65	377,5	250	76	196	240	118	313	420	762	475	712	105	297
65-200/185/P	65	65	377,5	250	76	196	240	118	313	420	762	475	712	105	319
65-250/150/P	65	65	377,5	250	76	196	240	118	313	420	762	475	712	105	297
65-250/185/P	65	65	377,5	250	76	196	240	118	313	420	762	475	712	105	319
65-250/220/P	65	65	377,5	250	76	196	240	118	313	420	762	475	712	105	337
80-125/40/P	80	80	374	235	80	110	154	133	197	410	748	420	552	111	151
80-125/110/P	80	80	374	235	80	110	191	133	256	410	748	420	638	111	225
80-160/55/P	80	80	374	235	80	110	168	133	214	410	748	420	586	111	169
80-160/75/P	80	80	374	235	80	110	191	133	256	410	748	420	600	111	207
80-160/92/P	80	80	374	235	80	110	191	133	256	410	748	420	638	111	219
80-160/110/P	80	80	374	235	80	110	191	133	256	410	748	420	638	111	225
80-160/150/P	80	80	374	235	80	110	240	133	313	410	748	420	727	111	305
80-160/185/P	80	80	374	235	80	110	240	133	313	410	748	420	727	111	327
100-160/110/P	100	100	374	280	87	125	191	158	256	410	748	500	668	123	237
100-160/150/P	100	100	374	280	87	125	240	158	313	410	748	500	757	123	317
100-160/185/P	100	100	374	280	87	125	240	158	313	410	748	500	757	123	339
100-160/220/P	100	100	374	280	87	125	240	158	313	410	748	500	757	123	357

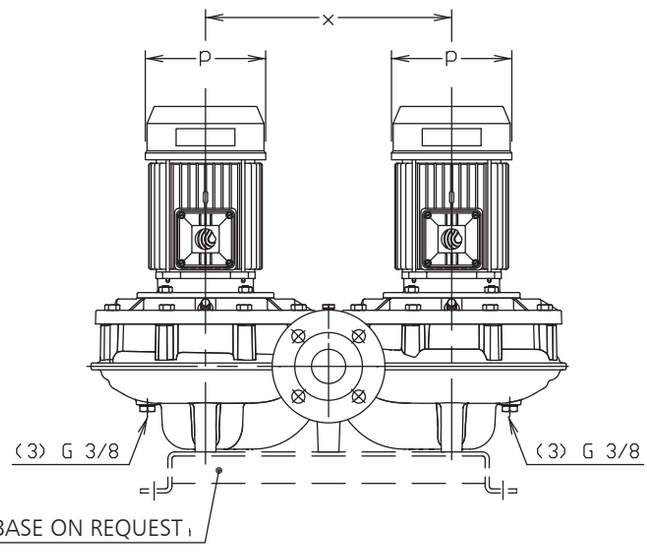
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

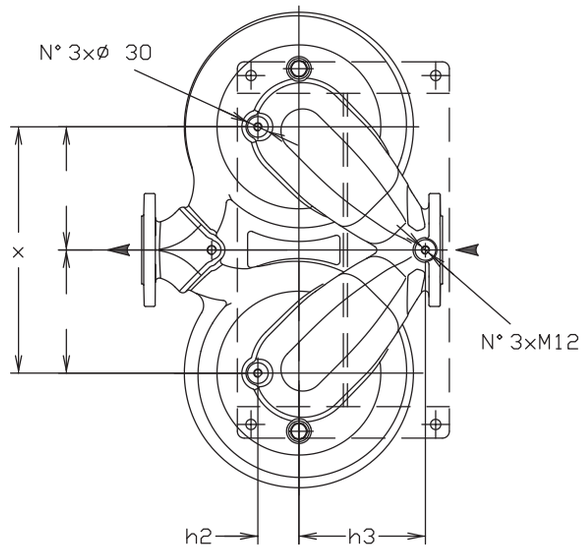
LNTE-32-100_2p50-en_b_td

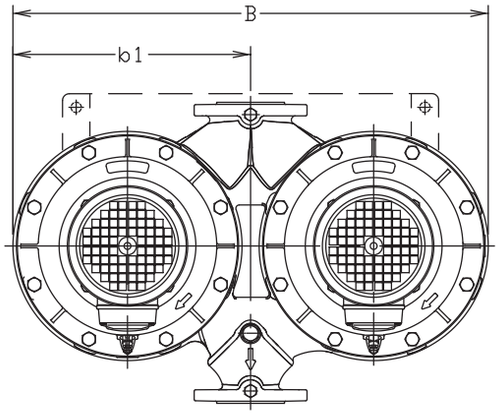
LOWARA
a xylem brand

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

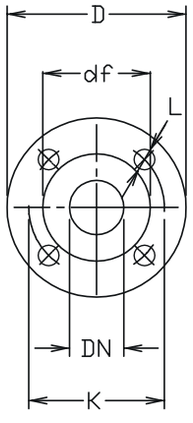


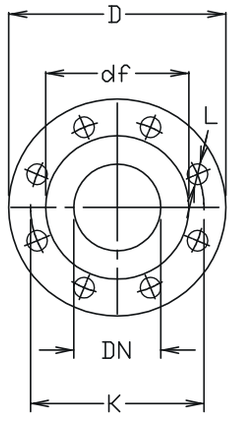






1) R 1/8 AIR VALVE
2) R 3/8 PRESSURE GAUGE CONNECTOR
3) R 3/8 DRAIN





FLANGE

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

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

A0023_C_DD

LOWARA
a xylem brand

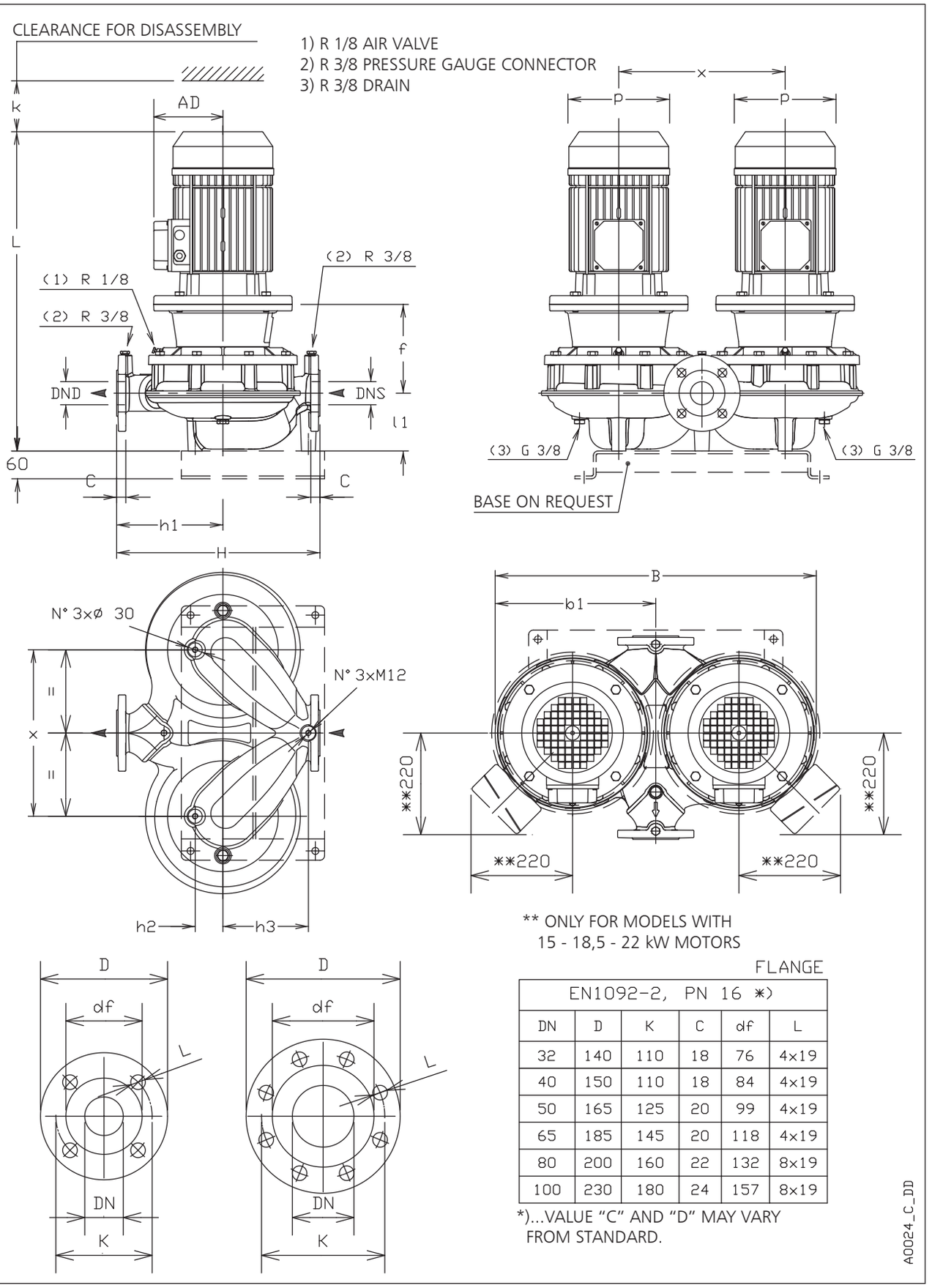
LNTE 32, 40, 50, 65, 80, 100 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE LNTE..4	DIMENSIONS (mm)										B	H	L	k	WEIGHT
	DND	DNS	b1	h1	h2	h3	AD	l1	p	x					kg
32-160/02A/X	32	32	257	180	40	110	110	90	138	275	514	320	403	75	48
32-160/02/X	32	32	257	180	40	110	110	90	138	275	514	320	403	75	48
32-160/03/X	32	32	257	180	40	110	110	90	138	275	514	320	403	75	49
40-125/02B/X	40	40	274,5	180	52	110	110	100	138	310	549	320	413	94	50
40-125/02A/X	40	40	274,5	180	52	110	110	100	138	310	549	320	413	94	50
40-125/02/X	40	40	274,5	180	52	110	110	100	138	310	549	320	413	94	50
40-125/03/X	40	40	274,5	180	52	110	110	100	138	310	549	320	413	94	51
40-160/02/X	40	40	274,5	180	52	110	110	100	138	310	549	320	413	94	50
40-160/03/X	40	40	274,5	180	52	110	110	100	138	310	549	320	413	94	51
40-160/05/X	40	40	274,5	180	52	110	128	100	159	310	549	320	431	94	56
40-160/07/X	40	40	274,5	180	52	110	128	100	159	310	549	320	431	94	57
40-200/05A/X	40	40	372,5	220	65	193	128	110	159	410	745	440	439	104	88
40-200/05/X	40	40	372,5	220	65	193	128	110	159	410	745	440	439	104	88
40-200/07/X	40	40	372,5	220	65	193	128	110	159	410	745	440	439	104	95
40-200/11/P	40	40	372,5	220	65	193	134	110	174	410	745	440	506	104	107
40-250/15B/P	40	40	372,5	220	65	193	134	110	174	410	745	440	506	104	115
40-250/15A/P	40	40	372,5	220	65	193	134	110	174	410	745	440	506	104	115
40-250/15/P	40	40	372,5	220	65	193	134	110	174	410	745	440	506	104	115
40-250/22/P	40	40	372,5	220	65	193	168	110	214	410	745	440	530	104	135
50-125/02A/X	50	50	275	190	57	120	110	116	138	310	555	340	429	96	58
50-125/02/X	50	50	275	190	57	120	110	116	138	310	555	340	429	96	58
50-125/03/X	50	50	275	190	57	120	110	116	138	310	555	340	429	96	58
50-125/05/X	50	50	275	190	57	120	128	116	159	310	555	340	447	96	65
50-160/03/X	50	50	275	190	57	120	110	116	138	310	555	340	429	96	60
50-160/05/X	50	50	275	190	57	120	128	116	159	310	555	340	447	96	65
50-160/07/X	50	50	275	190	57	120	128	116	159	310	555	340	447	96	72
50-160/11/P	50	50	275	190	57	120	134	116	174	310	555	340	514	96	88
50-200/07/X	50	50	372,5	230	60	185	128	115	159	410	745	440	446	108	91
50-200/11A/P	50	50	372,5	230	60	185	134	115	174	410	745	440	513	108	119
50-200/11/P	50	50	372,5	230	60	185	134	115	174	410	745	440	513	108	119
50-200/15/P	50	50	372,5	230	60	185	134	115	174	410	745	440	513	108	127
50-250/15A/P	50	50	372,5	230	60	185	134	115	174	410	745	440	513	108	127
50-250/15/P	50	50	372,5	230	60	185	134	115	174	410	745	440	513	108	127
50-250/22A/P	50	50	372,5	230	60	185	168	115	214	410	745	440	537	108	147
50-250/22/P	50	50	372,5	230	60	185	168	115	214	410	745	440	537	108	147
50-250/30/P	50	50	372,5	230	60	185	168	115	214	410	745	440	568	108	155
65-125/03/X	65	65	323	190	75	140	110	122	138	360	646	360	441	100	72
65-125/05/X	65	65	323	190	75	140	128	122	159	360	646	360	459	100	77
65-125/07/X	65	65	323	190	75	140	128	122	159	360	646	360	459	100	84
65-125/11/P	65	65	323	190	75	140	134	122	174	360	646	360	526	100	96
65-160/07/X	65	65	323	190	75	140	128	122	159	360	646	360	459	94	84
65-160/11A/P	65	65	323	190	75	140	134	122	174	360	646	360	526	94	96
65-160/11/P	65	65	323	190	75	140	134	122	174	360	646	360	526	94	96
65-160/15/P	65	65	323	190	75	140	134	122	174	360	646	360	526	94	104
65-200/15A/P	65	65	377,5	250	76	196	134	118	174	420	762	475	516	105	135
65-200/15/P	65	65	377,5	250	76	196	134	118	174	420	762	475	516	105	135
65-200/22A/P	65	65	377,5	250	76	196	168	118	214	420	762	475	540	105	155
65-200/22/P	65	65	377,5	250	76	196	168	118	214	420	762	475	540	105	155
65-250/22A/P	65	65	377,5	250	76	196	168	118	214	420	762	475	540	105	155
65-250/22/P	65	65	377,5	250	76	196	168	118	214	420	762	475	540	105	155
65-250/30/P	65	65	377,5	250	76	196	168	118	214	420	762	475	571	105	163
65-250/40/P	65	65	377,5	250	76	196	168	118	214	420	762	475	600	105	201
80-125/05/X	80	80	374	235	80	110	128	133	159	410	748	420	464	111	116
80-125/15/P	80	80	374	235	80	110	134	133	174	410	748	420	531	111	143
80-160/15C/P	80	80	374	235	80	110	134	133	174	410	748	420	531	111	143
80-160/15B/P	80	80	374	235	80	110	134	133	174	410	748	420	531	111	143
80-160/15A/P	80	80	374	235	80	110	134	133	174	410	748	420	531	111	143
80-160/15/P	80	80	374	235	80	110	134	133	174	410	748	420	531	111	143
80-160/22A/P	80	80	374	235	80	110	168	133	214	410	748	420	555	111	163
80-160/22/P	80	80	374	235	80	110	168	133	214	410	748	420	555	111	163
100-160/15/P	100	100	374	280	87	125	134	158	174	410	748	500	561	123	155
100-160/22A/P	100	100	374	280	87	125	168	158	214	410	748	500	585	123	175
100-160/22/P	100	100	374	280	87	125	168	158	214	410	748	500	585	123	175
100-160/30/P	100	100	374	280	87	125	168	158	214	410	748	500	616	123	183

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

LNTE-32-100_4p50-en_c_td

LNTS 32, 40, 50, 65 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
32	140	110	18	76	4x19
40	150	110	18	84	4x19
50	165	125	20	99	4x19
65	185	145	20	118	4x19
80	200	160	22	132	8x19
100	230	180	24	157	8x19

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

A0024_C_DD

LOWARA
a xylem brand

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

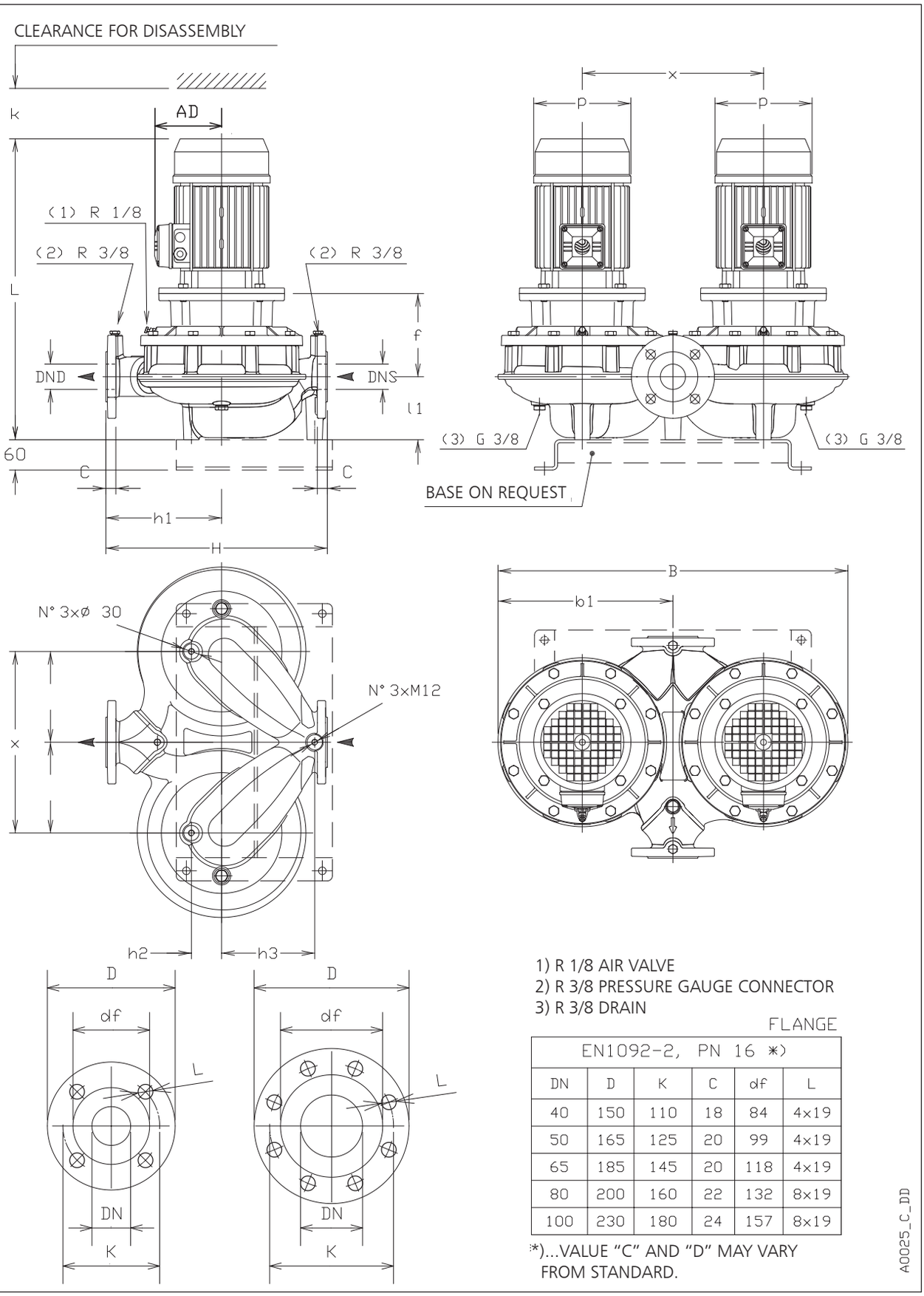
PUMP TYPE LNTS..2	DIMENSIONS (mm)											B	H	L	k	WEIGHT
	DND	DNS	b1	f	h1	h2	h3	AD	l1	p	x					kg
32-160/07A/S	32	32	257	155	180	40	110	129	90	155	275	514	320	508	75	59
32-160/07/S	32	32	257	155	180	40	110	129	90	155	275	514	320	508	75	59
32-160/11/S	32	32	257	155	180	40	110	129	90	155	275	514	320	508	75	61
32-160/15/S	32	32	257	155	180	40	110	129	90	155	275	514	320	508	75	69
32-160/22/P	32	32	257	155	180	40	110	134	90	174	275	514	320	543	75	83
32-160/30/P	32	32	257	165	180	40	110	134	90	174	275	514	320	553	75	93
40-125/11/S	40	40	274,5	155	180	52	110	129	100	155	310	549	320	518	94	63
40-125/15/S	40	40	274,5	155	180	52	110	129	100	155	310	549	320	518	94	71
40-125/22/P	40	40	274,5	155	180	52	110	134	100	174	310	549	320	553	94	85
40-125/30/P	40	40	274,5	165	180	52	110	134	100	174	310	549	320	563	94	95
40-160/22/P	40	40	274,5	155	180	52	110	134	100	174	310	549	320	553	94	85
40-160/30/P	40	40	274,5	165	180	52	110	134	100	174	310	549	320	563	94	95
40-160/40/P	40	40	274,5	165	180	52	110	154	100	197	310	549	320	584	94	101
40-160/55/P	40	40	274,5	192	180	52	110	168	100	214	310	549	320	667	94	127
40-200/30/P	40	40	372,5	163	220	65	193	134	110	174	410	745	440	571	104	127
40-200/40/P	40	40	372,5	163	220	65	193	154	110	197	410	745	440	592	104	133
40-200/55/P	40	40	372,5	190	220	65	193	168	110	214	410	745	440	675	104	159
40-200/75/P	40	40	372,5	190	220	65	193	191	110	256	410	745	440	667	104	197
40-250/75/P	40	40	372,5	190	220	65	193	191	110	256	410	745	440	667	104	197
40-250/110A/P	40	40	372,5	220	220	65	193	191	110	256	410	745	440	758	104	231
40-250/110/P	40	40	372,5	220	220	65	193	191	110	256	410	745	440	758	104	231
40-250/150/P	40	40	372,5	220	220	65	193	240	110	313	410	745	440	824	104	297
50-125/15/S	50	50	275	155	190	57	120	129	116	155	310	555	340	534	96	80
50-125/22/P	50	50	275	155	190	57	120	134	116	174	310	555	340	569	96	94
50-125/30/P	50	50	275	165	190	57	120	134	116	174	310	555	340	579	96	104
50-125/40/P	50	50	275	165	190	57	120	154	116	197	310	555	340	600	96	110
50-160/30/P	50	50	275	165	190	57	120	134	116	174	310	555	340	579	96	104
50-160/40/P	50	50	275	165	190	57	120	154	116	197	310	555	340	600	96	110
50-160/55/P	50	50	275	192	190	57	120	168	116	214	310	555	340	683	96	135
50-160/75/P	50	50	275	192	190	57	120	191	116	256	310	555	340	675	96	174
50-200/55/P	50	50	372,5	192	230	60	185	168	115	214	410	745	440	682	108	171
50-200/75/P	50	50	372,5	192	230	60	185	191	115	256	410	745	440	674	108	209
50-200/110A/P	50	50	372,5	222	230	60	185	191	115	256	410	745	440	765	108	243
50-200/110/P	50	50	372,5	222	230	60	185	191	115	256	410	745	440	765	108	243
50-250/110A/P	50	50	372,5	222	230	60	185	191	115	256	410	745	440	765	108	243
50-250/110/P	50	50	372,5	222	230	60	185	191	115	256	410	745	440	765	108	243
50-250/150/P	50	50	372,5	222	230	60	185	240	115	313	410	745	440	831	108	309
50-250/185/P	50	50	372,5	222	230	60	185	240	115	313	410	745	440	831	108	327
50-250/220/P	50	50	372,5	222	230	60	185	240	115	313	410	745	440	831	108	349
65-125/30/P	65	65	323	171	190	75	140	134	122	174	360	646	360	591	100	116
65-125/40/P	65	65	323	171	190	75	140	154	122	197	360	646	360	612	100	122
65-125/55/P	65	65	323	198	190	75	140	168	122	214	360	646	360	695	100	149
65-125/75/P	65	65	323	198	190	75	140	191	122	256	360	646	360	687	100	187
65-160/55/P	65	65	323	198	190	75	140	168	122	214	360	646	360	695	94	149
65-160/75/P	65	65	323	198	190	75	140	191	122	256	360	646	360	687	94	187
65-160/110A/P	65	65	323	228	190	75	140	191	122	256	360	646	360	778	94	230
65-160/110/P	65	65	323	228	190	75	140	191	122	256	360	646	360	778	94	230
65-200/110A/P	65	65	377,5	222	250	76	196	191	118	256	420	762	475	768	105	251
65-200/110/P	65	65	377,5	222	250	76	196	191	118	256	420	762	475	768	105	251
65-200/150/P	65	65	377,5	222	250	76	196	240	118	313	420	762	475	834	105	317
65-200/185/P	65	65	377,5	222	250	76	196	240	118	313	420	762	475	834	105	335
65-250/150/P	65	65	377,5	222	250	76	196	240	118	313	420	762	475	834	105	317
65-250/185/P	65	65	377,5	222	250	76	196	240	118	313	420	762	475	834	105	335
65-250/220/P	65	65	377,5	222	250	76	196	240	118	313	420	762	475	834	105	357
65-250/300/L	65	65	377,5	228	250	76	196	285	118	408	420	762	475	1017	105	480

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

LNTS-32-65_2p50-en_b_td

LOWARA
a xylem brand

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



1) R 1/8 AIR VALVE
2) R 3/8 PRESSURE GAUGE CONNECTOR
3) R 3/8 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.

A0025_C_DD

LOWARA
a xylem brand

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

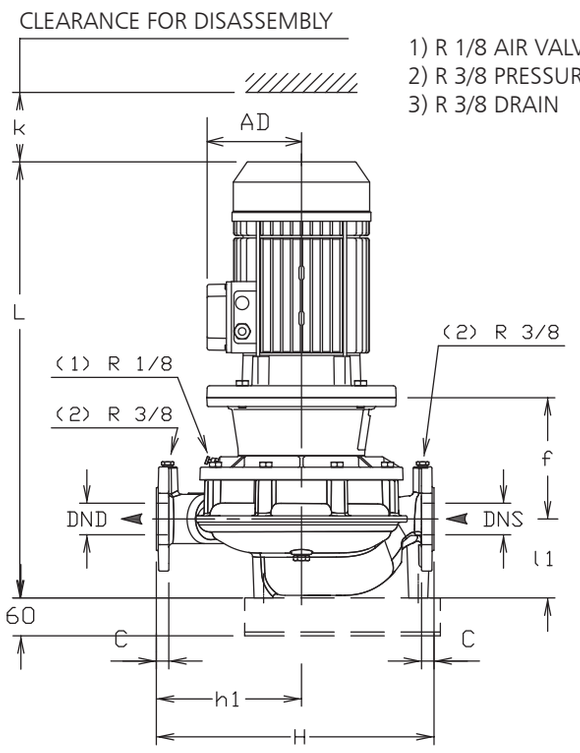
PUMP TYPE LNTS..4	DIMENSIONS (mm)											B	H	L	k	WEIGHT
	DND	DNS	b1	f	h1	h2	h3	AD	l1	p	x					kg
40-160/05/X	40	40	274,5	155	180	52	110	128	100	159	310	549	320	486	94	62
40-160/07/X	40	40	274,5	155	180	52	110	128	100	159	310	549	320	486	94	69
40-200/05A/X	40	40	372,5	152	220	65	193	128	110	155	410	745	440	494	104	94
40-200/05/X	40	40	372,5	152	220	65	193	128	110	159	410	745	440	494	104	94
40-200/07/X	40	40	372,5	152	220	65	193	128	110	159	410	745	440	494	104	101
40-200/11/P	40	40	372,5	152	220	65	193	134	110	174	410	745	440	561	104	113
40-250/11/P	40	40	372,5	152	220	65	193	134	110	174	410	745	440	561	104	113
40-250/15A/P	40	40	372,5	152	220	65	193	134	110	174	410	745	440	561	104	113
40-250/15/P	40	40	372,5	152	220	65	193	134	110	174	410	745	440	561	104	121
40-250/22/P	40	40	372,5	162	220	65	193	168	110	214	410	745	440	595	104	143
50-125/05/X	50	50	275	155	190	57	120	128	116	159	310	555	340	502	96	71
50-160/05/X	50	50	275	155	190	57	120	128	116	159	310	555	340	502	96	71
50-160/07/X	50	50	275	155	190	57	120	128	116	159	310	555	340	502	96	78
50-160/11/P	50	50	275	155	190	57	120	134	116	174	310	555	340	569	96	90
50-200/07/X	50	50	372,5	155	230	60	185	128	115	159	410	745	440	501	108	113
50-200/11A/P	50	50	372,5	155	230	60	185	134	115	174	410	745	440	568	108	125
50-200/11/P	50	50	372,5	155	230	60	185	134	115	174	410	745	440	568	108	125
50-200/15/P	50	50	372,5	155	230	60	185	134	115	174	410	745	440	568	108	133
50-250/11/P	50	50	372,5	155	230	60	185	134	115	174	410	745	440	568	108	125
50-250/15/P	50	50	372,5	155	230	60	185	134	115	174	410	745	440	568	108	133
50-250/22A/P	50	50	372,5	165	230	60	185	168	115	214	410	745	440	602	108	154
50-250/22/P	50	50	372,5	165	230	60	185	168	115	214	410	745	440	602	108	154
50-250/30/P	50	50	372,5	165	230	60	185	168	115	214	410	745	440	633	108	163
65-125/05/X	65	65	323	161	190	75	140	128	122	159	360	646	360	514	100	84
65-125/07/X	65	65	323	161	190	75	140	128	122	159	360	646	360	514	100	91
65-125/11/P	65	65	323	161	190	75	140	134	122	174	360	646	360	581	100	103
65-160/07/X	65	65	323	161	190	75	140	128	122	159	360	646	360	514	94	91
65-160/11A/P	65	65	323	161	190	75	140	134	122	174	360	646	360	581	94	103
65-160/11/P	65	65	323	161	190	75	140	134	122	174	360	646	360	581	94	103
65-160/15/P	65	65	323	161	190	75	140	134	122	174	360	646	360	581	94	111
65-200/11/P	65	65	377,5	155	250	76	196	134	118	174	420	762	475	571	105	133
65-200/15/P	65	65	377,5	155	250	76	196	134	118	174	420	762	475	571	105	141
65-200/22A/P	65	65	377,5	165	250	76	196	168	118	214	420	762	475	605	105	163
65-200/22/P	65	65	377,5	165	250	76	196	168	118	214	420	762	475	605	105	163
65-250/22A/P	65	65	377,5	165	250	76	196	168	118	214	420	762	475	605	105	163
65-250/22/P	65	65	377,5	165	250	76	196	168	118	214	420	762	475	605	105	163
65-250/30/P	65	65	377,5	165	250	76	196	168	118	214	420	762	475	636	105	171
65-250/40/P	65	65	377,5	165	250	76	196	168	118	214	420	762	475	665	105	209

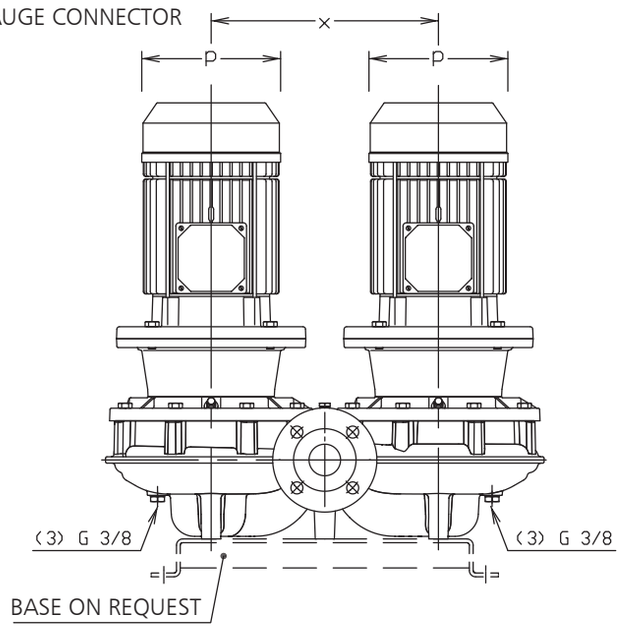
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

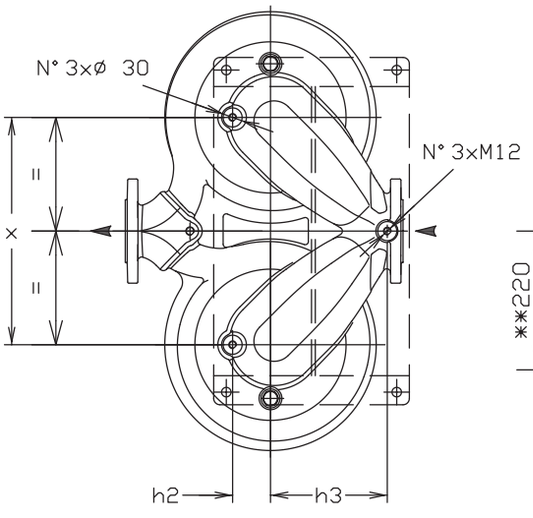
LNTS-40-50-65_4p50-en_e_td

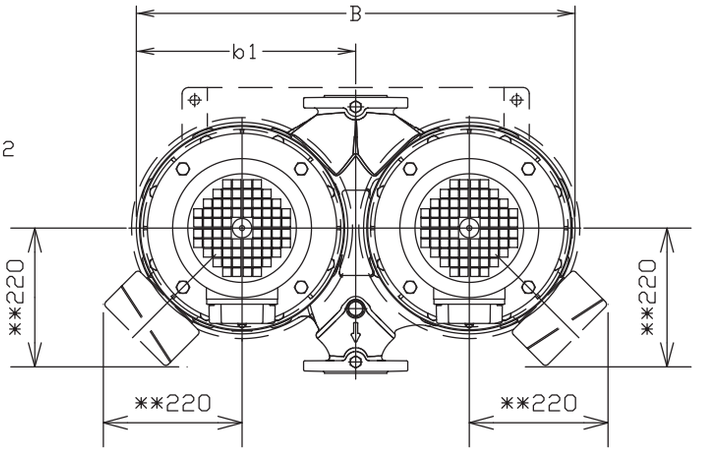
LOWARA
a xylem brand

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

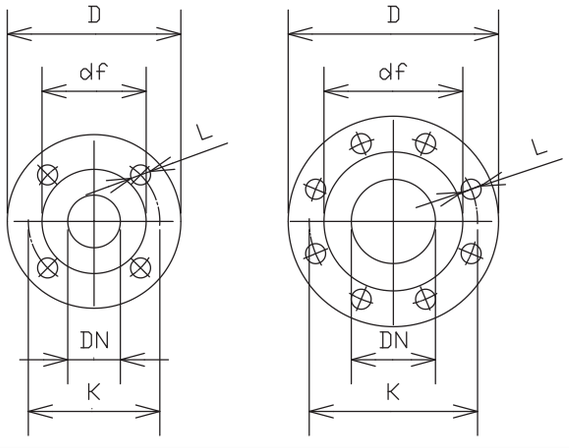








** ONLY FOR MODELS WITH
15 - 18,5 - 22 kW MOTORS



FLANGE

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

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

A0024_C_DD

LOWARA
a xylem brand

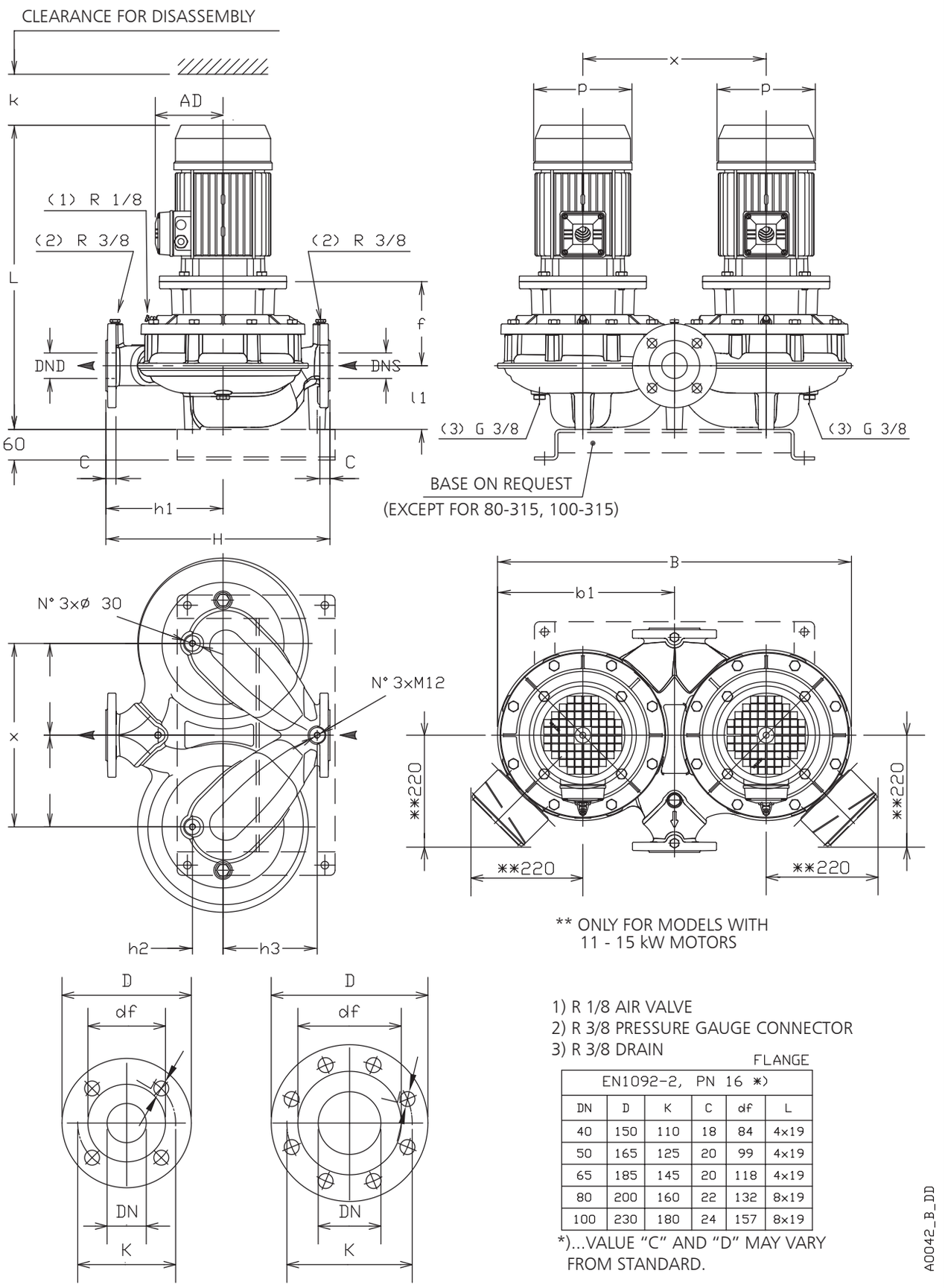
LNTS 80, 100 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE LNTS..2	DIMENSIONS (mm)											B	H	L	k	WEIGHT
	DND	DNS	b1	f	h1	h2	h3	AD	l1	p	x					kg
80-125/40/P	80	80	374	165	235	80	110	154	133	197	410	748	420	617	111	152
80-125/110/P	80	80	374	222	235	80	110	191	133	256	410	748	420	783	111	259
80-160/55/P	80	80	374	192	235	80	110	168	133	214	410	748	420	700	111	178
80-160/75/P	80	80	374	192	235	80	110	191	133	256	410	748	420	692	111	216
80-160/110A/P	80	80	374	222	235	80	110	191	133	256	410	748	420	783	111	259
80-160/110/P	80	80	374	222	235	80	110	191	133	256	410	748	420	783	111	259
80-160/150/P	80	80	374	222	235	80	110	240	133	313	410	748	420	849	111	325
80-160/185/P	80	80	374	222	235	80	110	240	133	313	410	748	420	849	111	343
80-200/110/P	80	80	377,5	240	275	85	140	191	132	256	420	766	500	800	130	259
80-200/150/P	80	80	377,5	240	275	85	140	240	132	313	420	766	500	866	130	325
80-200/185/P	80	80	377,5	240	275	85	140	240	132	313	420	766	500	866	130	343
80-200/220/P	80	80	377,5	240	275	85	140	240	132	313	420	766	500	866	130	365
80-200/300/L	80	80	377,5	246	275	85	140	285	132	408	420	766	500	1049	130	489
80-250/220/P	80	80	377,5	240	275	85	140	240	132	313	420	766	500	866	130	365
80-250/300/L	80	80	377,5	246	275	85	140	285	132	408	420	766	500	1049	130	489
80-250/370/L	80	80	377,5	246	275	85	140	285	132	408	420	766	500	1049	130	491
100-160/110/P	100	100	374	227	280	87	125	191	158	256	410	748	500	813	123	271
100-160/150/P	100	100	374	227	280	87	125	240	158	313	410	748	500	879	123	337
100-160/185/P	100	100	374	227	280	87	125	240	158	313	410	748	500	879	123	355
100-160/220/P	100	100	374	227	280	87	125	240	158	313	410	748	500	879	123	377
100-200/220/P	100	100	381	240	300	90	160	240	179	313	420	783	550	913	152	379
100-200/300/L	100	100	381	246	300	90	160	285	179	408	420	783	550	1096	152	485
100-200/370/L	100	100	381	246	300	90	160	285	179	408	420	783	550	1096	152	487
100-250/370/L	100	100	381	246	300	90	160	285	179	408	420	783	550	1096	152	487

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

LNTS-80-100_2p50-en_d_td

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



** ONLY FOR MODELS WITH
11 - 15 kW MOTORS

1) R 1/8 AIR VALVE
2) R 3/8 PRESSURE GAUGE CONNECTOR
3) R 3/8 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.

A0042_B_DD

LOWARA
a xylem brand

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

PUMP TYPE LNTS..4	DIMENSIONS (mm)											B	H	L	k	WEIGHT
	DND	DNS	b1	f	h1	h2	h3	AD	l1	p	x					kg
80-125/05/X	80	80	374	155	235	80	110	128	133	159	410	748	420	519	111	113
80-125/15/P	80	80	374	155	235	80	110	134	133	174	410	748	420	586	111	149
80-160/11B/P	80	80	374	155	235	80	110	134	133	174	410	748	420	586	111	141
80-160/11A/P	80	80	374	155	235	80	110	134	133	174	410	748	420	586	111	141
80-160/11/P	80	80	374	155	235	80	110	134	133	174	410	748	420	586	111	141
80-160/15/P	80	80	374	155	235	80	110	134	133	174	410	748	420	586	111	149
80-160/22A/P	80	80	374	165	235	80	110	168	133	214	410	748	420	620	111	171
80-160/22/P	80	80	374	165	235	80	110	168	133	24	410	748	420	620	111	171
80-200/15/P	80	80	377,5	173	275	85	140	134	132	174	420	766	500	603	130	170
80-200/22A/P	80	80	377,5	183	275	85	140	168	132	214	420	766	500	637	130	191
80-200/22/P	80	80	377,5	183	275	85	140	168	132	214	420	766	500	637	130	191
80-200/30/P	80	80	377,5	183	275	85	140	168	132	214	420	766	500	668	130	199
80-200/40/P	80	80	377,5	183	275	85	140	168	132	214	420	766	500	697	130	237
80-250/30/P	80	80	377,5	183	275	85	140	168	132	214	420	766	500	668	130	179
80-250/40/P	80	80	377,5	183	275	85	140	168	132	214	420	766	500	697	130	217
80-250/55A/P	80	80	377,5	210	275	85	140	191	132	256	420	766	500	747	130	239
80-250/55/P	80	80	377,5	210	275	85	140	191	132	256	420	766	500	747	130	239
80-250/75/P	80	80	377,5	210	275	85	140	191	132	256	420	766	500	747	130	247
80-315/75/P	80	80	433	210	330	90	140	191	145	256	420	851	620	760	140	323
80-315/110/P	80	80	433	240	330	90	140	240	145	313	420	851	620	879	140	452
80-315/150/P	80	80	433	240	330	90	140	240	145	313	420	851	620	879	140	460
100-160/15/P	100	100	374	160	280	87	125	134	158	174	410	748	500	616	123	162
100-160/22A/P	100	100	374	170	280	87	125	168	158	214	410	748	500	650	123	183
100-160/22/P	100	100	374	170	280	87	125	168	158	214	410	748	500	650	123	183
100-160/30/P	100	100	374	170	280	87	125	168	158	214	410	748	500	681	123	191
100-200/30/P	100	100	381	183	300	90	160	134	179	214	420	783	550	715	152	193
100-200/40/P	100	100	381	183	300	90	160	168	179	214	420	783	550	744	152	231
100-200/55A/P	100	100	381	210	300	90	160	168	179	256	420	783	550	794	152	253
100-200/55/P	100	100	381	210	300	90	160	168	179	256	420	783	550	794	152	253
100-250/55A/P	100	100	381	210	300	90	160	191	179	256	420	783	550	794	152	253
100-250/55/P	100	100	381	210	300	90	160	191	179	256	420	783	550	794	152	253
100-250/75/P	100	100	381	210	300	90	160	191	179	256	420	783	550	794	152	261
100-250/110/P	100	100	381	240	300	90	160	240	179	313	420	783	550	913	152	371
100-315/110/P	100	100	453	240	360	110	155	240	175	313	420	883	670	909	140	483
100-315/150/P	100	100	453	240	360	110	155	240	175	313	420	883	670	909	140	491
100-315/185/L	100	100	453	240	360	110	155	253	175	358	420	883	670	1006	140	501
100-315/220/L	100	100	453	240	360	110	155	253	175	358	420	883	670	1006	140	511

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

LNTS-80-100_4p50-en_e_td

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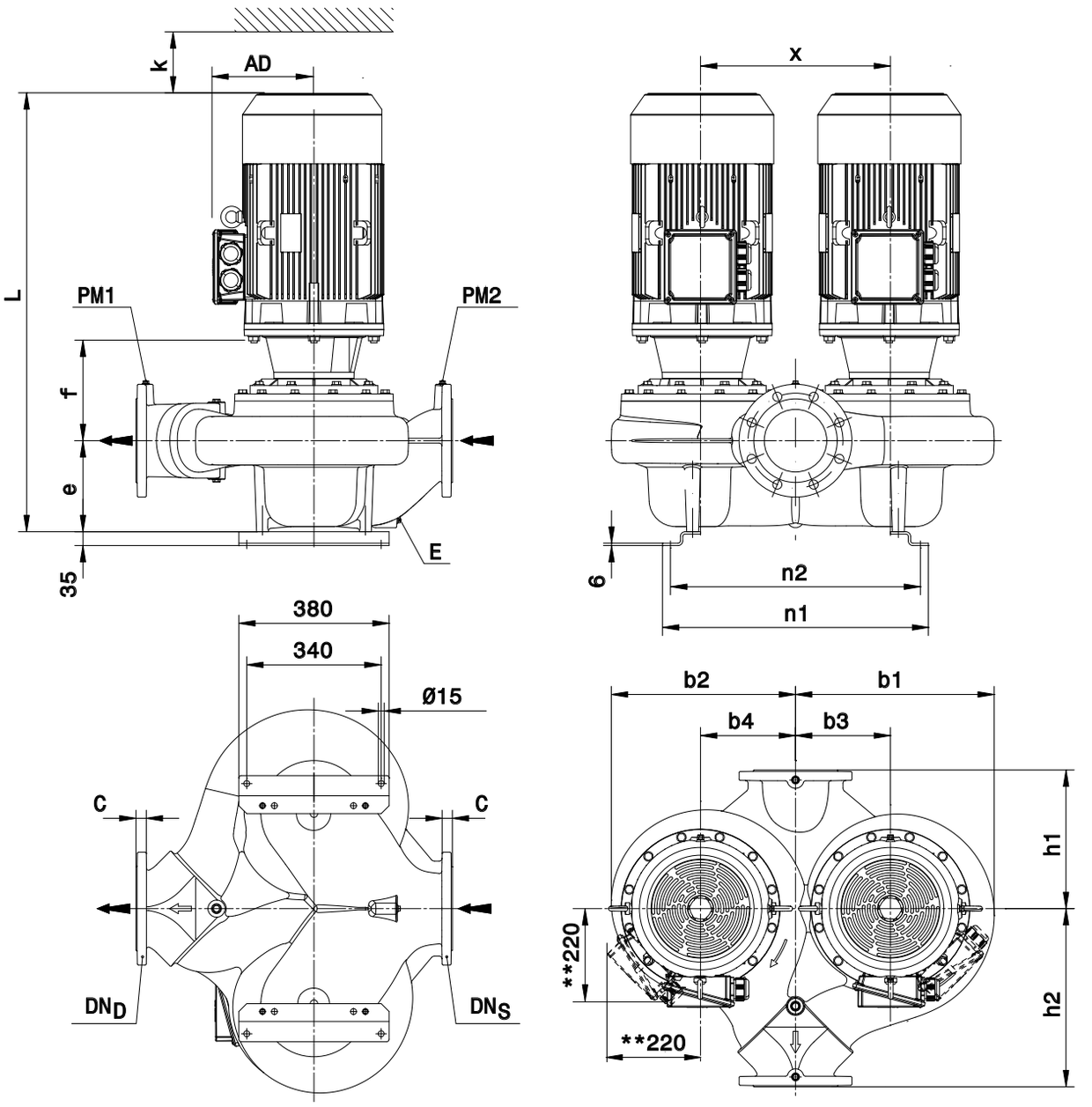
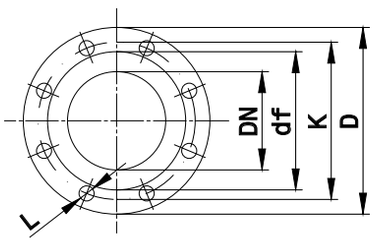
LNTS 125, 150 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES



** ONLY FOR MODELS WITH
11 - 15 kW MOTORS

Flange

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



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

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

LNTS_D_DD

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

PUMP TYPE LNTS..4	DIMENSIONS (mm)																WEIGHT (kg)
	DND	DNS	AD	e	f	h1	h2	n1	n2	b1	b2	b3	b4	k	x	L	G
125-160/22/P	125	125	168	200	183	280	340	572	532	412	365	235	160	160	395	705	233
125-160/30/P	125	125	168	200	183	280	340	572	532	412	365	235	160	160	395	736	246
125-160/40/P	125	125	168	200	183	280	340	572	532	412	365	235	160	160	395	765	289
125-200/55/P	125	125	191	200	210	280	340	572	532	412	365	235	160	160	395	815	309
125-200/75/P	125	125	191	200	210	280	340	572	532	412	365	235	160	160	395	815	319
125-250/75/P	125	125	191	230	215	350	450	652	612	480	516	250	250	250	500	850	403
125-250/110/P	125	125	240	230	245	350	450	652	612	480	516	250	250	250	500	969	447
125-315/150/P	125	125	240	230	245	350	450	652	612	480	516	250	250	250	500	969	565
125-315/185/L	125	125	253	230	245	350	450	652	612	480	516	250	250	250	500	1066	575
125-315/220/L	125	125	253	230	245	350	450	652	612	480	516	250	250	250	500	1066	611
125-315/300/L	125	125	285	230	251	350	450	652	612	480	516	250	250	250	500	1152	738
150-200/55/P	150	150	191	230	225	375	425	672	632	430	478	235	235	235	470	860	397
150-200/75/P	150	150	191	230	225	375	425	672	632	430	478	235	235	235	470	860	406
150-200/110/P	150	150	240	230	255	375	425	672	632	430	478	235	235	235	470	979	450
150-250/110/P	150	150	240	230	240	350	450	632	592	416	465	218	218	218	435	964	424
150-250/150/P	150	150	240	230	240	350	450	632	592	416	465	218	218	218	435	964	508
150-315/185/L	150	150	253	230	254	350	450	672	632	466	503	240	240	240	480	1075	577
150-315/220/L	150	150	253	230	254	350	450	672	632	466	503	240	240	240	480	1075	613
150-315/300/L	150	150	285	230	254	350	450	672	632	466	503	240	240	240	480	1155	733
150-315/370/L	150	150	309	230	284	350	450	672	632	466	503	240	240	240	480	1215	849

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

LNTS-125-150_4p50-en_e_td

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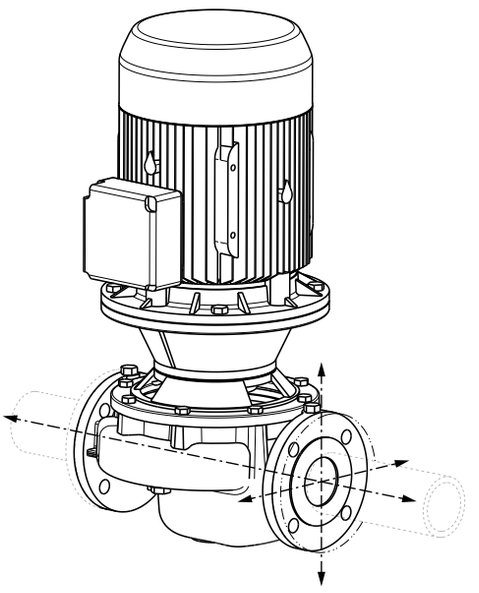
e-LNT SERIES
FORCES AND MOMENTS AT PUMP FLANGES
Valid for pump hanging in the piping



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

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

- any component of a force or of a moment shall be limited to 1,4 times the maximum allowable value;

- the actual forces and moments acting on each flange are governed by the following formula:

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

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

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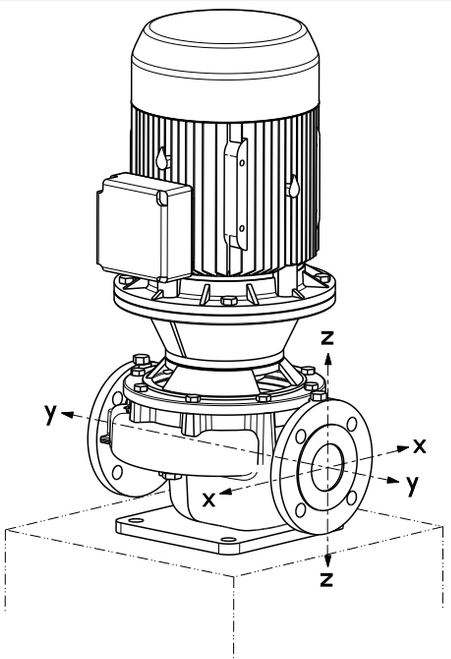
e-LNT SERIES
FORCES AND MOMENTS AT PUMP FLANGES
Valid for pump standing on the support foot



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

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

- any component of a force or of a moment shall be limited to 1,4 times the maximum allowable value;

- the actual forces and moments acting on each flange are governed by the following formula:

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

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

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

e-LNT..E
e-LNT SMART SERIES

Background and context

In every sector, from construction and industry to agriculture and building services the need for intelligent, compact and high-efficiency pumping systems is constantly growing.
That's why Lowara has developed the e-LNT series: an integrated intelligent pumping system with electronically driven, permanent magnet motor (IE5 efficiency level).
The integrated control system, combined with the high performance, power and efficiency from the motor and hydraulics, guarantees impressively low operating costs. You also benefit from flexibility, precision and its ultra-compact size.

Savings

The electronics and permanent magnet motor are highly efficient and minimize power losses while transferring maximum energy to the hydraulic parts of the pump.
The refined control system with integrated microprocessor adjusts the motor speed, matching the required operating point of the pump or system requirements.
This reduces demand on electricity according to the required working conditions.
This creates economies, especially in systems where pump demand varies over time.

Flexibility

The compact size, low loss and increased control make the e-LNT Smart series a good choice in applications and systems where fixed speed pumps are commonly used.
The e-LNT Smart series is easy to integrate in control and regulation loops thanks to the wide availability of compatible communication protocols, including analog and digital inputs.
The pump is supplied as sensorless solution, as standard. This ensures an easier, faster and cheaper installation. Additional pressure sensors can be provided as accessories.

Ease of use and commissioning

e-LNT Smart has an intuitive interface that guides the user through the installation, and a practical area to assist with connections.
The control system is integrated and no additional external electrical panel is required.

Application sectors

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

e-SM System

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

Pump

- Flow rate:
  - up to 44 m^3/h (one pump running)
  - up to 79 m^3/h (two pumps running)
- Head: up to 39 m
- Temperature* of pumped liquid: up to +140°C
- Maximum operating pressure* 16 bar (PN 16)
- The hydraulic performances meet the tolerances specified in ISO 9906:2012

Motor

- IE5 efficiency level (IEC TS 60034-30-2:2016)
- Synchronous electric motor with permanent magnets (TEFC), closed structure, air-cooled
- Insulation class 155 (F)
- Overload protection and locked rotor with automatic reset incorporated
- Environment temperature: -20°C to +50°C with no performance derating

Regulations (EU) 2019/1781 e 2021/341 Annex I – point 4

(Product information)

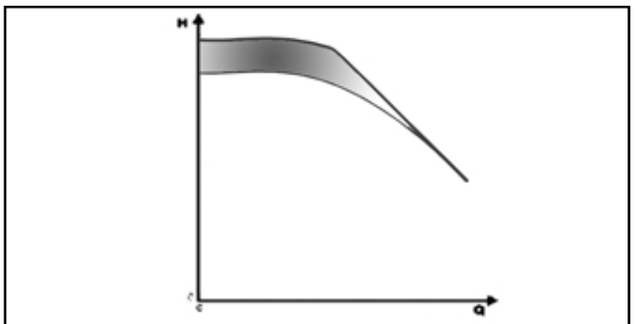
The requirements shall not apply to these variable speed drives, as they are integrated to permanent magnet motors, that aren't covered by the same regulations.

* Pressure/temperature limits for e-LNT Smart are the same as the pump unit (page 17).

e-LNT..E
e-LNT SMART SERIES

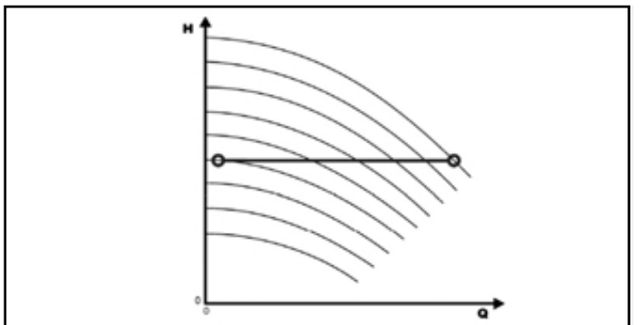
e-LNT Smart series is equipped with an intelligent control that optimizes hydraulic performance while minimizing waste.

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

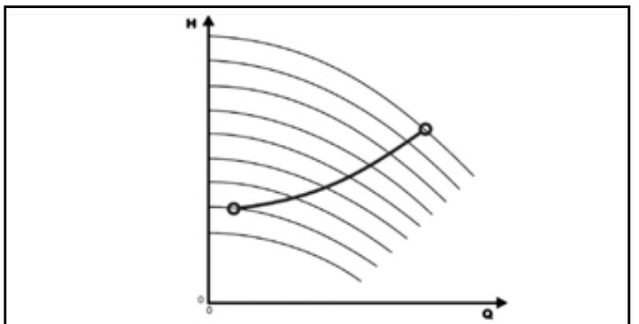


Integrated intelligence

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



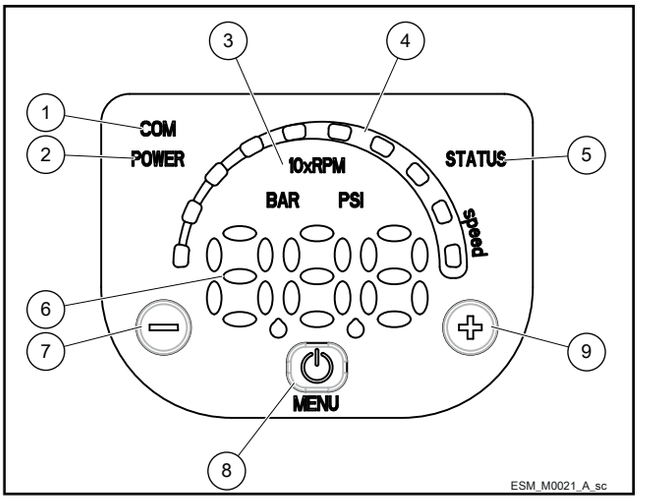
Control for constant pressure



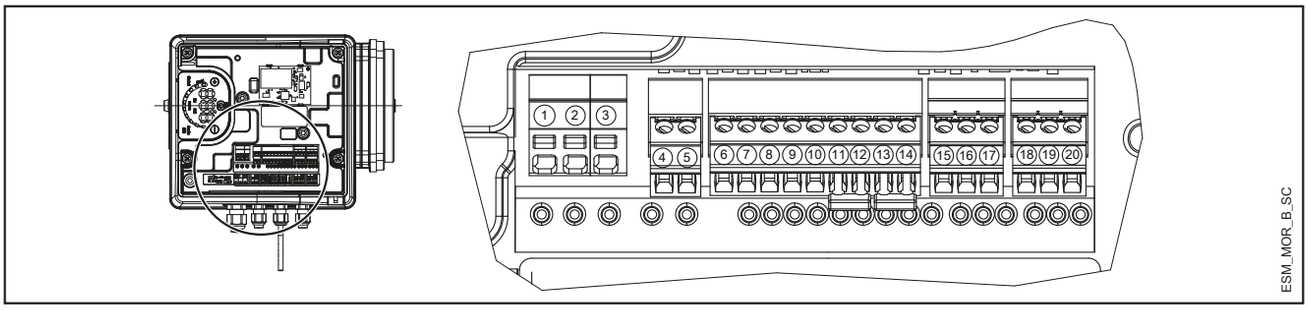
Control to match a system curve

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

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



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



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

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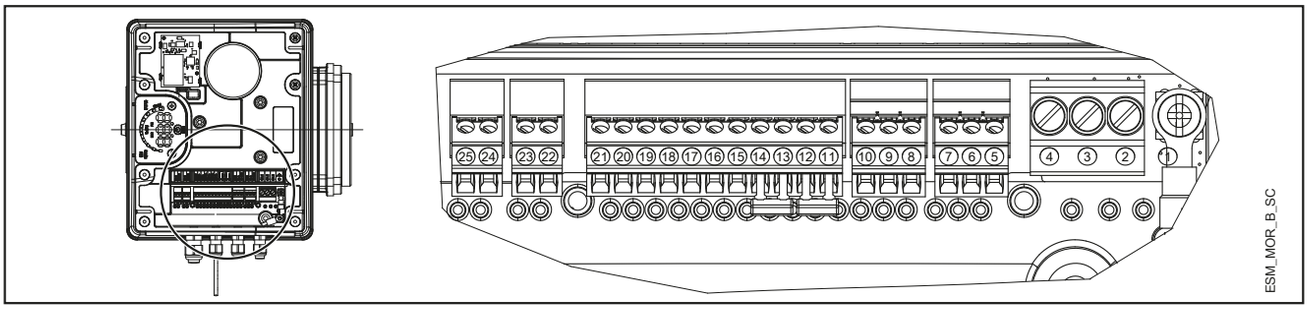
THREE-PHASE TERMINAL BOARD



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

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

PUMP TYPE	MOTOR	Q = DELIVERY										
LNT..E		l/min 0	73,3	146,7	220,0	293,3	366,7	440,0	513,3	586,7	660,0	733,3
Single	PN	m3/h 0	4,4	8,8	13,2	17,6	22,0	26,4	30,8	35,2	39,6	44,0
Operation	kW	H = TOTAL HEAD IN METRES OF COLUMN OF WATER										
32-160/03	0,37	10,3	10,7	8,4	3,9							
32-160/05	0,55	14,3	14,9	12,3	7,6							
32-160/07	0,75	24,2	20,4	14,6	8,9	2,9						
32-160/15	1,5	34,5	33,1	26,1	19,2	12,6						
32-160/22	2,2	38,5	39,6	39,9	32,7	25,0	18,2	10,2				
40-125/03	0,37	8,2	8,2	5,8	3,5							
40-125/05	0,55	13,4	13,4	10,6	7,7	4,9						
40-125/11	1,1	21,9	22,5	18,6	14,9	11,5	8,1					
40-125/15	1,5	25,8	26,7	26,2	22,1	17,9	14,1	10,2				
40-125/22	2,2	34,9	35,8	36,3	31,1	26,3	21,9	17,5	13,2	8,6		
50-125/05	0,55	8,3	8,2	8,0	6,6	5,5	4,5					
50-125/11	1,1	13,4	13,1	12,2	10,9	9,5	8,0	6,4	4,8			
50-125/15	1,5	18,7	18,6	18,0	16,6	14,7	12,9	11,3	9,8	8,3		
50-125/22	2,2	25,8	25,7	25,7	24,8	22,4	20,1	17,9	15,8	13,8	11,9	9,9

lnt-esmT-2pS-en_a_th

ELECTRICAL DATA TABLE

PUMP TYPE	SINGLE-PHASE VERSION				THREE-PHASE VERSION				
LNT..E	MOTOR		e-SM SET		MOTOR		e-SM SET		
Single	P_N	TYPE	* P_1	220-240 V	P_N	TYPE	* P_1	220-240 V	380-460 V
Operation	kW	1x230 V	kW	A	kW	1x230 V	kW	A	A
32-160/03	0,37	ESM90R../103	0,50	2,62-2,29	0,37	ESM90R../303	0,50	2,12-1,96	1,48-1,33
32-160/05	0,55	ESM90R../105	0,73	3,73-3,24	0,55	ESM90R../305	0,76	3,21-2,93	2,13-1,9
32-160/07	0,75	ESM90R../107	0,90	4,43-3,84	0,75	ESM90R../307	0,90	3,91-3,43	2,53-2,29
32-160/15	1,5	ESM90R../115	1,58	7,75-6,61	1,5	ESM90R../315	1,64	6,17-5,66	4,11-3,62
32-160/22	-	-	-	-	2,2	ESM90R../322	2,47	-	5,90-5,20
40-125/03	0,37	ESM90R../103	0,34	1,91-1,67	0,37	ESM90R../303	0,36	1,69-1,57	1,22-1,12
40-125/05	0,55	ESM90R../105	0,62	3,05-2,65	0,55	ESM90R../305	0,65	2,63-2,41	1,78-1,59
40-125/11	1,1	ESM90R../111	1,17	5,7-4,87	1,1	ESM90R../311	1,23	4,72-4,36	3,14-2,77
40-125/15	1,5	ESM90R../115	1,77	8,55-7,36	1,5	ESM90R../315	1,80	6,78-6,16	4,54-4,02
40-125/22	-	-	-	-	2,2	ESM90R../322	2,57	-	5,90-5,20
50-125/05	0,55	ESM90R../105	0,60	3,02-2,63	0,55	ESM90R../305	0,61	2,61-2,39	1,77-1,58
50-125/11	1,1	ESM90R../111	1,00	4,88-4,17	1,1	ESM90R../311	1,02	4,11-3,82	2,74-2,42
50-125/15	1,5	ESM90R../115	1,77	8,17-7,02	1,5	ESM90R../315	1,72	6,52-6,08	4,48-3,97
50-125/22	-	-	-	-	2,2	ESM90R../322	2,44	-	5,86-5,16

* Maximum value in specified range: P1 = input power; I = input current.

lnt-esm-2pS-en_a_te

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

PUMP TYPE	MOTOR	Q = DELIVERY										
LNT..E		l/min 0	133,3	266,7	400,0	533,3	666,7	800,0	933,3	1066,7	1200,0	1320,0
Parallel	PN	m3/h 0	8,0	16,0	24,0	32,0	40,0	48,0	56,0	64,0	72,0	79,2
Operation	kW	H = TOTAL HEAD IN METRES OF COLUMN OF WATER										
32-160/03	0,37	10,6	10,4	8,0	3,0							
32-160/05	0,55	14,4	14,2	11,8	7,5							
32-160/07	0,75	24,1	17,1	13,7	8,6	2,0						
32-160/15	1,5	33,6	31,8	25,0	18,0	10,9						
32-160/22	2,2	38,4	38,4	34,9	30,1	23,3	14,4	3,4				
40-125/03	0,37	8,4	7,3	5,2	2,8							
40-125/05	0,55	13,4	12,1	9,9	7,2	4,1						
40-125/11	1,1	22,0	20,5	17,3	14,1	10,6	6,7					
40-125/15	1,5	25,9	25,4	22,8	19,8	16,5	12,7	8,4				
40-125/22	2,2	34,8	34,6	31,3	28,0	24,3	19,9	15,2	10,3	5,3		
50-125/05	0,55	8,3	8,1	7,1	6,2	5,0	3,6					
50-125/11	1,1	13,4	12,6	11,3	10,1	8,9	7,3	5,5	3,4			
50-125/15	1,5	18,7	18,0	16,3	14,6	12,9	11,2	9,6	7,8	5,8		
50-125/22	2,2	25,8	25,5	23,9	21,2	19,0	17,5	16,0	13,9	11,3	8,5	6,1

lnt-esmT-2pP-en_a_th

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

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

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

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

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

Note. **IES** refers to the efficiency class for frequency converter + motor systems (known as power drive system – PDS) with power between 0.12 kW and 1000 kW and between 100 V and 1000 V, according to the standard **IEC 61800-9-2:2017**.

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

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

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

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

LNE_Smart-mott_en_a_te

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

Note. **IES** refers to the efficiency class for frequency converter + motor systems (known as power drive system – PDS) with power between 0.12 kW and 1000 kW and between 100 V and 1000 V, according to the standard **IEC 61800-9-2:2017**.

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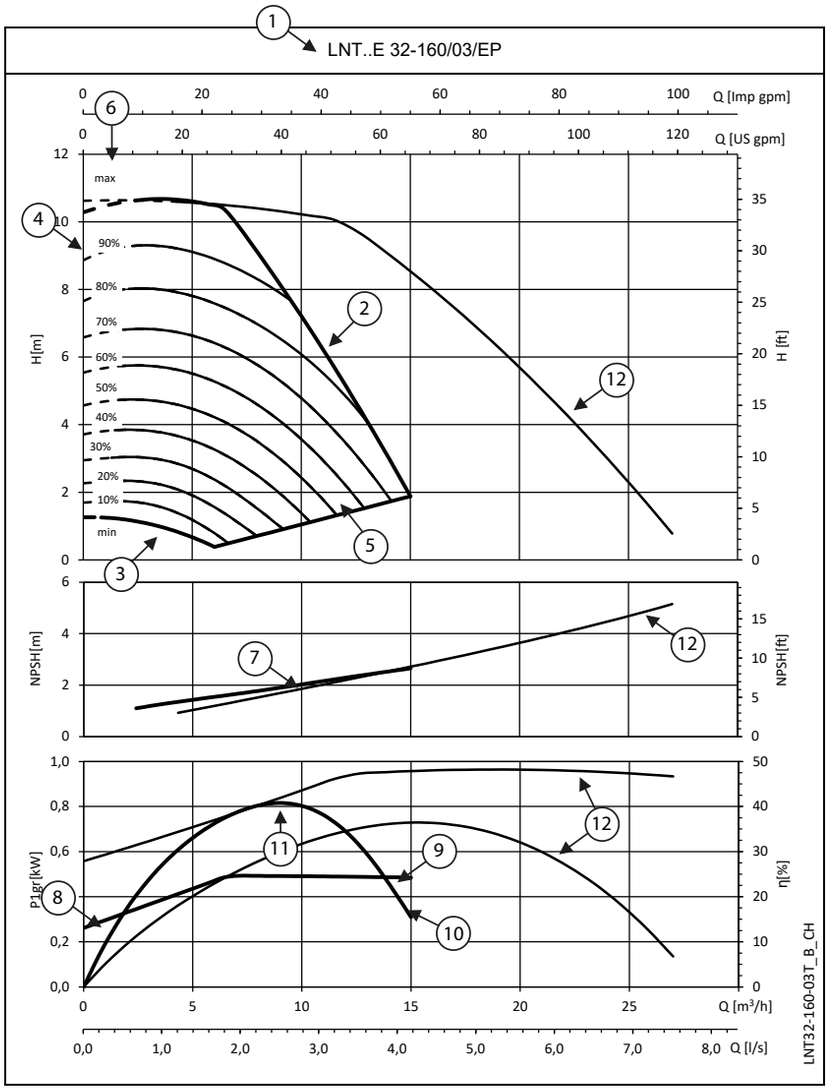
e-LNT..E SERIES
HOW TO READ SMART PUMP SERIES CURVES

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



① **Pump model**

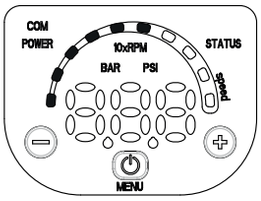
② **Maximum speed curve**

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

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

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

Example: at 60% there will be 6 lit leds



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

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

⑧ **$P1_{gr}$** is the power absorption in kW of pump+motor+drive system working at maximum speed.

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

⑩ **η_{gr}** is the efficiency of the pump+motor+drive system, working at maximum speed.

⑪ **Working point**: it's important to make sure the pump is working at the best working point, the one at highest efficiency.
It's easy to find it: it's the highest point of the hp pump efficiency curve; once you found it, you can learn also flow values from x-axis called Q and head values from y-axis called H which allow the system to work at the best working point.

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

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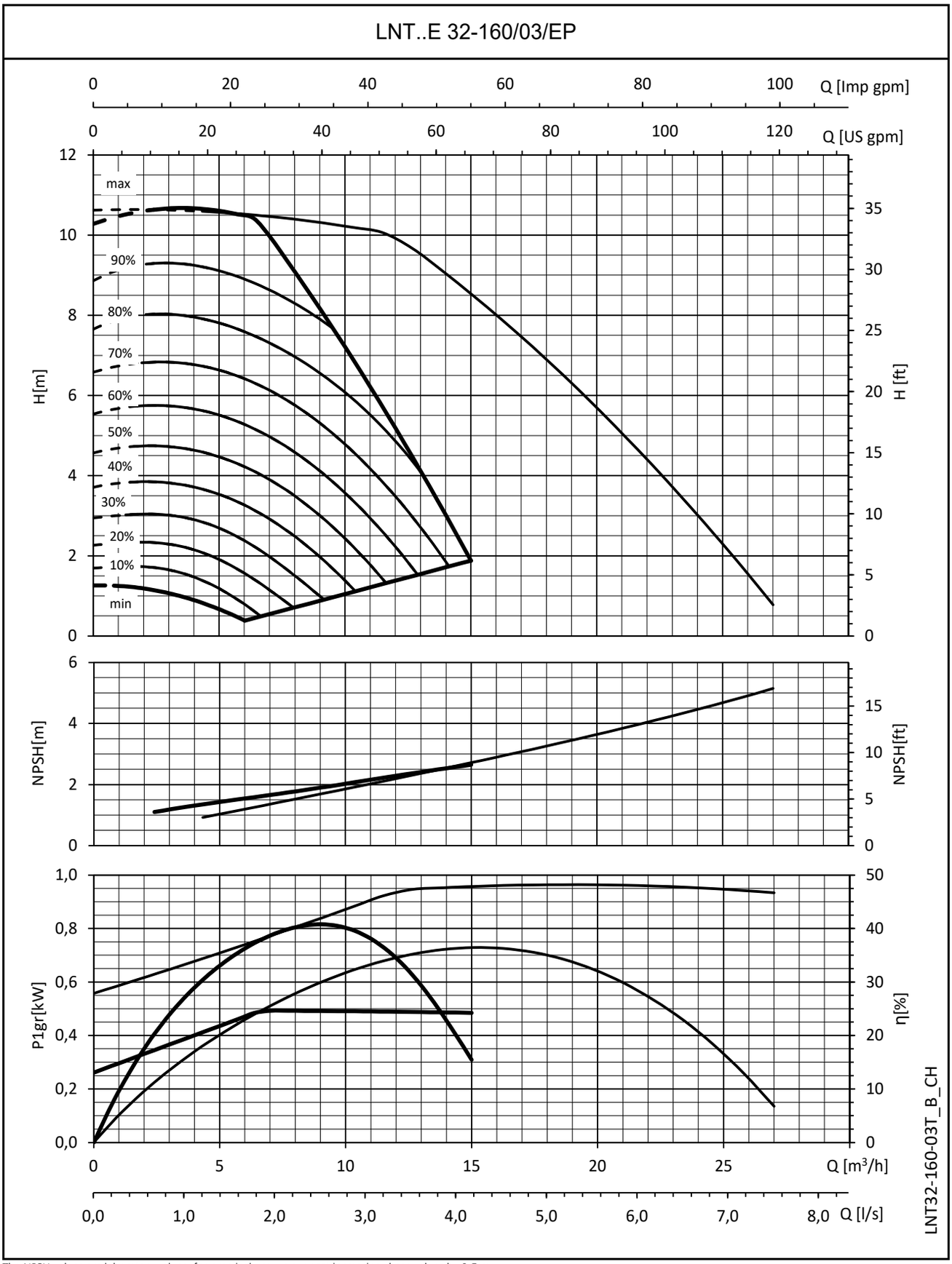
e-LNT..E SERIES
OPERATING CHARACTERISTICS



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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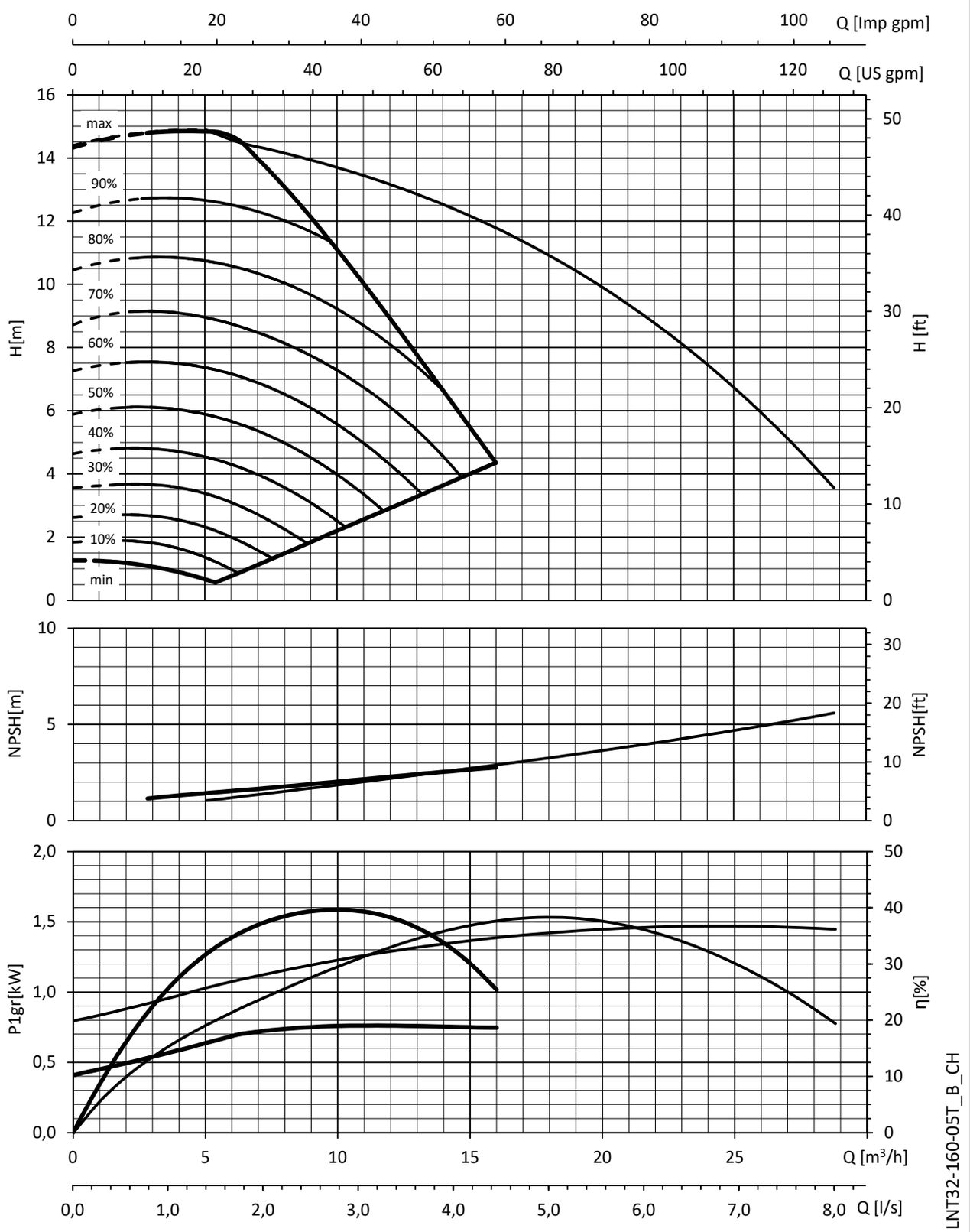
e-LNT..E SERIES
OPERATING CHARACTERISTICS

LNT..E 32-160/05/EP



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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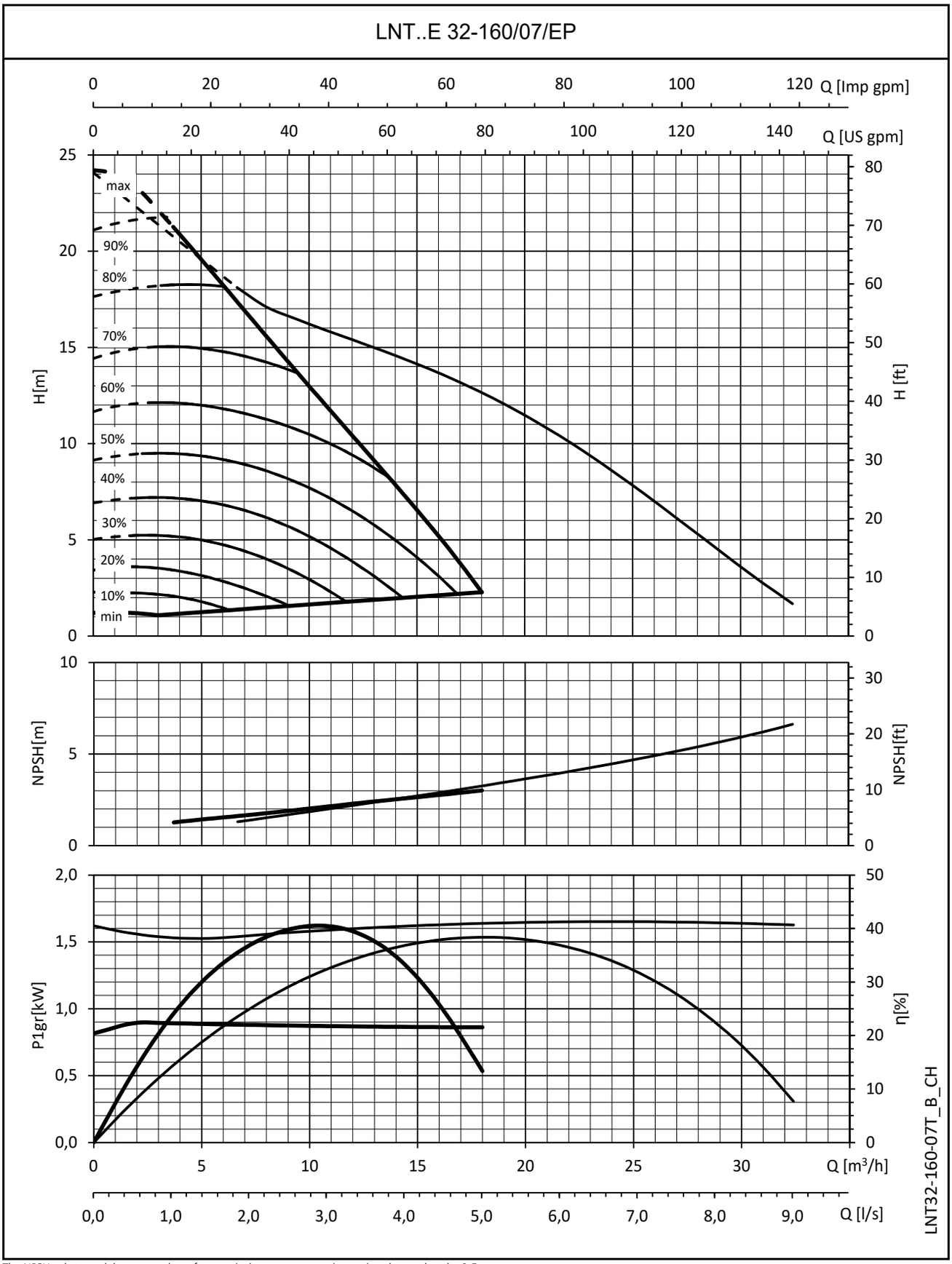
e-LNT..E SERIES
OPERATING CHARACTERISTICS



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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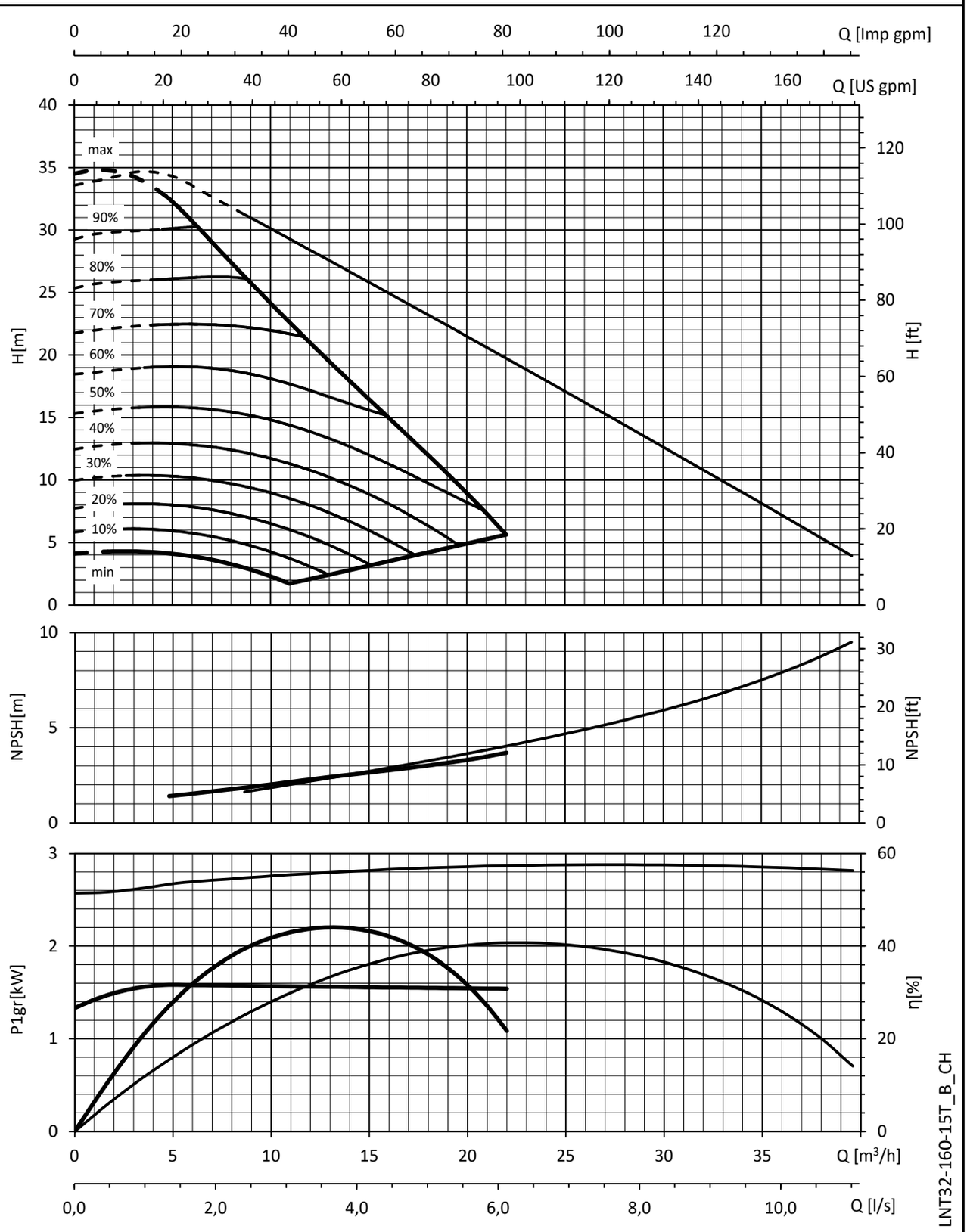
e-LNT..E SERIES
OPERATING CHARACTERISTICS

LNT..E 32-160/15/EP



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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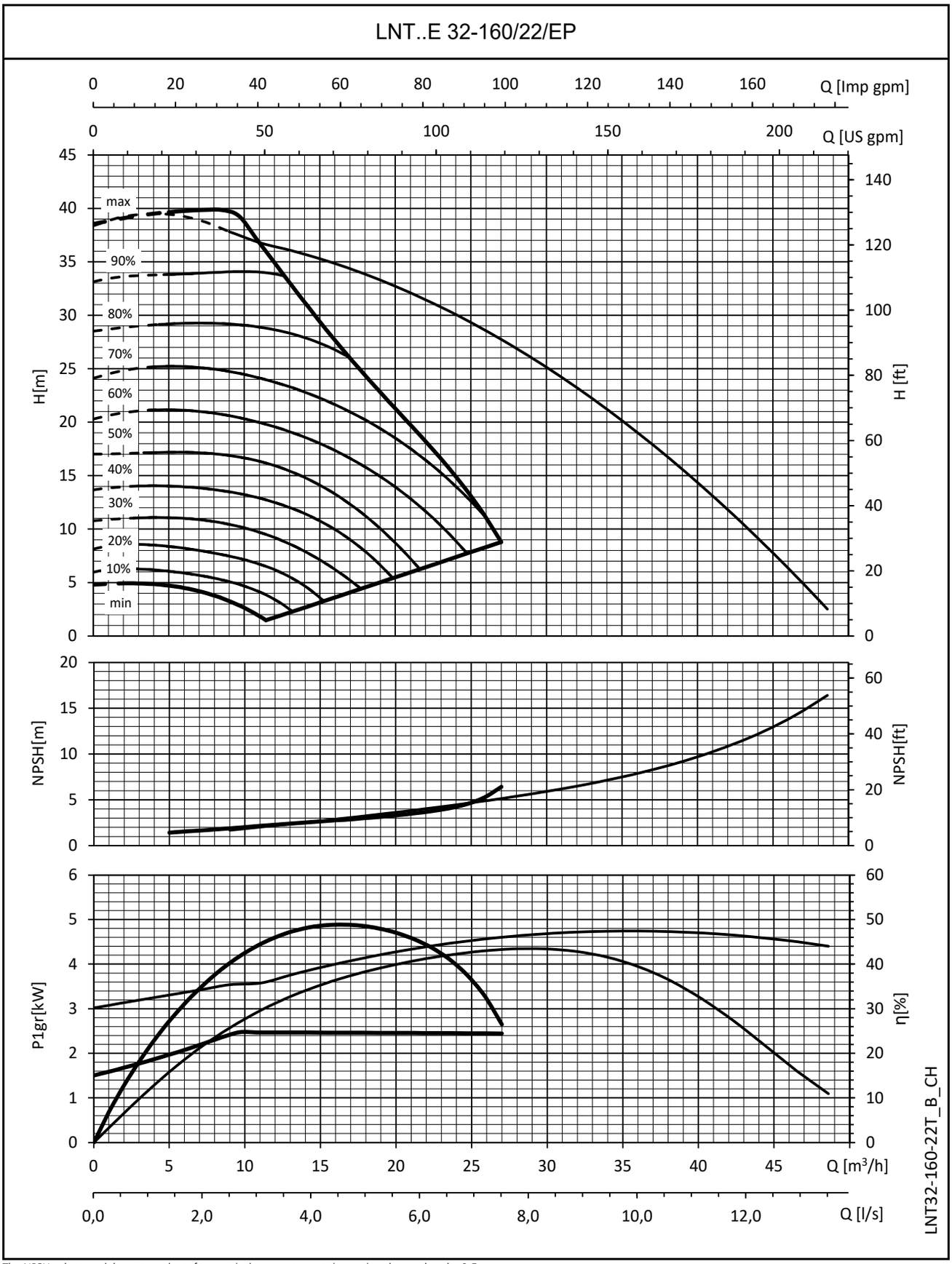
a xylem brand

e-LNT..E SERIES
OPERATING CHARACTERISTICS



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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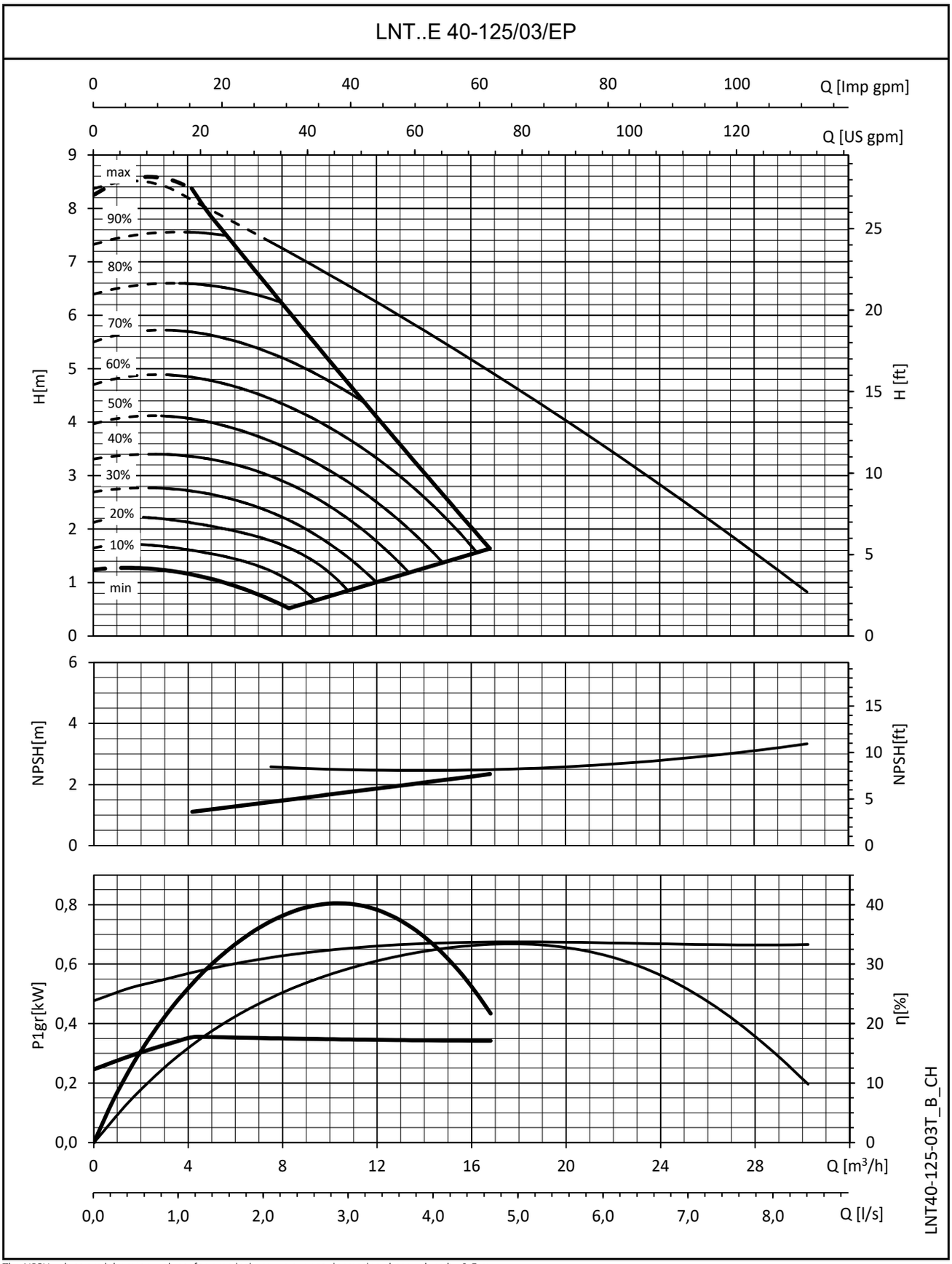
e-LNT..E SERIES
OPERATING CHARACTERISTICS



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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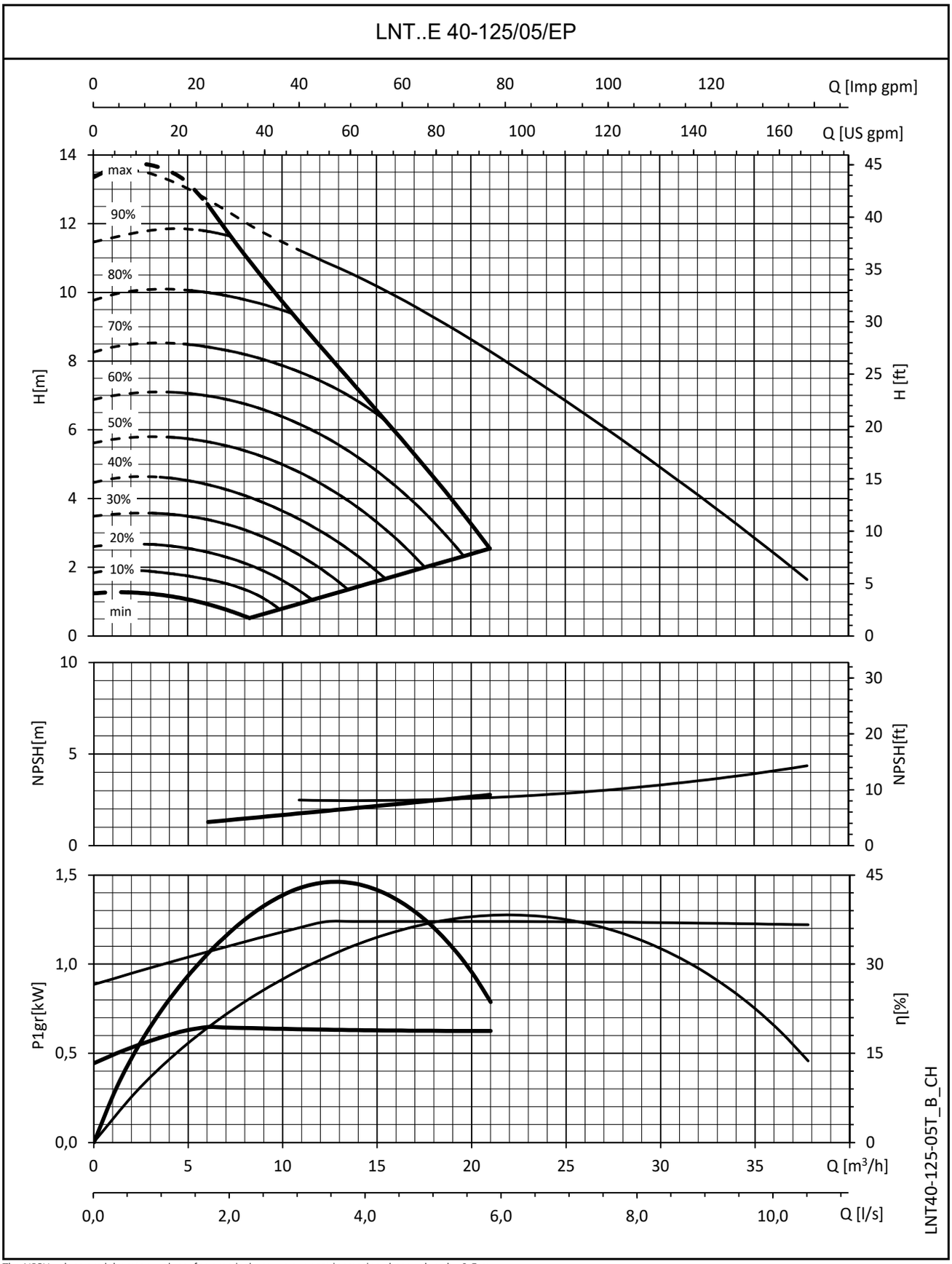
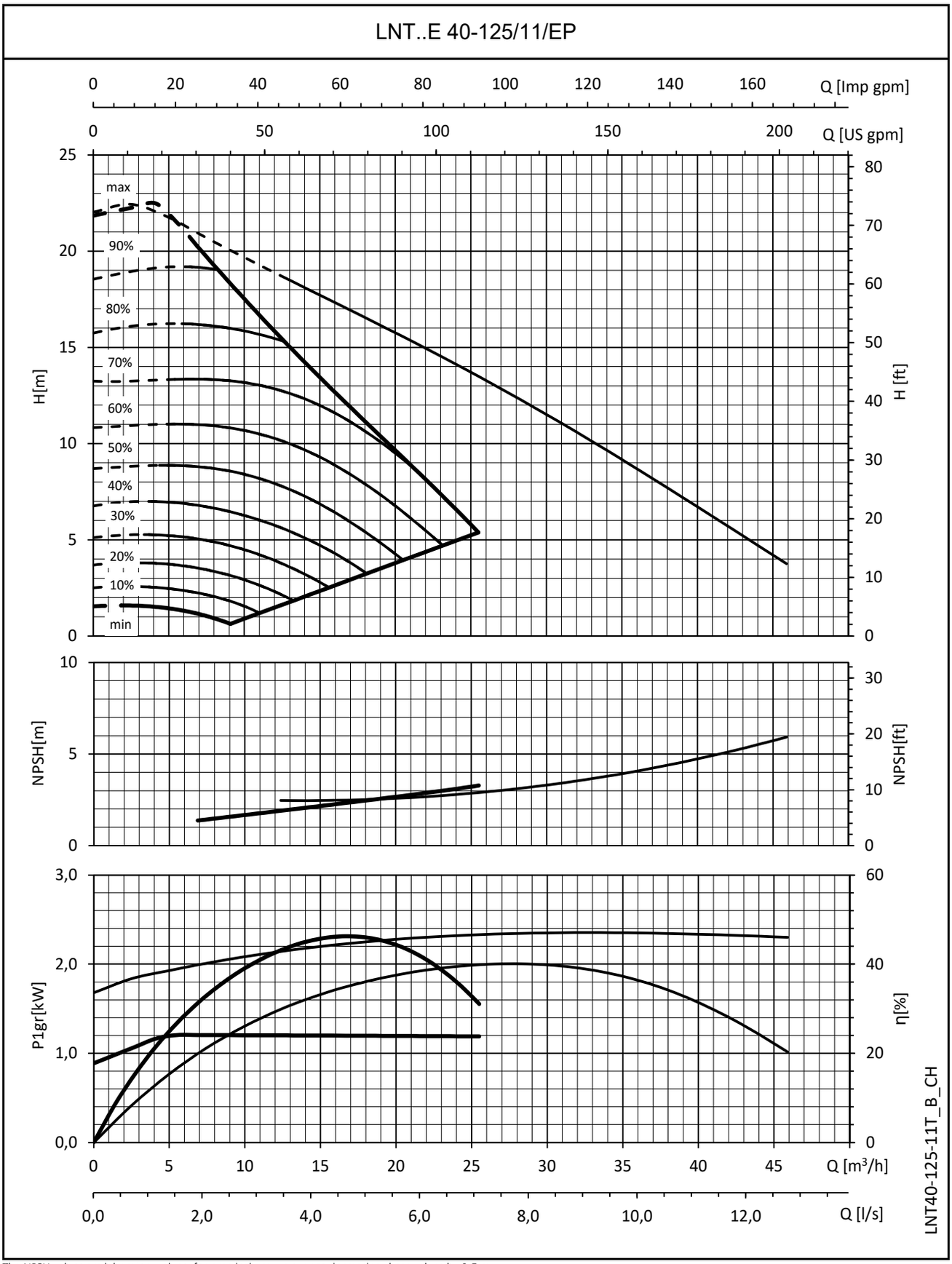
e-LNT..E SERIES
OPERATING CHARACTERISTICS



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

LOWARA
a xylem brand

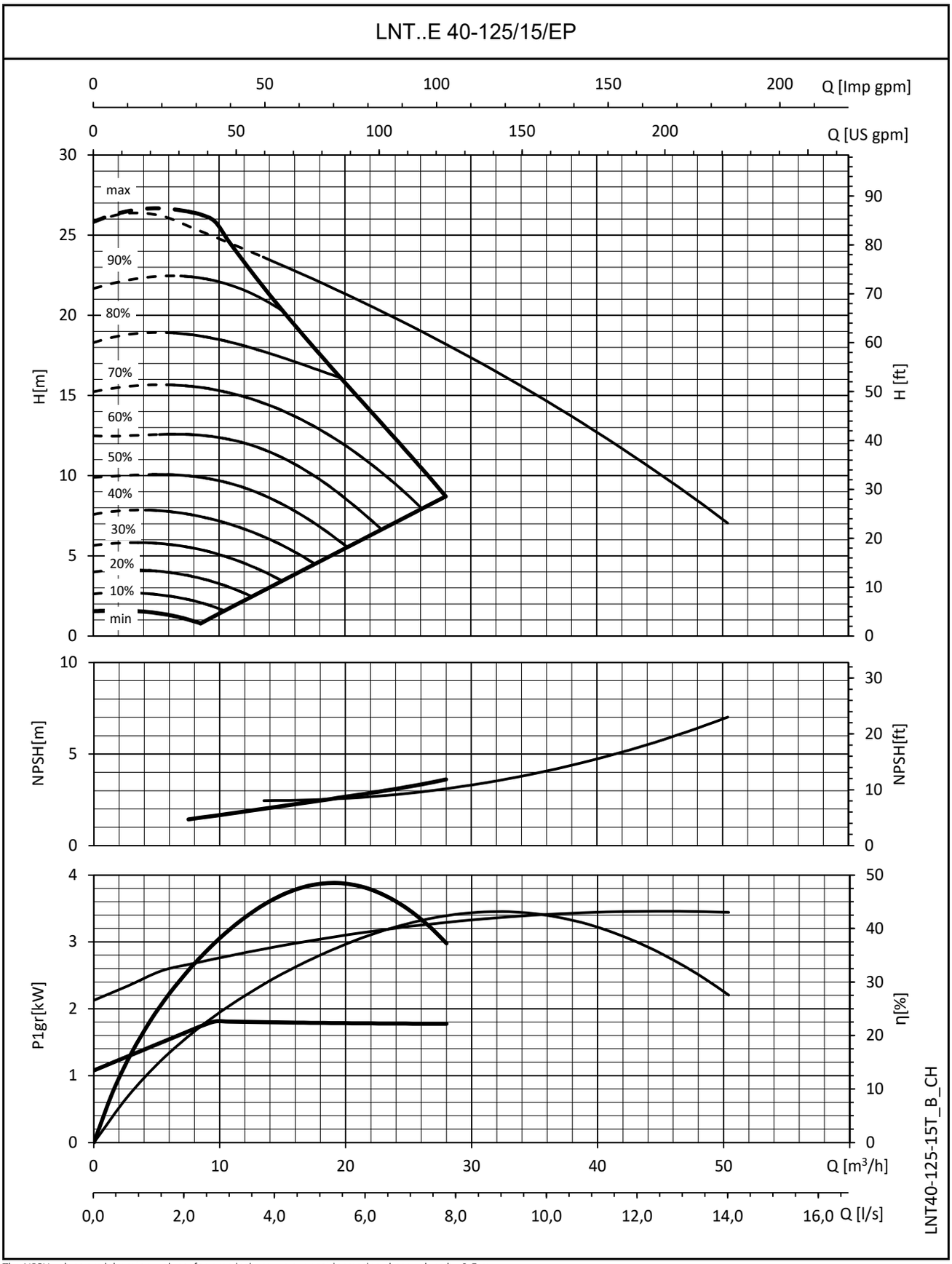
e-LNT..E SERIES
OPERATING CHARACTERISTICS



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

LOWARA
a xylem brand

e-LNT..E SERIES
OPERATING CHARACTERISTICS



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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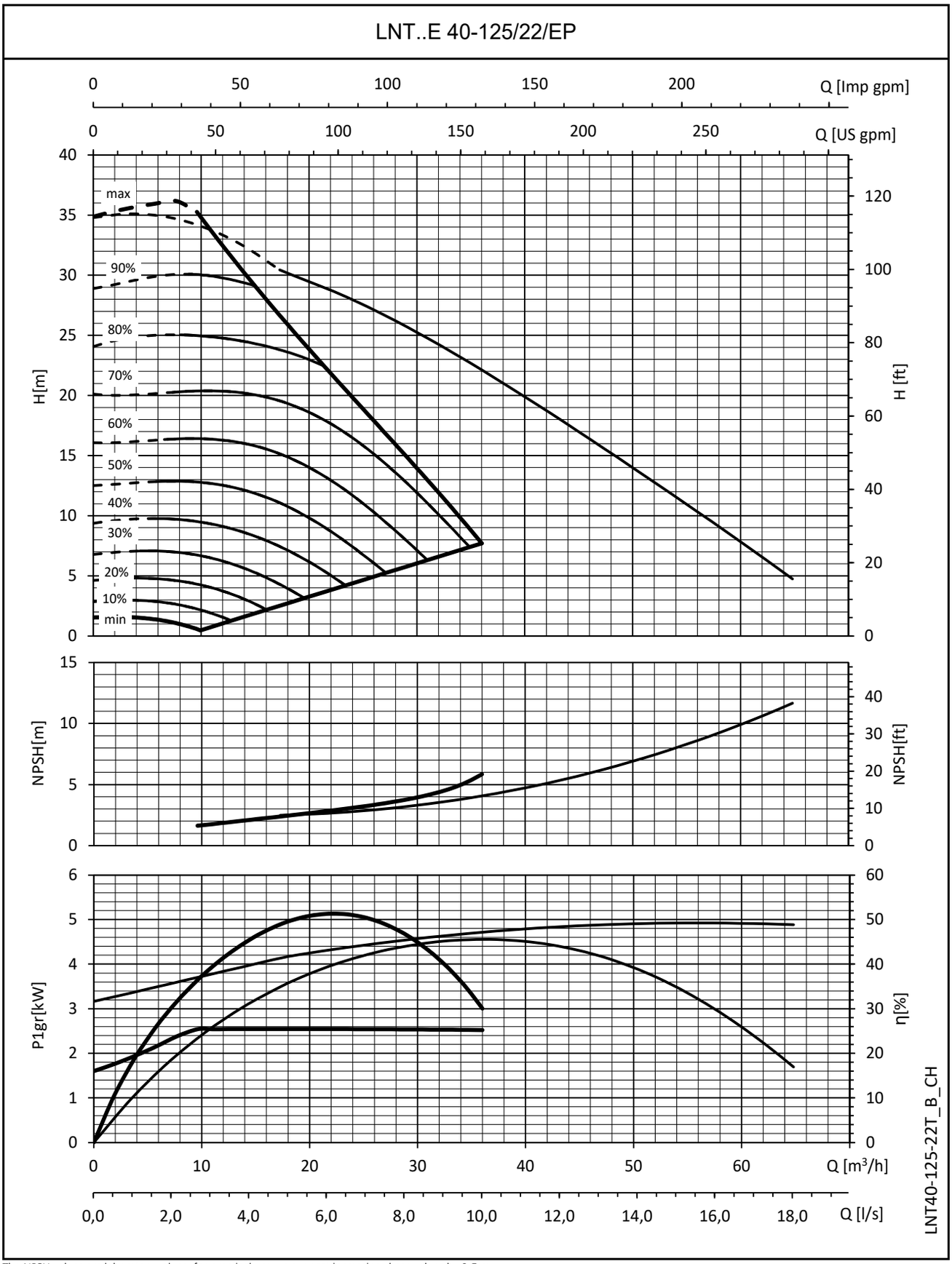
e-LNT..E SERIES
OPERATING CHARACTERISTICS



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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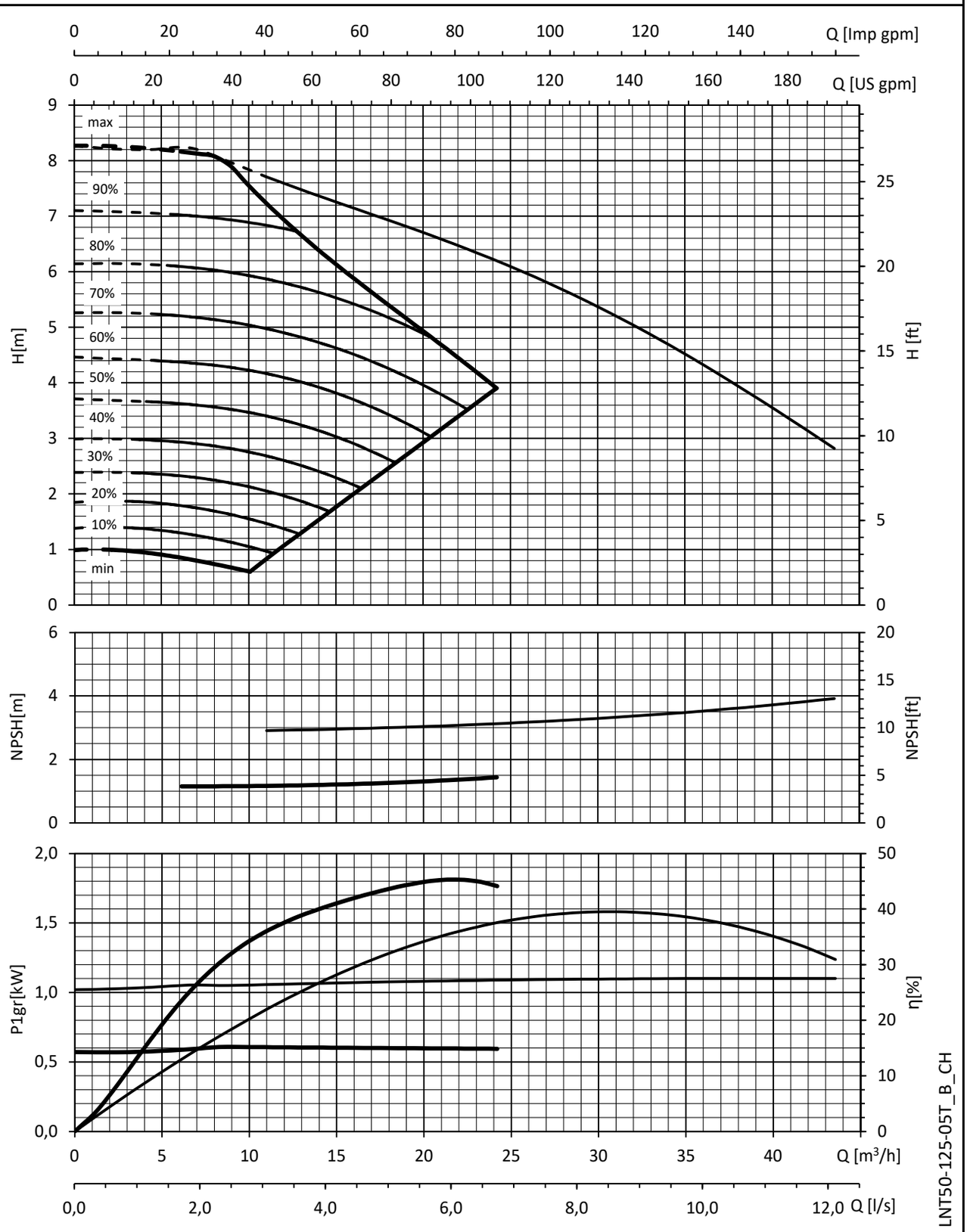
e-LNT..E SERIES
OPERATING CHARACTERISTICS

LNT..E 50-125/05/EP



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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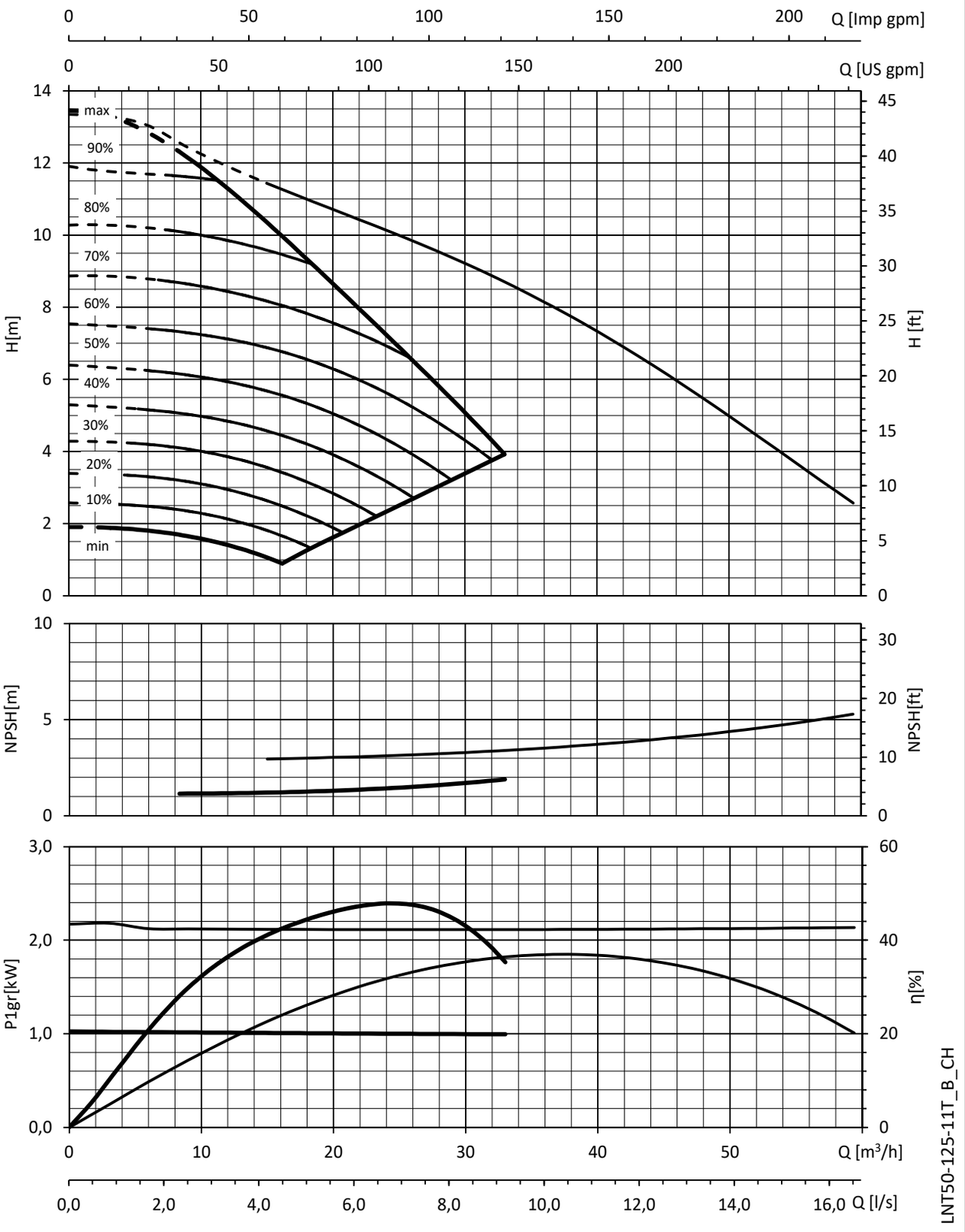
a xylem brand

e-LNT..E SERIES
OPERATING CHARACTERISTICS

LNT..E 50-125/11/EP



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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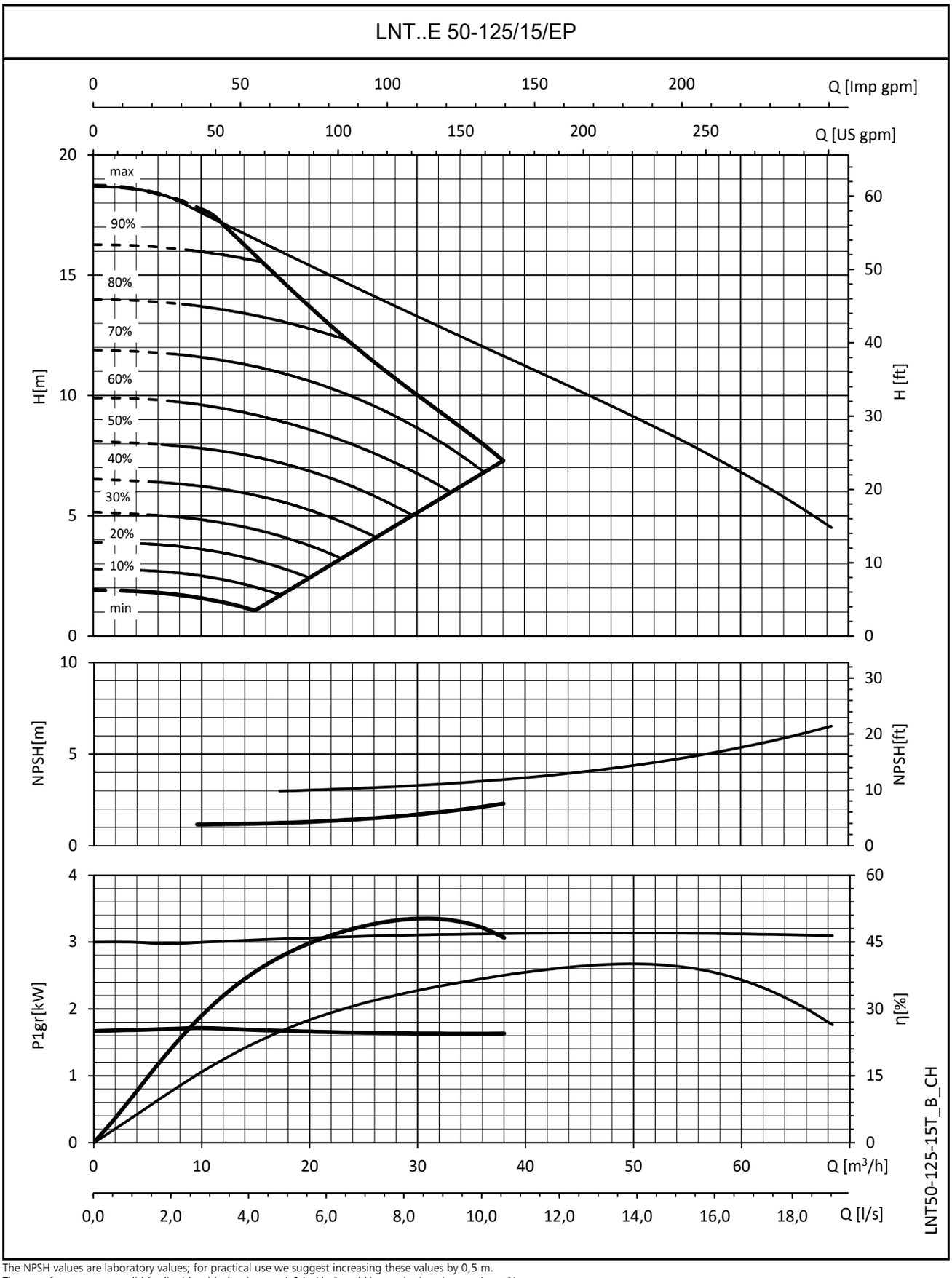
a xylem brand

e-LNT..E SERIES
OPERATING CHARACTERISTICS



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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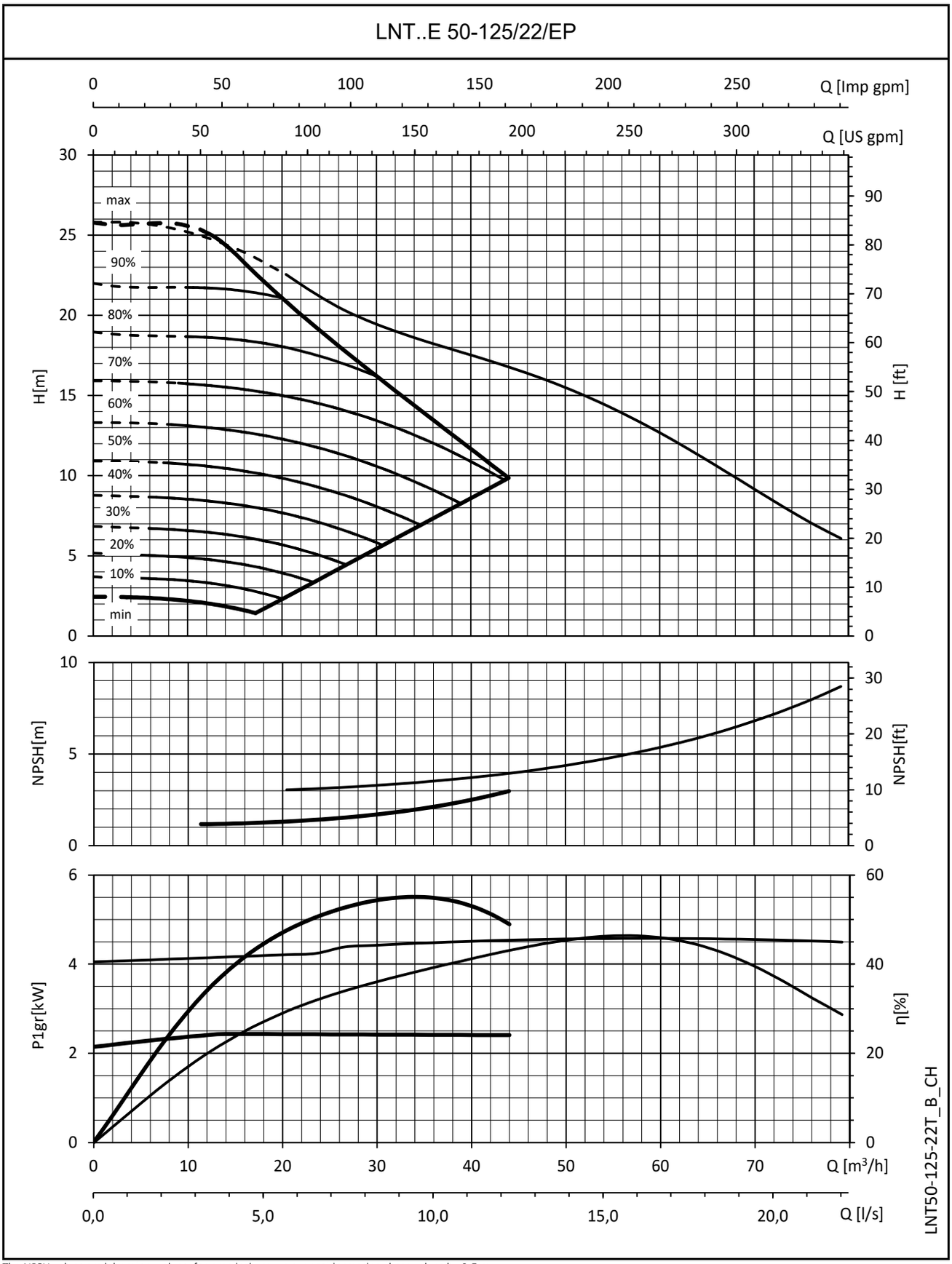
e-LNT..E SERIES
OPERATING CHARACTERISTICS



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 ρ = 1,0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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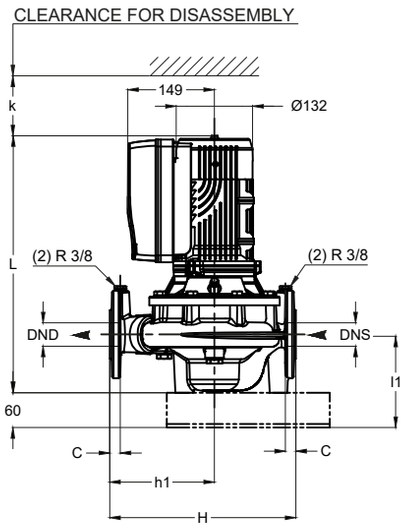
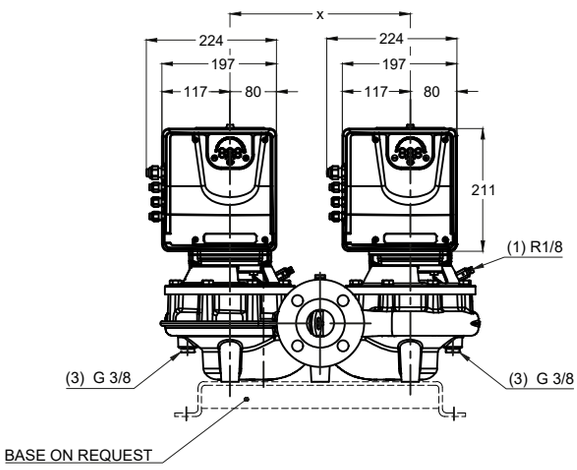
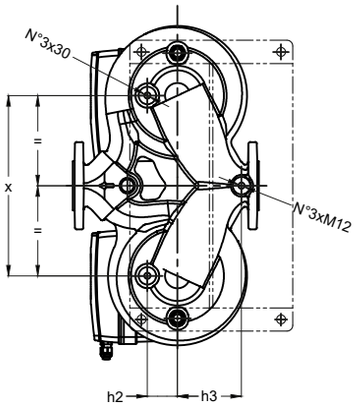
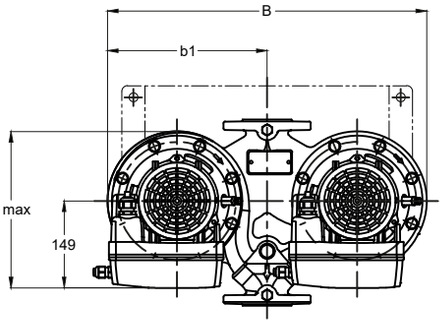
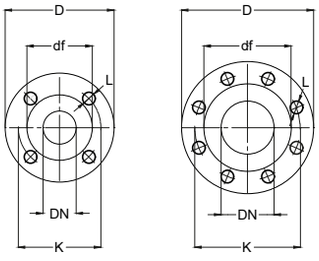
e-LNTEE SERIES - SINGLE-PHASE VERSION
DIMENSIONS AND WEIGHTS











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

FLANGE

EN1092-2, PN 16 *)					
DN	D	K	C	df	L
32	140	100	18	76	4x19
40	150	110	18	84	4x19
50	165	125	20	99	4x19

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

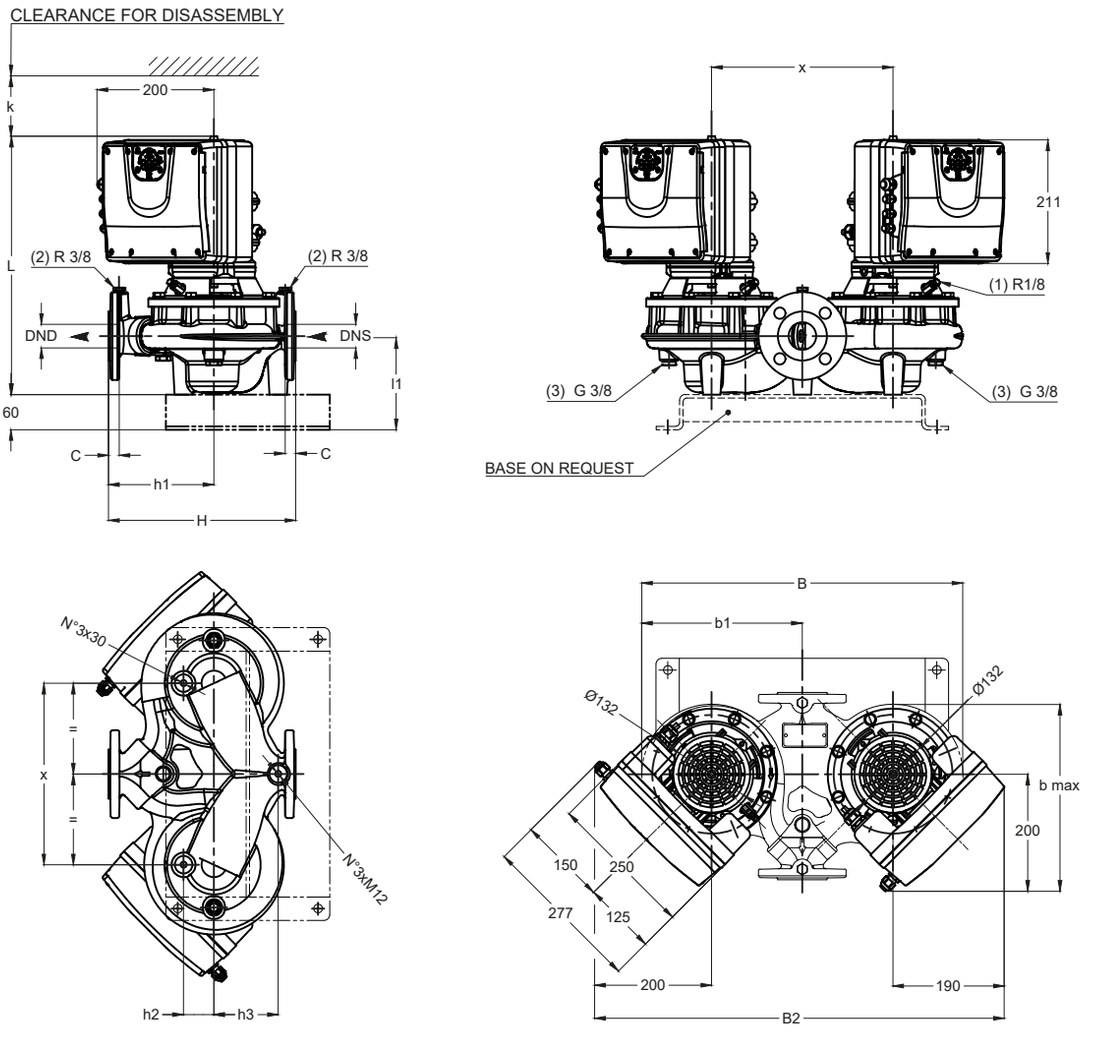
A0022ESM-EN_A_DD

PUMP TYPE	VERSION	MOTOR		DIMENSIONS (mm)								b	B	H	L	k	WEIGHT
LNTEE (e-SM)		kW	Size	DND	DNS	b1	h1	h2	h3	l1	x	max					kg
32-160/03/EP02	SINGLE-PHASE	0,37	90	32	32	257	180	40	110	90	275	270	514	320	431,4	260	46
32-160/05/EP02		0,55	90	32	32	257	180	40	110	90	275	270	514	320	431,4	260	46
32-160/07/EP02		0,75	90	32	32	257	180	40	110	90	275	270	514	320	431,4	260	46
32-160/15/EP02		1,5	90	32	32	257	180	40	110	90	275	270	514	320	431,4	260	48
40-125/03/EP02		0,37	90	40	40	274,5	180	52	110	100	310	269	549	320	441,4	260	49
40-125/05/EP02		0,55	90	40	40	274,5	180	52	110	100	310	269	549	320	441,4	260	49
40-125/11/EP02		1,1	90	40	40	274,5	180	52	110	100	310	269	549	320	441,4	260	52
40-125/15/EP02		1,5	90	40	40	274,5	180	52	110	100	310	269	549	320	441,4	260	52
50-125/05/EP02		0,55	90	50	50	275	190	57	120	116	310	267	555	340	457,4	260	49
50-125/11/EP02		1,1	90	50	50	275	190	57	120	116	310	267	555	340	457,4	260	62
50-125/15/EP02		1,5	90	50	50	275	190	57	120	116	310	267	555	340	457,4	260	62

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

LNTEE-32-50esm-en_a_td

e-LNTEE SERIES - THREE-PHASE VERSION
DIMENSIONS AND WEIGHTS



(1) AIR VALVE

(2) PRESSURE GAUGE CONNECTOR

(3) DRAIN

FLANGE

EN1092-2, PN 16 *)					
DN	D	K	C	df	L
32	140	100	18	76	4x19
40	150	110	18	84	4x19
50	165	125	20	99	4x19

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

A0022ESM-T-EN_A_DD

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

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

LNTEE-32-50esmT-en_a_td

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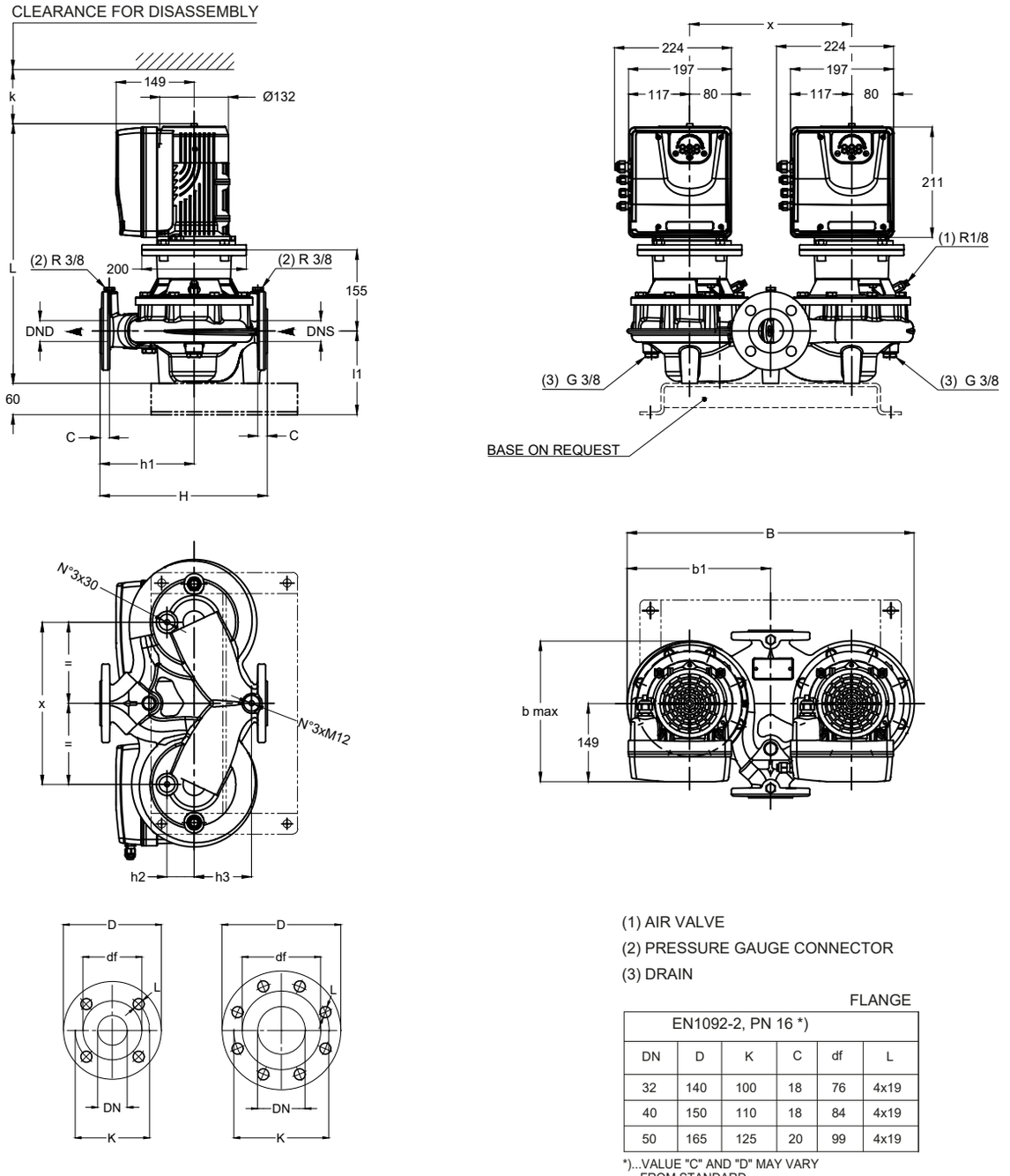
a xylem brand

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



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

FLANGE

EN1092-2, PN 16 *)					
DN	D	K	C	df	L
32	140	100	18	76	4x19
40	150	110	18	84	4x19
50	165	125	20	99	4x19

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

A0024ESM-EN_A_DD

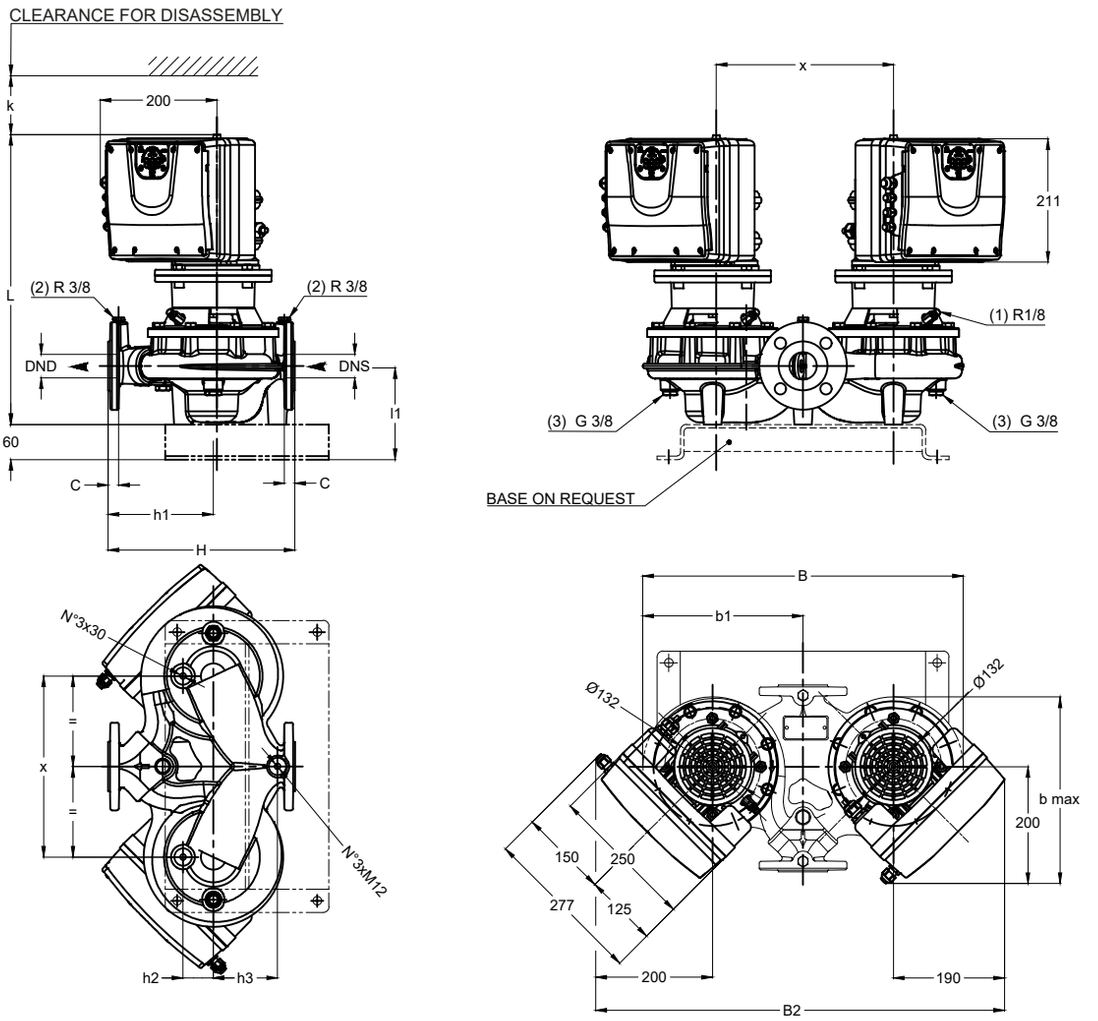
PUMP TYPE	VERSION	MOTOR		DIMENSIONS (mm)								b	B	H	L	x	WEIGHT
LNTSE (e-SM)		kW	Size	DND	DNS	b1	h1	h2	h3	l1	x	max					kg
32-160/03/EP02	SINGLE-PHASE	0,37	90	32	32	257,0	180	40	110	90	275	270	514	320	486,4	260	52
32-160/05/EP02		0,55	90	32	32	257,0	180	40	110	90	275	270	514	320	486,4	260	52
32-160/07/EP02		0,75	90	32	32	257,0	180	40	110	90	275	270	514	320	486,4	260	52
32-160/15/EP02		1,5	90	32	32	257,0	180	40	110	90	275	270	514	320	486,4	260	56
40-125/03/EP02		0,37	90	40	40	274,5	180	52	110	100	310	269	549	320	496,4	260	56
40-125/05/EP02		0,55	90	40	40	274,5	180	52	110	100	310	269	549	320	496,4	260	56
40-125/11/EP02		1,1	90	40	40	274,5	180	52	110	100	310	269	549	320	496,4	260	59
40-125/15/EP02		1,5	90	40	40	274,5	180	52	110	100	310	269	549	320	496,4	260	59
50-125/05/EP02		0,55	90	50	50	275,0	190	57	120	116	310	267	555	340	512,4	260	66
50-125/11/EP02		1,1	90	50	50	275,0	190	57	120	116	310	267	555	340	512,4	260	69
50-125/15/EP02		1,5	90	50	50	275,0	190	57	120	116	310	267	555	340	512,4	260	69

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

LNTSE-32-50esm-en_a_td

LOWARA
a xylem brand

e-LNTSE SERIES - THREE-PHASE VERSION
DIMENSIONS AND WEIGHTS



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

FLANGE

EN1092-2, PN 16 *)					
DN	D	K	C	df	L
32	140	100	18	76	4x19
40	150	110	18	84	4x19
50	165	125	20	99	4x19

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

A0024ESM-T-EN_A_DD

PUMP TYPE	VERSION	MOTOR		DIMENSIONS (mm)								b	B	B2	H	L	x	WEIGHT
LNTSE (e-SM)		kW	Size	DND	DNS	b1	h1	h2	h3	l1	x	max						kg
32-160/03/EP04-05	THREE-PHASE	0,37	90	32	32	257	180	40	110	90	275	319	514	665	320	486,4	260	63
32-160/05/EP04-05		0,55	90	32	32	257	180	40	110	90	275	319	514	665	320	486,4	260	63
32-160/07/EP04-05		0,75	90	32	32	257	180	40	110	90	275	319	514	665	320	486,4	260	63
32-160/15/EP04-05		1,5	90	32	32	257	180	40	110	90	275	319	514	665	320	486,4	260	67
32-160/22/EP04		2,2	90	32	32	257	180	40	110	90	275	319	514	665	320	486,4	260	70
40-125/03/EP04-05		0,37	90	40	40	274,5	180	52	110	100	310	319	549	700	320	496,4	260	68
40-125/05/EP04-05		0,55	90	40	40	274,5	180	52	110	100	310	319	549	700	320	496,4	260	68
40-125/11/EP04-05		1,1	90	40	40	274,5	180	52	110	100	310	319	549	700	320	496,4	260	70
40-125/15/EP04-05		1,5	90	40	40	274,5	180	52	110	100	310	319	549	700	320	496,4	260	70
40-125/22/EP04		2,2	90	40	40	274,5	180	52	110	100	310	319	549	700	320	496,4	260	74
50-125/05/EP04-05		0,55	90	50	50	275	190	57	120	116	310	322	555	700	340	512,4	260	77
50-125/11/EP04-05		1,1	90	50	50	275	190	57	120	116	310	322	555	700	340	512,4	260	80
50-125/15/EP04-05		1,5	90	50	50	275	190	57	120	116	310	322	555	700	340	512,4	260	80
50-125/22/EP04		2,2	90	50	50	275	190	57	120	116	310	322	555	700	340	512,4	260	83

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

LNTSE-32-50esm-en_a_td

LOWARA
a xylem brand

e-LNT..X, e-LNT..K
VERSION WITH
hydrovar X

LOWARA
a xylem brand

e-LNT..X, e-LNT..K SERIES
e-LNT WITH hydrovar X

Background and context

Xylem is a leading global water technology company committed to solving critical water and infrastructure challenges with innovation.
By providing smart and cutting-edge technology, we are reducing energy consumption to minimum possible levels and increasing sustainability.
There is one thing that Xylem shares with the greatest engineering innovators, that's the continuous investment into new products that reflects into outstanding solutions.
You can find all these features in **hydrovar X**, the answer to innovation, sustainability and easiness all-in-one.

hydrovar X also brings the best energy efficiency performances with its frequency converter coupled with the ultimate synchronous motor, manufactured by Xylem integrating decades of expertise and know-how in pumping solutions.

It's the right combination of motors, variable speed drive and pump ensuring great performance, maximum savings and a rapid return on investment.

Sustainability

hydrovar X brings green technology solution by providing best-in-class performance achievement
Rare earths? No thanks! Xylem accepted the challenge to fight price, availability and environmental concerns with a smarter technology that provides the best-in-class performance with a green heart.

Ease of use and commissioning

The built-in application software makes it the easiest drive to commission, program and operate, enabling virtually any configuration of pumps. Backward compatibility assures the **hydrovar X** will work seamlessly with existing systems.

Pump solution

Integrated pump functions provide protection for the pump solution, and improve the quality of energy from the grid. All of this means terrific energy savings from a compact, easy-to-use solution suited for nearly any application.

Application sectors

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

hydrovar X (e-LNE..K)
hydrovar X+ (e-LNE..X)

- IES2 efficiency level (IEC 61800-9-2:2017)
- Three-phase power supply:
  - from 3 kW to 22 kW: 380-480 V +/- 10%, 50/60 Hz
  - from 3 kW to 11 kW: 200-240 V +/- 10%, 50/60 Hz (on request)
- Power up to 22 kW
- Protection class IP 55
- Overload and locked rotor protection with automatic reset incorporated

Pump

- Flow rate:
  - up to 318 m^3/h (one pump running)
  - up to 498 m^3/h (two pumps running)
- Head: up to 88 m
- Temperature of pumped liquid: up to +140°C
- Maximum operating pressure 16 bar (PN 16)
- The hydraulic performances meet the tolerances specified in ISO 9906:2012

Motor

- IE5 efficiency level (IEC TS 60034-30-2:2016)
- Synchronous electric motor with permanent magnet assisted reluctance technology, closed structure, air-cooled (TEFC)
- Insulation class 155 (F)
- Environment temperature: -20° C to +50° C with no performance derating

Regulations (EU) 2019/1781 e 2021/34, Annex I – point 4 (Product information)

The requirements shall not apply to these variable speed drives, as they are integrated to motors that aren't covered by the same regulations.

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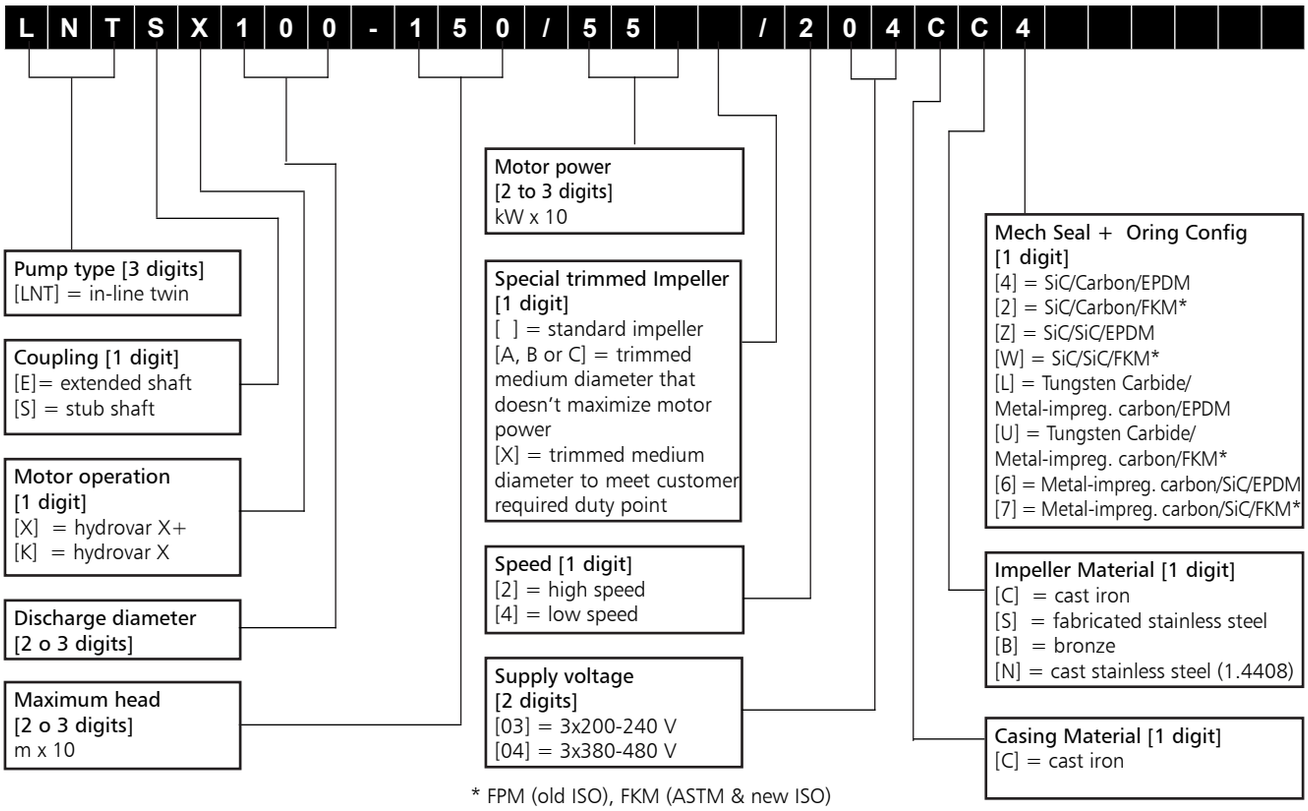
e-LNT..X, e-LNT..K SERIES
IDENTIFICATION CODE



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

LIST OF MODELS

SIZE LNT..X, LNT..K	kW	VERSION LNTE..	VERSION LNTS..
32-480	3	•	•
40-420	3	•	•
40-470	4	•	•
40-600	5,5	-	•
40-720	7,5	•	•
40-810	11	•	•
50-320	3	•	•
50-390	4	•	•
50-490	5,5	•	•
50-590	7,5	•	•
50-720	11	•	•
50-800	15	-	•
50-900	18,5	-	•
65-190	3	•	•
65-300	4	-	•
65-340	5,5	•	•
65-360	7,5	•	•
65-490	11	•	•
65-610	15	-	•
65-770	18,5	•	•

• = Available

LNTX_models-en_a_sc

SIZE LNT..X, LNT..K	kW	VERSION LNTE..	VERSION LNTS..
80-210	4	•	•
80-320	5,5	•	•
80-410	7,5	•	•
80-500	11	•	•
80-520	15	•	•
80-570	18,5	•	•
80-630	22	•	•
100-110	4	•	•
100-150	5,5	•	•
100-280	11	•	•
100-370	15	•	•
100-400	18,5	•	•
100-430	22	•	•
125-100	3	-	•
125-140	4	-	•
125-180	5,5	-	•
125-270	7,5	-	•
125-340	11	-	•
150-130	5,5	-	•
150-170	7,5	-	•
150-210	11	-	•
150-270	11	-	•

LEGEND

LNTE : Extended shaft (twin version).
LNTS : Stub shaft (twin version).

e-LNT..X, e-LNT..K SERIES
e-LNT WITH hydrovar X

hydrovar X offers two different display configurations: LED display and graphical colored display, like in the below pictures:

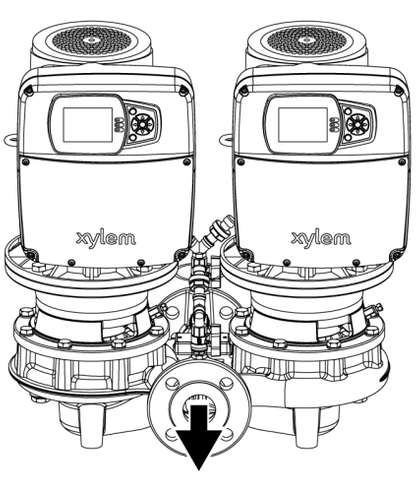
hydrovar X (e-LNT..K)

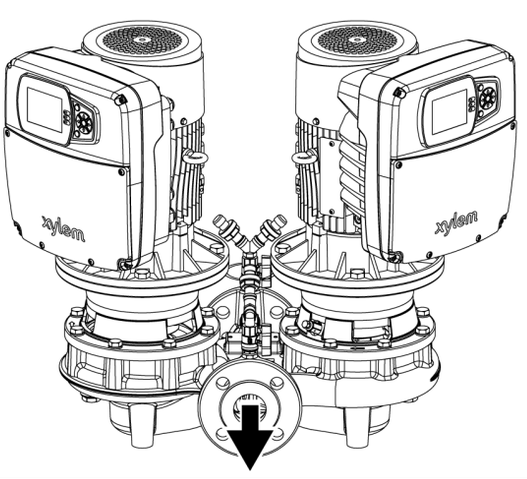
hydrovar X+ (e-LNT..X)

DRIVE POSITION

In each position the air valve must be rotated 90° clockwise with respect to the display of the drive.

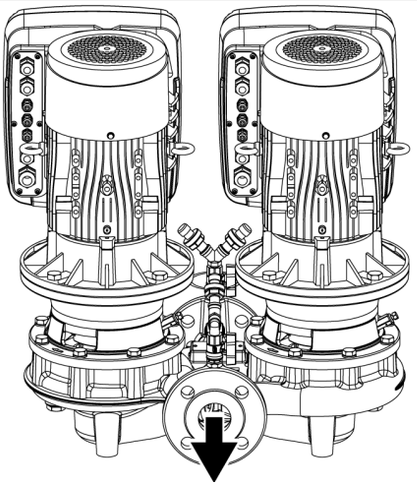
STANDARD POSITION

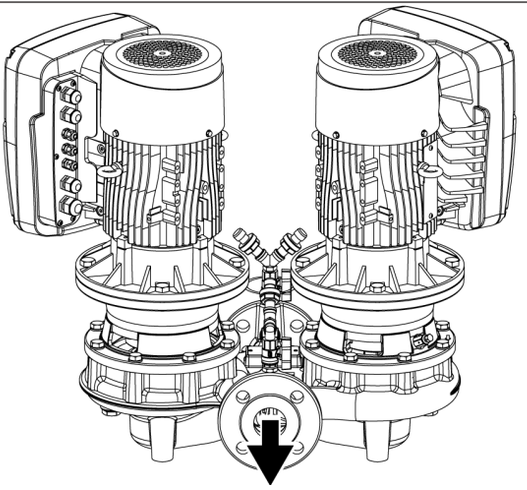




PUMP TYPE LNT..X, LNT..K
32-480
40-600
50-490
50-590
65-610

POSSIBLE POSITION





PUMP TYPE LNT..X, LNT..K
32-480
40-600
50-490
50-590
65-610

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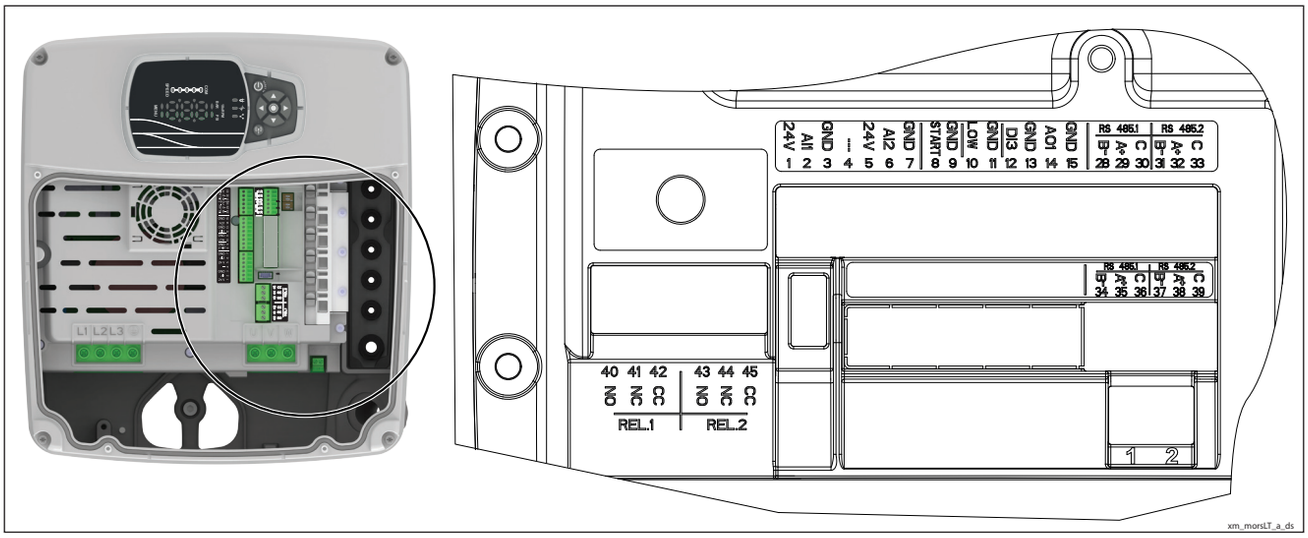
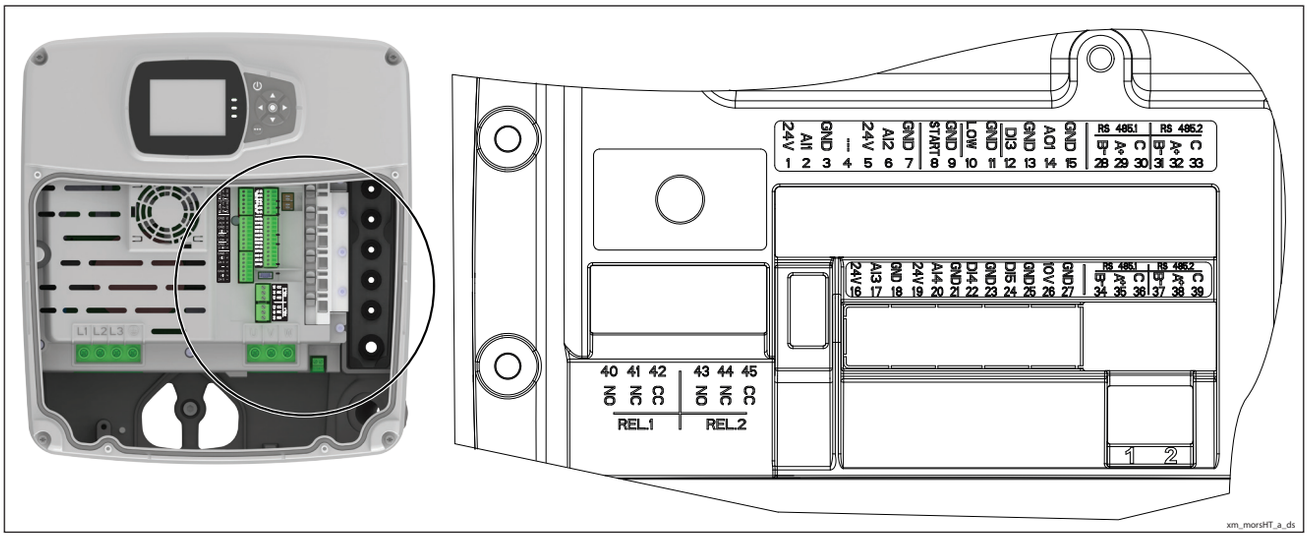
e-LNT..K SERIES (hydrovar X)
TERMINAL BOARD



REF.	ITEM	DESCRIPTION	DEFAULT
1	Analog Input 1	Power supply +24 VDC, max. 60mA (total, terminals 1 + 5)	Pressure Sensor 1
2		Configurable Analog Input 1	
3		Electronic GND	
4	Not used	Internal use - Do not connect	
5	Analog Input 2	Power supply +24 VDC, max. 60mA (total, terminals 1 + 5)	Not used
6		Configurable Analog Input 2	
7		Electronic GND	
8	External Start/Stop	Start/Stop digital input, +24 VDC internal pull-up, 6mA contact current	-
9		Electronic GND	
10	External Lack of Water	Low water digital input, +24 VDC internal pull-up, 6mA contact current	-
11		Electronic GND	
12	Digital Input 3	Configurable Digital Input 3, +24 VDC internal pull-up, 6mA contact current	Solo Run
13		Electronic GND	
14	Analog Output	Configurable Analog Output	Motor Speed
15		Electronic GND	
28	Communication bus 1	RS485 port 1: RS485-1B N (-)	Multipump
29		RS485 port 1: RS485-1A P (+)	
30		RS485 port 1: RS485-COM	
31	Communication bus 2	RS485 port 2: RS485-2B N (-)	Modbus
32		RS485 port 2: RS485-2A P (+)	
33		RS485 port 2: RS485-COM	
34	Communication bus 1	RS485 port 1: RS485-1B N (-)	Multipump
35		RS485 port 1: RS485-1A P (+)	
36		RS485 port 1: RS485-COM	
37	Communication bus 2	RS485 port 2: RS485-2B N (-)	Modbus
38		RS485 port 2: RS485-2A P (+)	
39		RS485 port 2: RS485-COM	
40	Relay 1	Configurable relay 1: Normally Open	Error
41		Configurable relay 1: Normally Closed	
42		Configurable relay 1: Common Contact	
43	Relay 2	Configurable relay 2: Normally Open	Running
44		Configurable relay 2: Normally Closed	
45		Configurable relay 2: Common Contact	

xm_morsLT-en_a_sc

e-LNT..X SERIES (hydrovar X+)
TERMINAL BOARD



REF.	ITEM	DESCRIPTION	DEFAULT
1	Analog Input 1	Power supply +24 VDC, max. 60mA (total, terminals 1 + 5)	Pressure Sensor 1
2		Configurable Analog Input 1	
3		Electronic GND	
4	Not used	Internal use - Do not connect	
5	Analog Input 2	Power supply +24 VDC, max. 60mA (total, terminals 1 + 5)	Not used
6		Configurable Analog Input 2	
7		Electronic GND	
8	External Start/Stop	Start/Stop digital input, +24 VDC internal pull-up, 6mA contact current	-
9		Electronic GND	
10	External Lack of Water	Low water digital input, +24 VDC internal pull-up, 6mA contact current	-
11		Electronic GND	
12	Digital Input 3	Configurable Digital Input 3, +24 VDC internal pull-up, 6mA contact current	Solo Run
13		Electronic GND	
14	Analog Output	Configurable Analog Output	Motor Speed
15		Electronic GND	
16	Analog Input 3	Power supply +24 VDC, max. 60mA (total, terminals 16 and 19)	Not used
17		Configurable Analog Input 3	
18		Electronic GND	
19	Analog Input 4	Power supply +24 VDC, max. 60mA (total, terminals 16 and 19)	Not used
20		Configurable Analog Input 4	
21		Electronic GND	
22	Digital Input 4	Configurable Digital Input 4, +24 VDC internal pull-up, 6mA contact current	Not used
23		Electronic GND	
24	Digital Input 5	Configurable Digital Input 5, +24 VDC internal pull-up, 6mA contact current	Not used
25		Electronic GND	
26	10 VDC supply	Power supply +10 VDC, max. 3mA	-
27		Electronic GND	
28	Communication bus 1	RS485 port 1: RS485-1B N (-)	Multipump
29		RS485 port 1: RS485-1A P (+)	
30		RS485 port 1: RS485-COM	
31	Communication bus 2	RS485 port 2: RS485-2B N (-)	Modbus
32		RS485 port 2: RS485-2A P (+)	
33		RS485 port 2: RS485-COM	
34	Communication bus 1	RS485 port 1: RS485-1B N (-)	Multipump
35		RS485 port 1: RS485-1A P (+)	
36		RS485 port 1: RS485-COM	
37	Communication bus 2	RS485 port 2: RS485-2B N (-)	Modbus
38		RS485 port 2: RS485-2A P (+)	
39		RS485 port 2: RS485-COM	
40	Relay 1	Configurable relay 1: Normally Open	Running
41		Configurable relay 1: Normally Closed	
42		Configurable relay 1: Common Contact	
43	Relay 2	Configurable relay 2: Normally Open	Error
44		Configurable relay 2: Normally Closed	
45		Configurable relay 2: Common Contact	

xm_morsHT-en_a_sc

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e-LNT..X, e-LNT..K SERIES
MINIMUM EFFICIENCY INDEX (MEI)

PUMP MODEL LNT..X, LNT..K	MOTOR P_N [kW]	MOTOR SIZE	MOTOR SPEED	REFERENCE MODEL LNT	IMPELLER (1) Ø [mm]	IMPELLER (1) ○ ●	MEI
32-480	3	B	high (2)	32-160/30	156	●	≥0,4
40-420	3	B	high (2)	40-125/30	145	●	≥0,4
40-470	4	B	high (2)	40-125/30	145	●	≥0,4
40-600	5,5	C	high (2)	40-160/55	171	●	≥0,4
40-720	7,5	C	high (2)	40-200/75	205	●	≥0,4
40-810	11	C	high (2)	40-200/75	205	●	≥0,4
50-320	3	B	high (2)	50-125/40	135	●	≥0,4
50-390	4	B	high (2)	50-125/40	135	●	≥0,4
50-490	5,5	C	high (2)	50-160/75	165	●	≥0,4
50-590	7,5	C	high (2)	50-160/75	165	●	≥0,4
50-720	11	C	high (2)	50-200/110	199	●	≥0,4
50-800	15	D	high (2)	50-200/110	199	●	≥0,4
50-900	18,5	D	high (2)	50-200/110	199	●	≥0,4
65-190	3	B	high (2)	65-125/75	144	○	≥0,4
65-300	4	B	high (2)	65-125/75	144	○	≥0,4
65-340	5,5	C	high (2)	65-125/75	148	●	≥0,4
65-360	7,5	C	high (2)	65-125/75	148	●	≥0,4
65-490	11	C	high (2)	65-160/110	176	●	≥0,4
65-610	15	D	high (2)	65-160/110	176	●	≥0,4
65-770	18,5	D	high (2)	65-200/185	209	●	≥0,4
80-210	4	B	high (2)	85-125/110	117,8	○	≥0,4
80-320	5,5	C	high (2)	85-125/110	148	●	≥0,4
80-410	7,5	C	high (2)	85-125/110	148	●	≥0,4
80-500	11	C	high (2)	85-125/110	148	●	≥0,4
80-520	15	D	high (2)	80-160/185	180	●	≥0,4
80-570	18,5	D	high (2)	80-160/185	180	●	≥0,4
80-630	22	D	high (2)	80-160/185	180	●	≥0,4
100-110	4	C	low (4)	100-160/220	168	○	≥0,4
100-150	5,5	C	low (4)	100-160/220	168	○	≥0,4
100-280	11	D	high (2)	100-160/220	168	○	≥0,4
100-370	15	D	high (2)	100-160/220	177	●	≥0,4
100-400	18,5	D	high (2)	100-160/220	177	●	≥0,4
100-430	22	D	high (2)	100-160/220	177	●	≥0,4
125-100	3	C	low (4)	125-160/40	148	○	≥0,4
125-140	4	C	low (4)	125-160/40	148	○	≥0,4
125-180	5,5	C	low (4)	125-160/40	167	○	≥0,4
125-270	7,5	D	low (4)	125-200/75	202	○	≥0,4
125-340	11	D	low (4)	125-250/110	230	○	≥0,4
150-130	5,5	C	low (4)	150-200/110	175	○	≥0,4
150-210	11	D	low (4)	150-200/110	179	○	≥0,4
150-170	7,5	D	low (4)	150-200/110	195	○	≥0,4
150-270	11	D	low (4)	150-250/150	225	○	≥0,4

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

LNTX-MEI-en_a_sc

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e-LNT..X, e-LNT..K SERIES
HYDRAULIC PERFORMANCE TABLE, SINGLE OPERATION

PUMP	MOTOR		Q = FLOW									
TYPE			l/min 0	58,33	116,7	175	233,3	291,7	350	408,3	466,67	500
LNT..X	PN	TYPE	m3/h 0	3,5	7	10,5	14	17,5	21	24,5	28	30
LNT..K	kW		H = TOTAL HEAD METRES COLUMN OF WATER									
32-480	3	EXM100../4.030BH2	46,8	47,6	47,8	47,4	44,9	38,0	31,7	25,1	17,0	11,0

PUMP	MOTOR		Q = FLOW									
TYPE			l/min 0	100	200	300	400	500	600	700	800	850
LNT..X	PN	TYPE	m3/h 0	6	12	18	24	30	36	42	48	51
LNT..K	kW		H = TOTAL HEAD METRES COLUMN OF WATER									
40-420	3	EXM100../4.030BH2	40,2	41,3	41,6	36,3	29,3	22,6	15,8	9,1		
40-470	4	EXM112../4.040BH2	44,8	46,0	46,3	45,7	38,5	31,1	23,7	16,5		
40-600	5,5	EXM132../4.055CH2	56,5	58,7	59,4	58,7	51,4	43,2	35,5	28,2	21,0	17,4
40-720	7,5	EXM132../4.075CH2	73,7	72,7	72,4	70,6	59,7	50,8	41,2	29,7		
40-810	11	EXM132B14S2/4.110CH2 EXM160B5/4.110CH2	82,7	81,5	81,3	79,8	77,6	72,2	62,6	53,2		

PUMP	MOTOR		Q = FLOW									
TYPE			l/min 0	150	300	450	600	750	900	1050	1200	1280
LNT..X	PN	TYPE	m3/h 0	9	18	27	36	45	54	63	72	76,8
LNT..K	kW		H = TOTAL HEAD METRES COLUMN OF WATER									
50-320	3	EXM100../4.030BH2	37,8	35,8	31,3	26,0	19,5	13,3	8,6			
50-390	4	EXM112../4.040BH2	42,1	41,5	38,8	33,3	27,6	21,9	16,4	11,0		
50-490	5,5	EXM132../4.055CH2	48,5	47,9	48,2	44,1	36,4	27,6	19,7	13,7		
50-590	7,5	EXM132../4.075CH2	57,7	56,9	57,1	56,3	49,1	41,9	34,6	27,0	19,6	16,5
50-720	11	EXM132B14S2/4.110CH2 EXM160B5/4.110CH2	69,4	71,1	70,6	69,2	63,6	54,5	46,5	37,8		
50-800	15	EXM160../4.150DH2	77,8	79,6	79,4	77,8	75,7	72,3	63,0	54,1		
50-900	18,5	EXM160../4.185DH2	86,6	88,7	88,6	87,1	84,8	81,9	76,6	67,1		

PUMP	MOTOR		Q = FLOW									
TYPE			l/min 0	250	500	750	1000	1250	1500	1750	2000	2220
LNT..X	PN	TYPE	m3/h 0	15	30	45	60	75	90	105	120	133,2
LNT..K	kW		H = TOTAL HEAD METRES COLUMN OF WATER									
65-190	3	EXM100../4.030BH2	19,5	18,9	18,7	12,8	7,7					
65-300	4	EXM112../4.040BH2	31,9	31,1	27,3	20,0	13,9	8,2				
65-340	5,5	EXM132../4.055CH2	36,0	35,1	34,3	29,8	22,3	15,3	9,5			
65-360	7,5	EXM132../4.075CH2	38,2	37,3	36,4	35,0	31,9	25,3	18,7	12,5		
65-490	11	EXM132B14S2/4.110CH2 EXM160B5/4.110CH2	50,0	49,1	48,2	46,8	44,0	36,8	29,5	22,2	14,7	8,4
65-610	15	EXM160../4.150DH2	61,3	60,3	59,4	58,1	55,8	49,6	41,6	33,5	25,4	18,2
65-770	18,5	EXM160../4.185DH2	75,3	77,3	76,9	75,0	71,8	61,8	51,3	39,7		

Hydraulic performances in compliance with ISO 9906:2012 - Grade 3B (ex ISO 9S

LNTXs-1-en_a_th

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e-LNT..X, e-LNT..K SERIES
HYDRAULIC PERFORMANCE TABLE, SINGLE OPERATION

PUMP	MOTOR		Q = FLOW									
TYPE			l/min 0	358,3	716,7	1075	1433	1792	2150	2508	2867	3225
LNT..X	PN	TYPE	m3/h 0	21,5	43	64,5	86	107,5	129	150,5	172	193,5
LNT..K	kW		H = TOTAL HEAD METRES COLUMN OF WATER									
80-210	4	EXM112../4.040BH2	22,4	22,1	18,6	15,0	10,3					
80-320	5,5	EXM132../4.055CH2	33,6	33,6	27,0	18,1	11,7	6,5				
80-410	7,5	EXM132../4.075CH2	37,9	38,0	35,7	28,5	20,8	13,8	8,2			
80-500	11	EXM160../4.110CH2	46,1	46,2	45,9	40,1	32,5	25,7	19,2			
80-520	15	EXM160../4.150DH2	51,0	50,6	50,1	49,3	46,2	38,4	30,2	22,6	15,9	9,7
80-570	18,5	EXM160../4.185DH2	55,9	55,4	55,0	54,1	52,3	47,2	39,2	31,6	24,4	17,6
80-630	22	EXM180../4.220DH2	61,0	60,5	60,2	59,2	57,5	54,4	46,9	38,8	31,0	23,5

PUMP	MOTOR		Q = FLOW									
TYPE			l/min 0	446,7	893,3	1340	1787	2233	2680	3127	3573,3	4000
LNT..X	PN	TYPE	m3/h 0	26,8	53,6	80,4	107,2	134	160,8	187,6	214,4	240
LNT..K	kW		H = TOTAL HEAD METRES COLUMN OF WATER									
100-110	4	EXM112../4.040CH4	11,8	11,4	10,7	9,6	8,0	5,7				
100-150	5,5	EXM132../4.055CH4	16,3	15,9	15,2	14,1	12,5	10,3	7,4			
100-280	11	EXM160../4.110DH2	29,8	29,3	28,3	27,4	22,2	16,9	12,9	9,4		
100-370	15	EXM160../4.150DH2	38,2	37,7	36,6	35,7	32,4	25,6	20,2	15,9	12,1	
100-400	18,5	EXM160../4.185DH2	40,9	40,3	39,4	38,0	36,7	34,7	28,7	23,2	18,6	14,7
100-430	22	EXM180../4.220DH2	43,6	43,0	42,1	40,9	39,4	37,6	35,2	30,6	25,7	21,1

PUMP	MOTOR		Q = FLOW									
TYPE			l/min 0	383,3	766,7	1150	1533	1917	2300	2683	3067	3400
LNT..X	PN	TYPE	m3/h 0	23	46	69	92	115	138	161	184	204
LNT..K	kW		H = TOTAL HEAD METRES COLUMN OF WATER									
125-100	3	EXM100../4.030CH4	8,5	8,5	8,4	8,0	7,1	5,8				
125-140	4	EXM112../4.040CH4	11,7	11,7	11,7	11,4	9,9	8,1				
125-180	5,5	EXM132../4.055CH4	15,9	16,0	15,9	15,6	14,2	12,1	9,7			
125-270	7,5	EXM132../4.075DH4	24,2	24,1	24,0	22,5	19,8	17,2	14,6	11,9		
125-340	11	EXM160../4.110DH4	32,2	32,2	32,1	31,8	29,5	25,7	22,1	18,5	15,0	11,7

PUMP	MOTOR		Q = FLOW									
TYPE			l/min 0	591,7	1183	1775	2367	2958	3550	4142	4733	5300
LNT..X	PN	TYPE	m3/h 0	35,5	71	106,5	142	177,5	213	248,5	284	318
LNT..K	kW		H = TOTAL HEAD METRES COLUMN OF WATER									
150-130	5,5	EXM132../4.055CH4	12,4	11,8	11,4	10,6	9,3	7,7	6,0	4,1		
150-170	7,5	EXM132../4.075DH4	18,0	17,3	16,1	14,5	12,8	10,9	8,9	6,8		
150-210	11	EXM160../4.110DH4	18,2	18,3	18,3	17,9	16,7	14,9	12,9	10,7	8,4	
150-270	11	EXM160../4.110DH4	26,0	24,3	22,4	20,3	18,0	15,6	13,0	10,4	7,8	5,2

Prestazioni idrauliche conformi ISO 9906:2012 - Grade 3B (ex ISO 9906:1999 - Annex A)

LNTXs-2-en_a_th

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e-LNT..X, e-LNT..K SERIES
HYDRAULIC PERFORMANCE TABLE, PARALLEL OPERATION

PUMP TYPE	MOTOR		Q = FLOW									
			l/min 0	83,33	166,7	250	333,3	416,7	500	583,3	666,67	690
LNT..X	PN	TYPE	m3/h 0	5	10	15	20	25	30	35	40	41,4
LNT..K	kW		H = TOTAL HEAD METRES COLUMN OF WATER									
32-480	3	EXM100../4.030BH2	47,2	47,3	47,4	47,1	46,4	45,1	41,0	35,6	30,0	28,4

PUMP TYPE	MOTOR		Q = FLOW									
			l/min 0	141,7	283,3	425	566,7	708,3	850	991,7	1133,3	1220
LNT..X	PN	TYPE	m3/h 0	8,5	17	25,5	34	42,5	51	59,5	68	73,2
LNT..K	kW		H = TOTAL HEAD METRES COLUMN OF WATER									
40-420	3	EXM100../4.030BH2	40,7	41,5	41,5	41,1	36,3	30,7	25,2	19,6	13,8	10,1
40-470	4	EXM112../4.040BH2	45,3	46,2	46,3	45,7	44,7	40,3	34,2	28,1	21,9	18,0
40-600	5,5	EXM132../4.055CH2	56,8	58,8	59,3	58,8	57,6	52,8	45,9	39,1	32,3	28,1
40-720	7,5	EXM132../4.075CH2	73,9	73,6	72,7	71,4	69,8	63,2	55,3	47,8	39,7	
40-810	11	EXM132B14S2/4.110CH2 EXM160B5/4.110CH2	82,8	82,5	81,7	80,4	78,6	76,4	73,6	69,9	61,3	

PUMP TYPE	MOTOR		Q = FLOW									
			l/min 0	208,3	416,7	625	833,3	1042	1250	1458	1666,7	1860
LNT..X	PN	TYPE	m3/h 0	12,5	25	37,5	50	62,5	75	87,5	100	111,6
LNT..K	kW		H = TOTAL HEAD METRES COLUMN OF WATER									
50-320	3	EXM100../4.030BH2	38,9	36,4	32,9	29,5	25,8	21,5	16,4	11,5		
50-390	4	EXM112../4.040BH2	43,4	42,2	40,7	36,9	32,9	28,6	24,1	19,5	14,8	
50-490	5,5	EXM132../4.055CH2	49,8	49,0	48,3	47,6	42,9	37,8	31,3	23,9	16,5	
50-590	7,5	EXM132../4.075CH2	59,2	58,4	57,6	57,0	55,1	49,6	43,9	37,9	31,5	
50-720	11	EXM132B14S2/4.110CH2 EXM160B5/4.110CH2	70,0	70,5	70,5	69,7	68,6	66,3	59,5	51,9	44,3	37,3
50-800	15	EXM160../4.150DH2	78,5	79,0	79,0	78,4	77,1	75,3	72,7	69,2	61,8	54,0
50-900	18,5	EXM160../4.185DH2	87,5	88,0	88,1	87,5	86,3	84,5	82,0	78,8	74,7	67,9

PUMP TYPE	MOTOR		Q = FLOW									
			l/min 0	333,3	666,7	1000	1333	1667	2000	2333	2666,7	2950
LNT..X	PN	TYPE	m3/h 0	20	40	60	80	100	120	140	160	177
LNT..K	kW		H = TOTAL HEAD METRES COLUMN OF WATER									
65-190	3	EXM100../4.030BH2	20,3	19,1	18,4	17,4	13,8	8,7				
65-300	4	EXM112../4.040BH2	33,3	31,5	30,6	27,2	22,2	16,1	10,4	5,2		
65-340	5,5	EXM132../4.055CH2	37,2	35,8	34,5	33,3	30,1	25,2	19,4	13,5	7,9	
65-360	7,5	EXM132../4.075CH2	39,5	38,0	36,8	35,5	34,0	32,1	28,9	23,5	17,9	
65-490	11	EXM132B14S2/4.110CH2 EXM160B5/4.110CH2	52,3	50,4	49,0	47,6	46,0	44,0	41,1	35,4	29,3	
65-610	15	EXM160../4.150DH2	64,2	62,1	60,5	58,9	57,2	55,2	52,6	48,6	42,0	
65-770	18,5	EXM160../4.185DH2	75,9	76,5	76,6	75,7	74,0	71,7	68,2	60,3	51,1	43,2

Hydraulic performances in compliance with ISO 9906:2012 - Grade 3B (ex ISO 99

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e-LNT..X, e-LNT..K SERIES
HYDRAULIC PERFORMANCE TABLE, PARALLEL OPERATION

PUMP TYPE	MOTOR		Q = FLOW									
			l/min 0	475	950	1425	1900	2375	2850	3325	3800	4250
LNT..X	PN	TYPE	m3/h 0	28,5	57	85,5	114	142,5	171	199,5	228	255,0
LNT..K	kW		H = TOTAL HEAD METRES COLUMN OF WATER									
80-210	4	EXM112../4.040BH2	22,8	21,4	20,2	18,4	15,8	12,5				
80-320	5,5	EXM132../4.055CH2	35,1	34,0	31,0	25,8	20,1	14,5	9,3			
80-410	7,5	EXM132../4.075CH2	39,6	38,9	38,2	34,4	30,2	25,1	18,9	12,7	7,4	
80-500	11	EXM160../4.110CH2	48,2	47,4	46,6	45,7	41,6	36,5	31,1	25,5	19,6	
80-520	15	EXM160../4.150DH2	52,0	50,6	49,9	49,3	48,4	47,1	44,1	37,9	31,6	
80-570	18,5	EXM160../4.185DH2	57,0	55,5	54,8	54,2	53,3	51,9	49,9	46,7	40,3	
80-630	22	EXM180../4.220DH2	62,2	60,6	59,8	59,2	58,4	57,1	55,1	52,3	48,6	41,9

PUMP TYPE	MOTOR		Q = FLOW									
			l/min 0	580	1160	1740	2320	2900	3480	4060	4640	5200
LNT..X	PN	TYPE	m3/h 0	34,8	69,6	104,4	139,2	174	208,8	243,6	278,4	312
LNT..K	kW		H = TOTAL HEAD METRES COLUMN OF WATER									
100-110	4	EXM112../4.040CH4	11,5	11,3	10,8	9,9	8,6	6,8	4,5			
100-150	5,5	EXM132../4.055CH4	15,9	15,7	15,2	14,3	13,1	11,4	9,1	6,4		
100-280	11	EXM160../4.110DH2	30,0	28,6	27,6	26,9	26,1	24,5	20,6	16,4	11,6	
100-370	15	EXM160../4.150DH2	40,4	38,6	37,3	36,1	34,9	33,2	30,0	26,4		
100-400	18,5	EXM160../4.185DH2	43,2	41,5	39,9	38,6	37,6	36,6	35,4	33,8	31,6	
100-430	22	EXM180../4.220DH2	46,2	44,4	42,7	41,4	40,3	39,2	38,1	36,6	34,5	31,8

PUMP TYPE	MOTOR		Q = FLOW									
			l/min 0	633,3	1267	1900	2533	3167	3800	4433	5067	5670
LNT..X	PN	TYPE	m3/h 0	38	76	114	152	190	228	266	304	340,2
LNT..K	kW		H = TOTAL HEAD METRES COLUMN OF WATER									
125-100	3	EXM100../4.030CH4	8,3	8,3	8,3	8,1	7,4	6,3				
125-140	4	EXM112../4.040CH4	11,5	11,5	11,5	11,4	10,5	9,0				
125-180	5,5	EXM132../4.055CH4	15,9	15,9	15,9	15,8	15,2	13,3	11,1			
125-270	7,5	EXM132../4.075DH4	24,4	24,1	23,9	23,7	21,3	19,0	16,6	14,2	11,5	
125-340	11	EXM160../4.110DH4	32,0	32,1	32,0	31,8	31,1	28,0	24,5	21,1	17,5	14,1

PUMP TYPE	MOTOR		Q = FLOW									
			l/min 0	925	1850	2775	3700	4625	5550	6475	7400	8300
LNT..X	PN	TYPE	m3/h 0	55,5	111	166,5	222	277,5	333	388,5	444	498
LNT..K	kW		H = TOTAL HEAD METRES COLUMN OF WATER									
150-130	5,5	EXM132../4.055CH4	12,2	12,2	11,9	11,2	10,1	8,8	7,2	5,5		
150-170	7,5	EXM132../4.075DH4	17,4	16,6	15,7	14,7	13,5	12,1	10,5	8,7	6,6	
150-210	11	EXM160../4.110DH4	18,2	18,2	18,1	17,9	17,5	16,2	14,5	12,6	10,5	
150-270	11	EXM160../4.110DH4	27,1	25,5	24,0	22,5	20,7	18,7	16,3	13,7	10,9	8,3

Prestazioni idrauliche conformi ISO 9906:2012 - Grade 3B (ex ISO 9906:1999 - Annex A)

LNTXp-2-en_b_th

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hydrovar X, hydrovar X+
ELECTRICAL DATA TABLE

In the speed range indicated for each model in the table, the rated power is guaranteed. Above the maximum speed required by the pump model, the motor is automatically limited. Below the minimum full load rated speed, the motor works partially load.

P_N	MOTOR TYPE	IEC SIZE*	Construction Design	SPEED	INPUT CURRENT	DATA RELATED TO THE VOLTAGE OF 400V						
				(RPM)**	I (A)	In	cosφ	Tn	η %			IES
kW				min^{-1}	380-480 V	A		Nm	4/4	3/4	2/4	
3	EXM100../4.030BH2	100		3000	6,7-5,3	5,8	0,86	9,6	87,5	87,3	86,2	2
				3600		5,7		8,0	87,8	87,6	85,8	
				4000		5,7		7,2	87,7	87,4	85,5	
	EXM100../4.030CH4			1500	7,9-7,0	7,6	0,66	19,1	86,1	86,5	86,1	
				1800		7,5		15,9	86,7	87,3	87,0	
				2000		7,6		14,3	86,7	87,7	87,6	
4	EXM112../4.040BH2	112		3000	7,7-6,6	7,3	0,90	12,7	87,5	88,0	87,5	
				3600		7,2		10,6	88,5	88,6	87,3	
				4000		7,3		9,6	88,0	88,2	86,6	
	EXM112../4.040CH4			1500	9,2-8,5	8,9	0,72	25,5	89,6	89,8	89,4	
				1800		9,0		21,2	90,1	90,6	90,5	
				2000		9,0		19,1	90,3	91,0	91,1	
5,5	EXM132../4.055CH2	132		3000	11,4-11,0	11.2	0,80	17,5	90,8	90,3	89,2	
				3600		11.0		14,6	90,6	89,9	88,5	
				4000		11.1		13,1	90,1	89,8	88,2	
	EXM132../4.055CH4			1500	11,2-10,2	10,8	0,81	35,0	90,7	91,0	90,5	
				1800		10,8		29,2	91,0	91,5	91,3	
				2000		10,8		26,3	90,1	91,2	90,6	
7,5	EXM132../4.075CH2	132		3000	14,4-12,5	13,4	0,85	23,9	90,6	89,7	87,9	
				3600		14,0		19,9	90,8	90,1	88,4	
				4000		13,5		17,9	89,5	88,6	86,4	
	EXM132../4.075DH4			1500	18,7-17,4	18,4	0,66	47,8	89,9	90,2	89,9	
				1800		18,1		39,8	90,7	90,9	90,8	
				2000		18,0		35,8	90,6	91,1	90,3	
11	EXM132../4.110CH2 EXM160../4.110CH2	132 160		3000	20,3-16,5	18,9	0,93	35,0	91,0	90,9	90,0	
				3600		19,1		29,2	89,7	89,5	88,2	
				4000		19,3		26,3	89,7	89,7	88,7	
11	EXM160../4.110DH2	160		3000	24,5-22,8	22,0	0,79	35,0	91,7	91,4	90,5	
				3600		22,1		29,2	91,6	90,9	89,4	
				4000		21,7		26,3	91,8	91,2	89,9	
	EXM160../4.110DH4			1500	24,5-22,8	24,3	0,74	70,0	91,0	91,0	90,4	
				1800		23,4		58,4	92,1	91,9	91,2	
				2000		23,1		52,5	92,3	92,3	91,7	
15	EXM160../4.150DH4	160		3000	30,2-27,1	26,4	0,81	47,8	91,5	91,4	90,5	
				3600		29,1		39,8	91,7	91,4	90,5	
				4000		29,1		35,8	91,2	91,1	89,7	
18,5	EXM160../4.185DH2	160		3000	33,5-28,6	32,2	0,90	58,9	91,7	91,7	91,2	
				3600		32,1		49,1	91,9	91,7	90,9	
				4000		32,1		44,2	91,9	91,7	90,8	
22	EXM180../4.220DH2	180		3000	38,9-32,4	33,5	0,93	70,0	92,4	92,0	91,2	
				3600		33,3		58,4	92,6	92,1	91,0	
				4000		32,7		52,7	92,5	91,9	90,5	

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

LNEX_mott-en_a_te

Note. **IES** refers to the efficiency class for frequency converter + motor systems (known as power drive system – PDS) with power between 0.12 kW and 1000 kW and between 100 V and 1000 V, according to the standard **IEC 61800-9-2:2017**.

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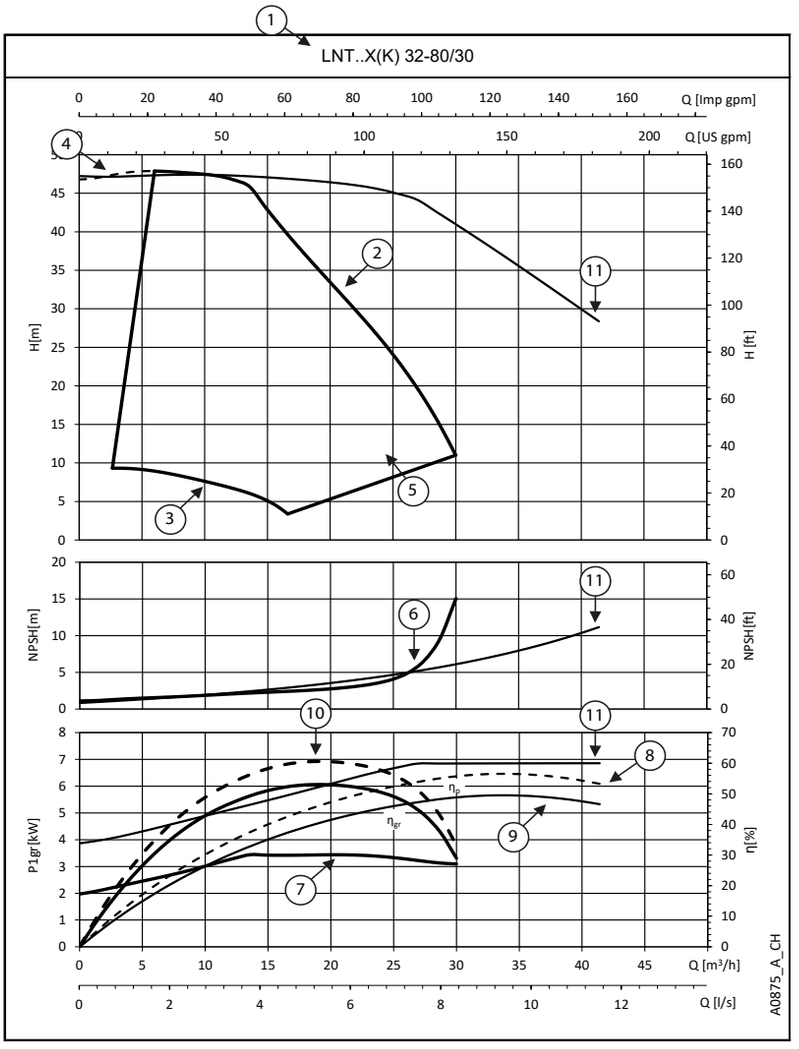
e-LNE..X, e-LNE..K SERIES
HOW TO READ e-LNE.. WITH hydrovar X CURVES

To exploit to the maximum potential of these pumps it's important to properly read working curves:



hydrovar X is equipped with a 5-LEDs "SPEED" bar. Each LED indicates a percentage of the system speed between minimum and maximum speed.

hydrovar X+
For maximum precision on the working point it is sufficient to read the display.

⑥ **NPSH**: is the net positive suction head of pump+motor+drive system working at maximum speed.

⑦ **$P1_{gr}$** is the power absorption in kW of pump+motor+drive system working at maximum speed. The curve increases until the unit reaches the power limit.
hydrovar X controls power consumption (flat part of the curve) at high flow/low head. In this way the motor stays protected from overload and ensure a longer life of pump+motor+drive system.

① **Pump model**

② **Maximum curve** (100%): pump running at the maximum set speed or nominal power.

③ **Minimum curve** (0%): it refers to the minimum rpm level the motor can work at, it's calculated depending on the model of pump maximizing for each one the working area and allowing the highest system flexibility.

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

⑤ The **allowable operating range** (AOR) of the pump is defined by the minimum and maximum head capacity curves as well as the minimum and maximum flow rates for a given speed.

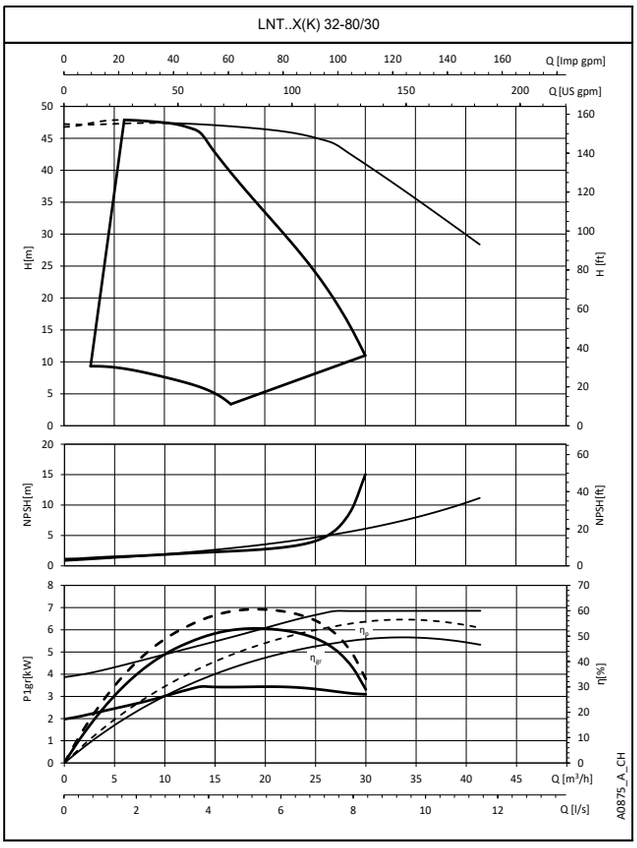
⑧ **η_p** is the efficiency of the hydraulic part, working at maximum speed (dotted line).

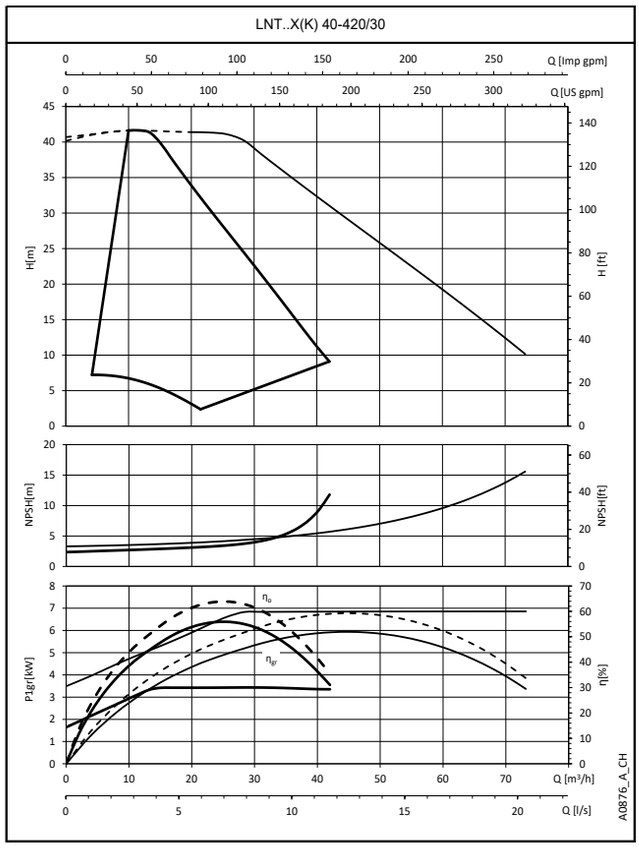
⑨ **η_{gr}** is the efficiency of pump+motor+drive system working at maximum speed (continuous line).

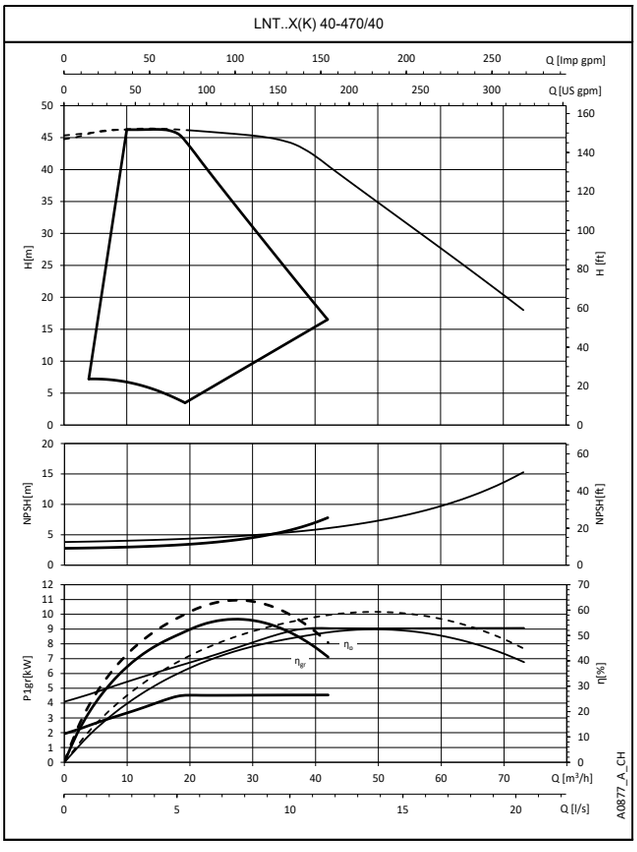
⑩ **Working point**: it's important to make sure the pump is working at the best working point, the one at highest efficiency.
It's easy to find it: it's the highest point of the ηp pump efficiency curve; once you found it, you can learn also flow values from x-axis called Q and head values from y-axis called H which allow the system to work at the best working point.

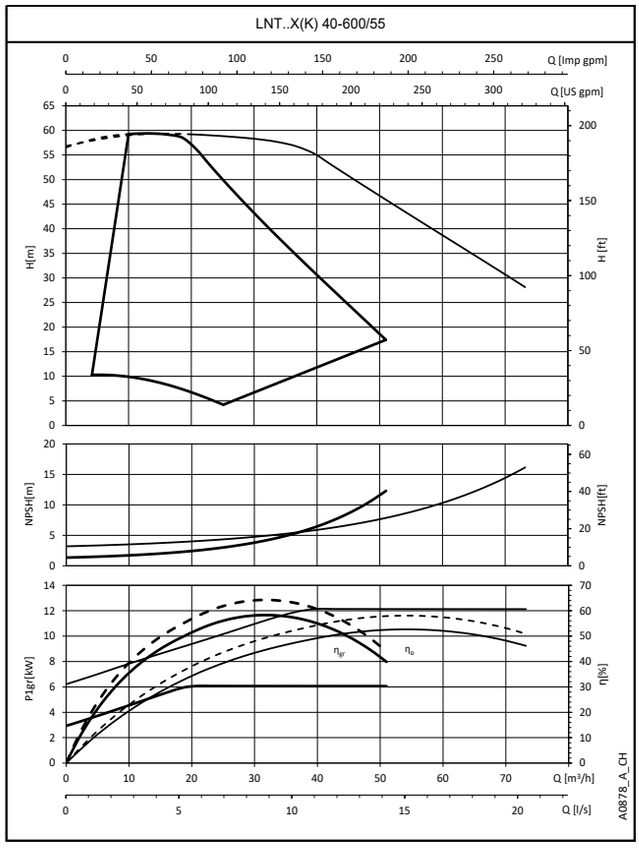
⑪ The thin lines are the **performance of the unit operating in parallel** at maximum speed.

e-LNT..X, e-LNT..K SERIES
OPERATING CHARACTERISTICS









These performances are valid for liquids with density $\rho = 1.0$ kg/dm³ and kinematic viscosity $\nu = 1$ mm²/sec.

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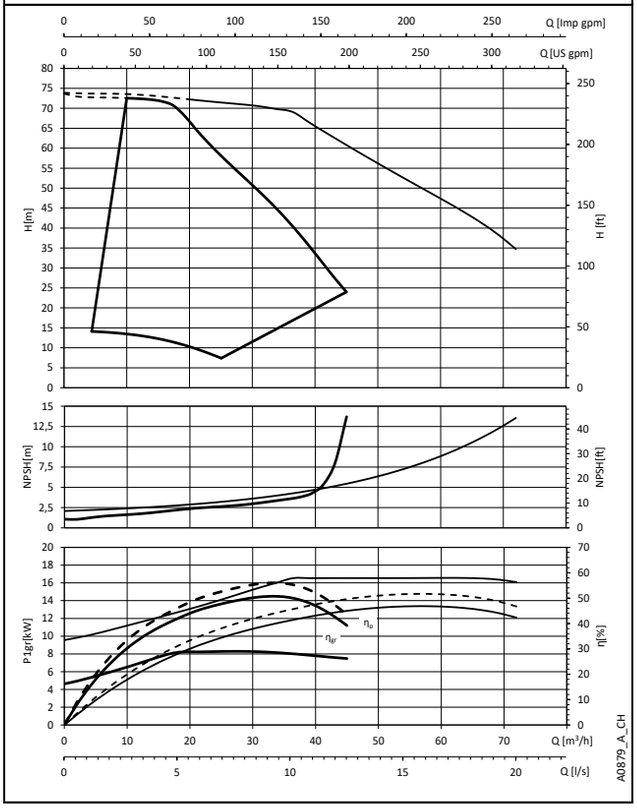
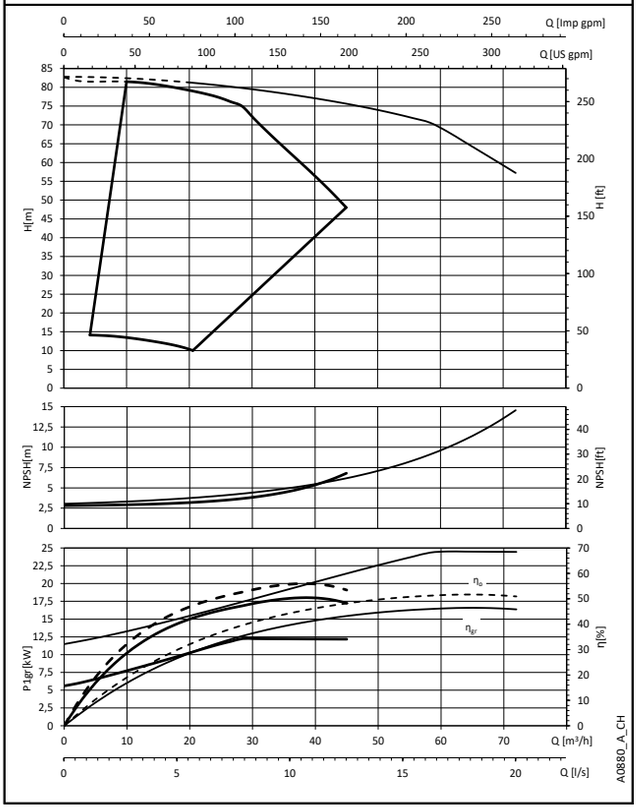
e-LNT..X, e-LNT..K SERIES
OPERATING CHARACTERISTICS

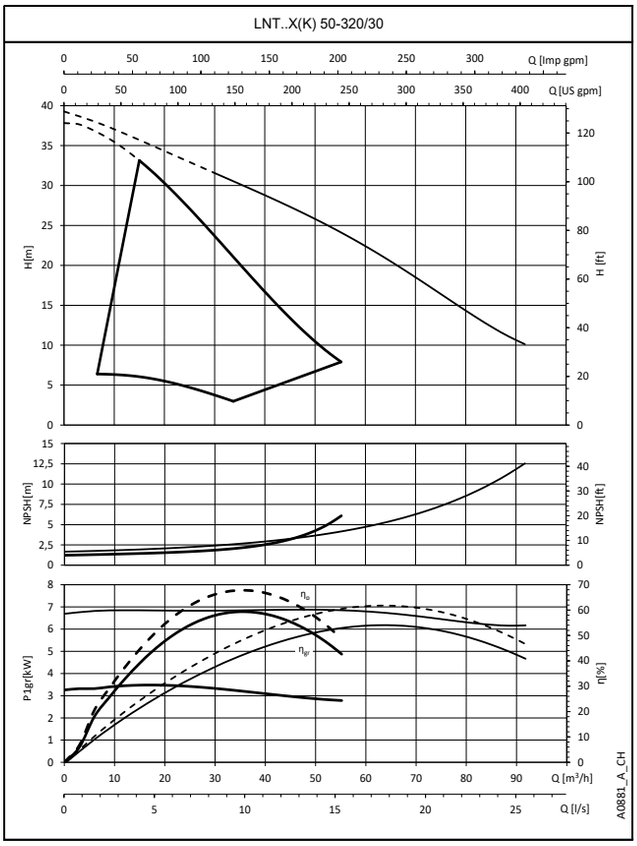
LNT..X(K) 40-720/75



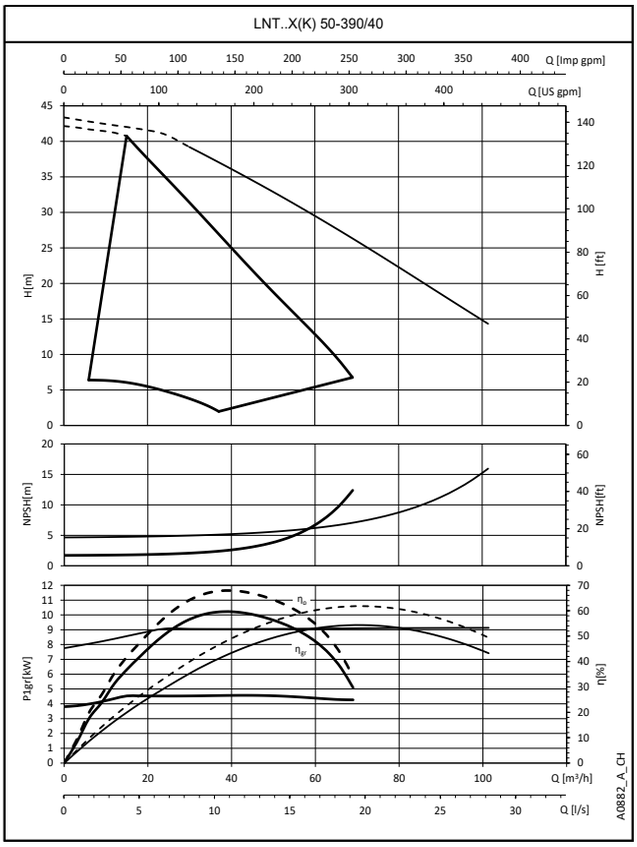
LNT..X(K) 40-810/110



LNT..X(K) 50-320/30



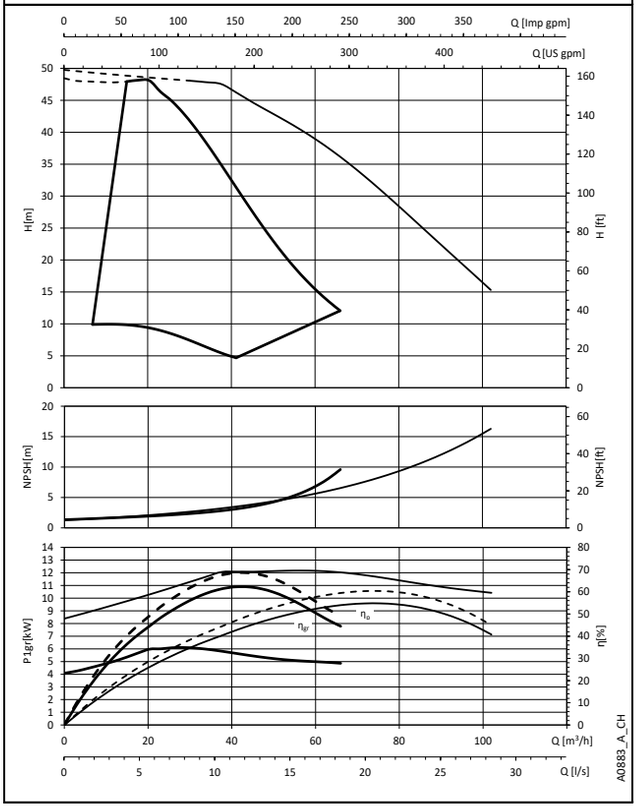
LNT..X(K) 50-390/40



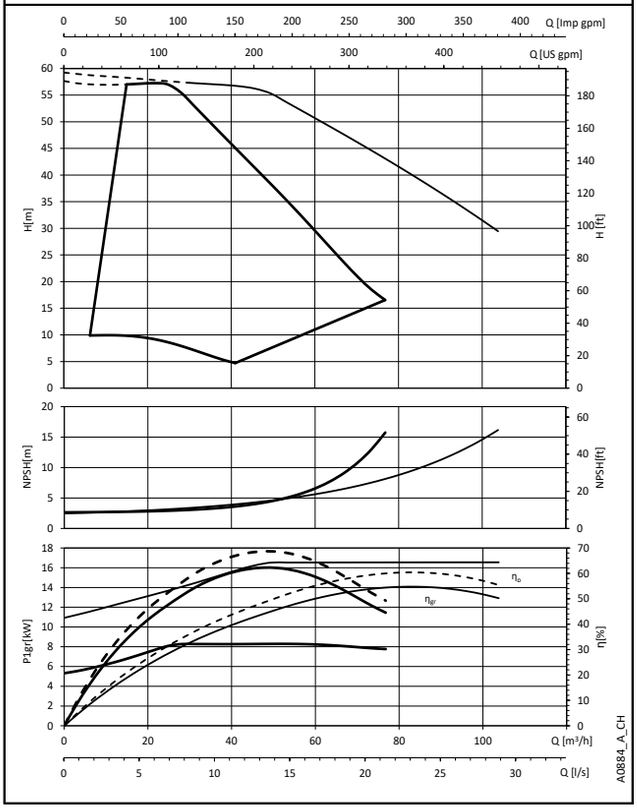
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

e-LNT..X, e-LNT..K SERIES
OPERATING CHARACTERISTICS

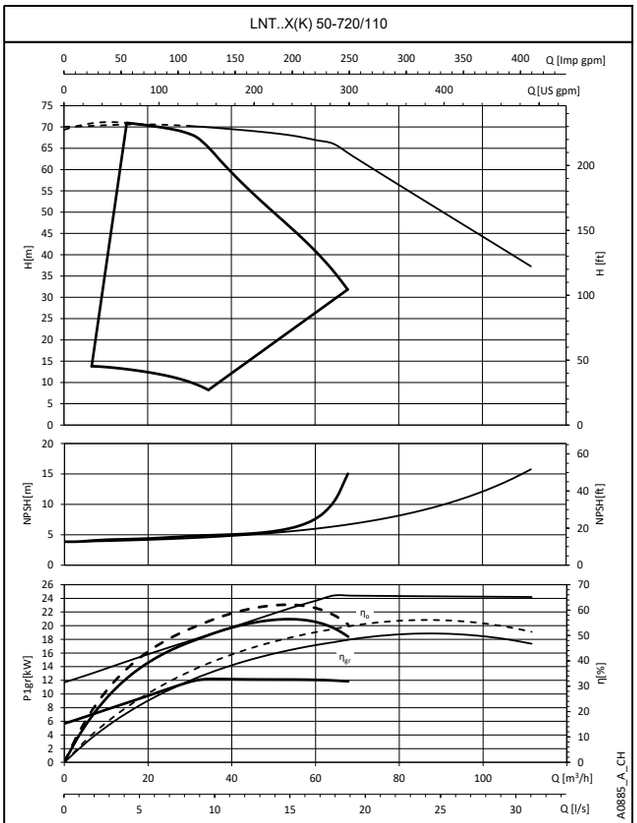
LNT..X(K) 50-490/55



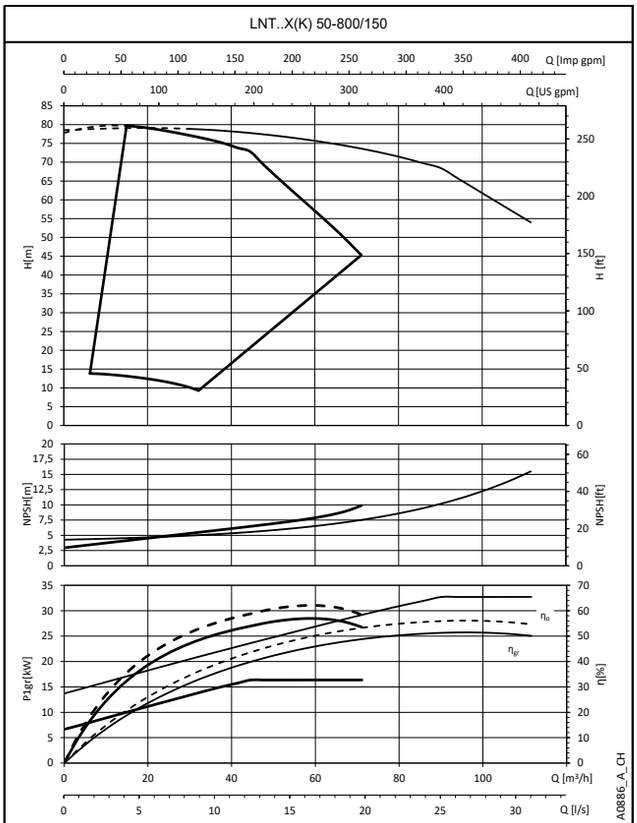
LNT..X(K) 50-590/75



LNT..X(K) 50-720/110



LNT..X(K) 50-800/150



These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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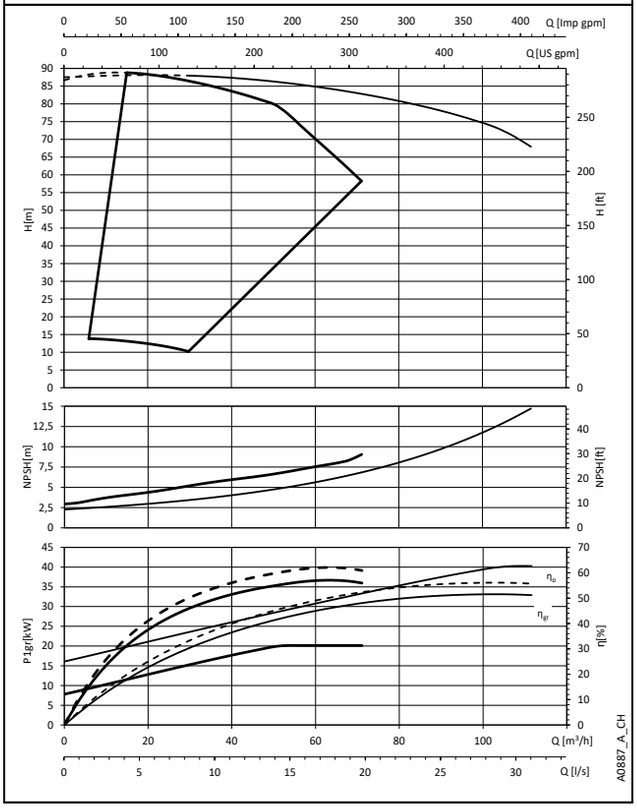
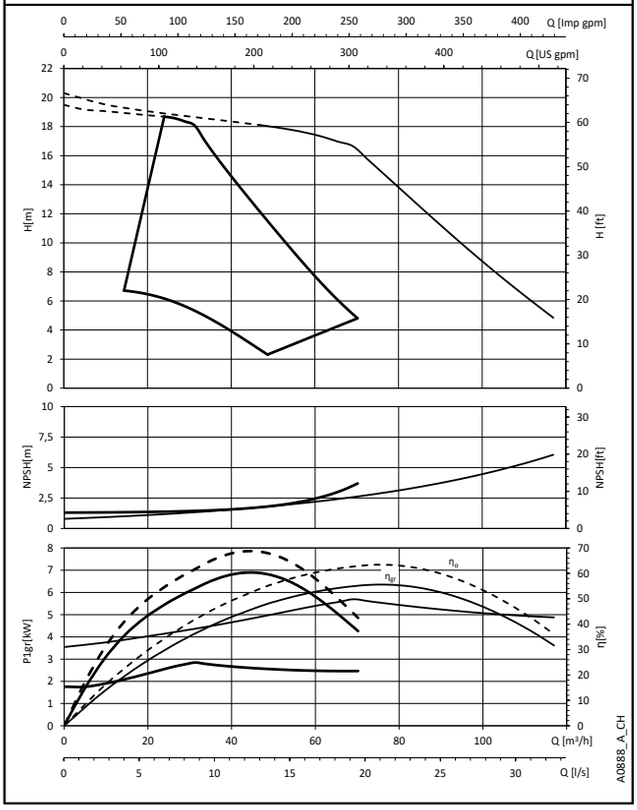
e-LNT..X, e-LNT..K SERIES
OPERATING CHARACTERISTICS

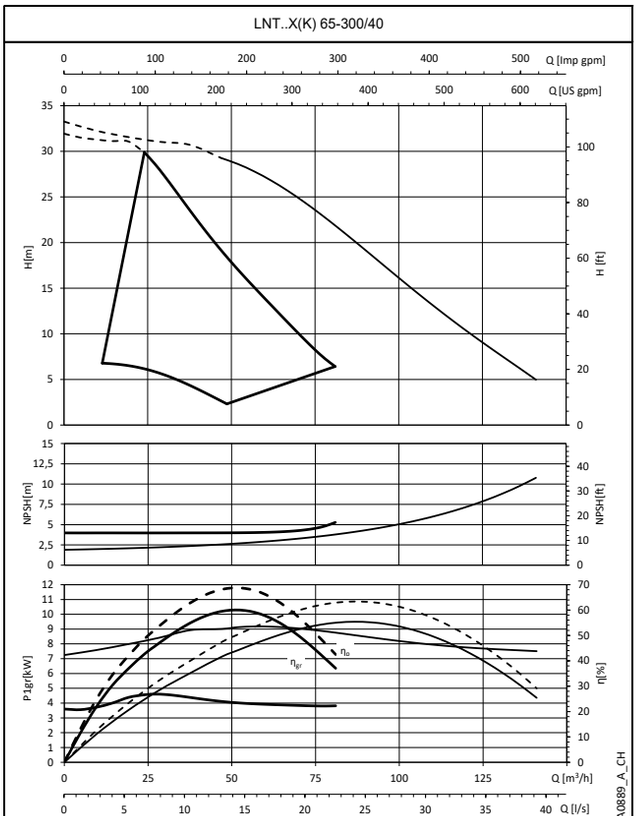
LNT..X(K) 50-900/185



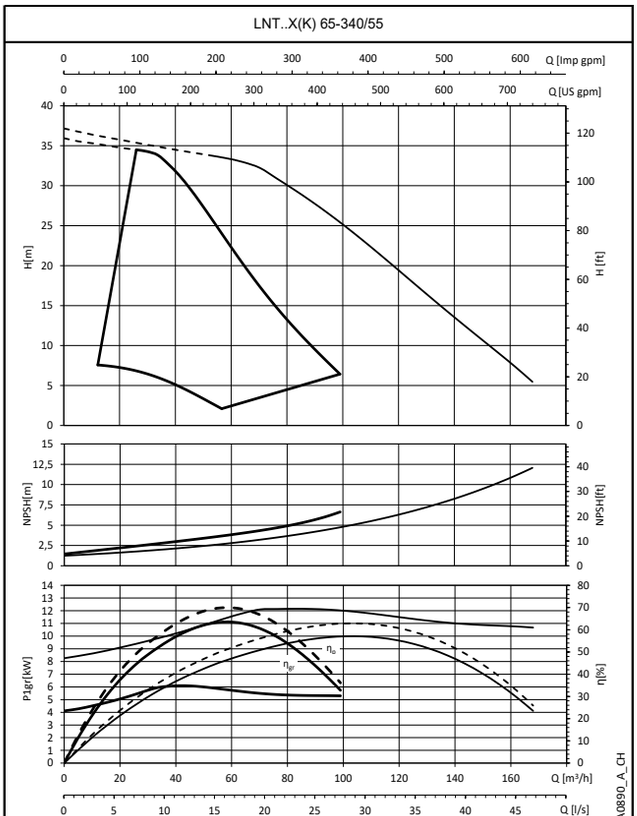
LNT..X(K) 65-190/30



LNT..X(K) 65-300/40



LNT..X(K) 65-340/55



These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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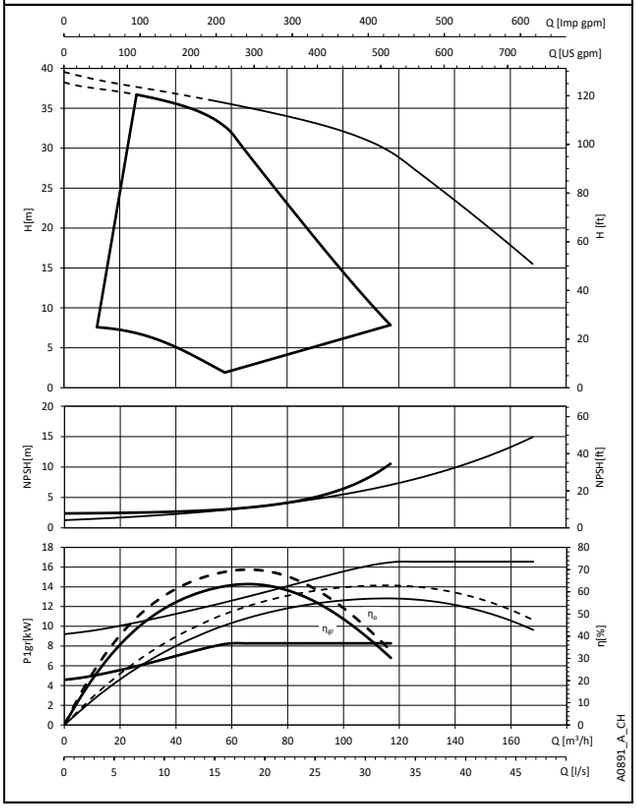
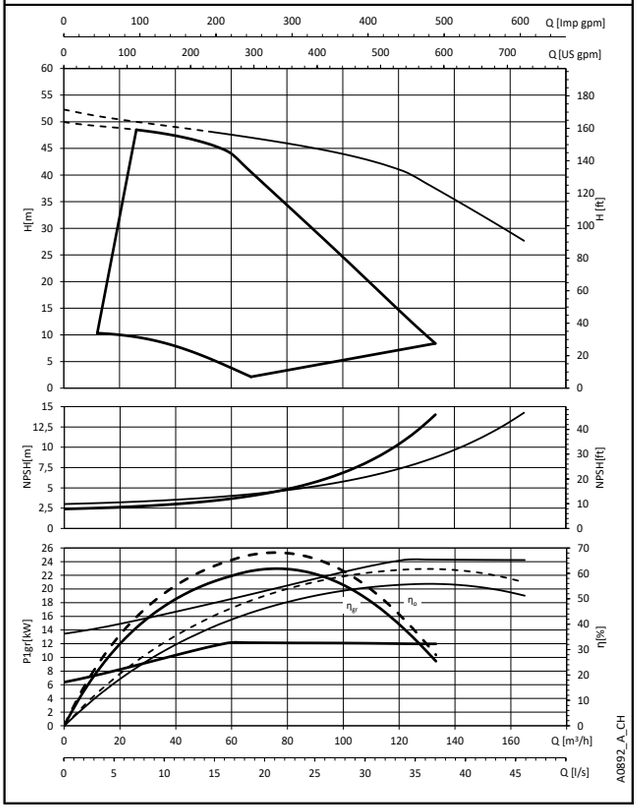
e-LNT..X, e-LNT..K SERIES
OPERATING CHARACTERISTICS

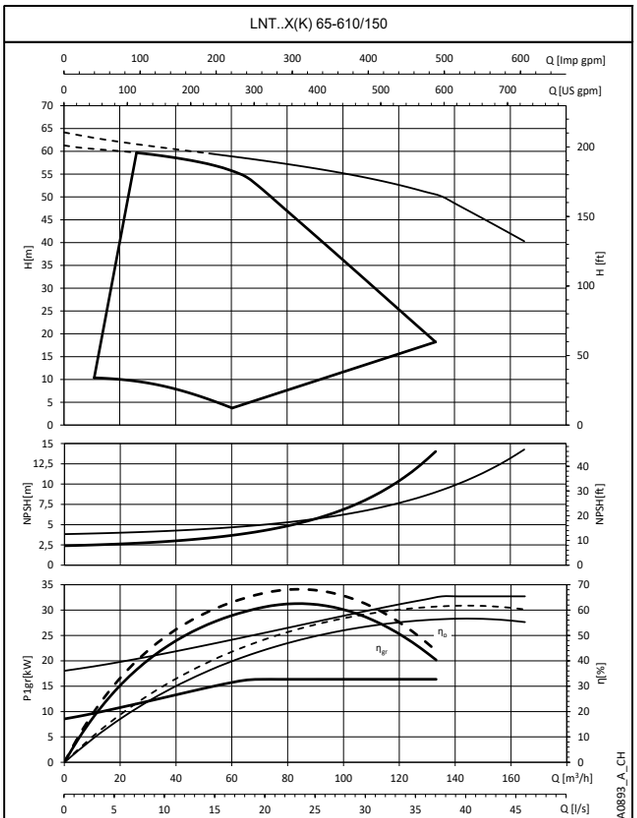
LNT..X(K) 65-360/75



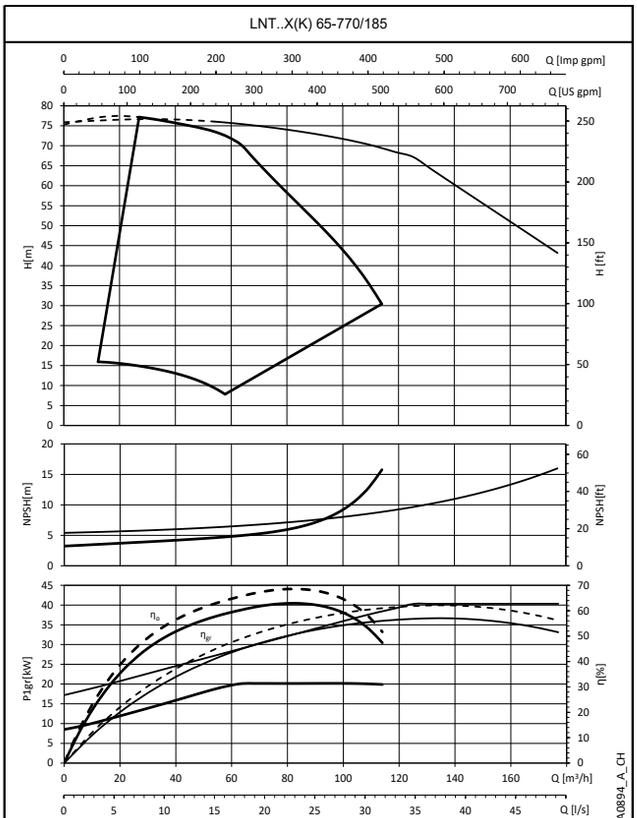
LNT..X(K) 65-490/110



LNT..X(K) 65-610/150



LNT..X(K) 65-770/185



These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

LOWARA
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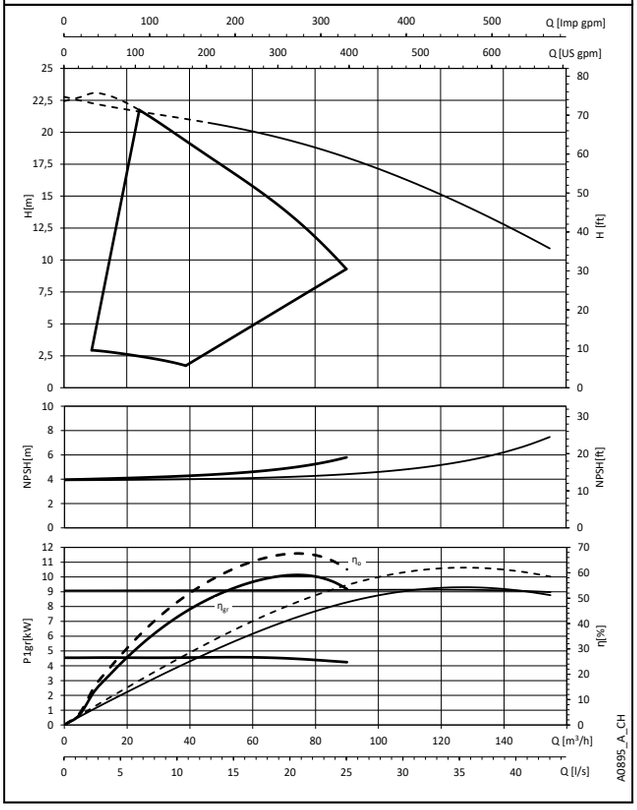
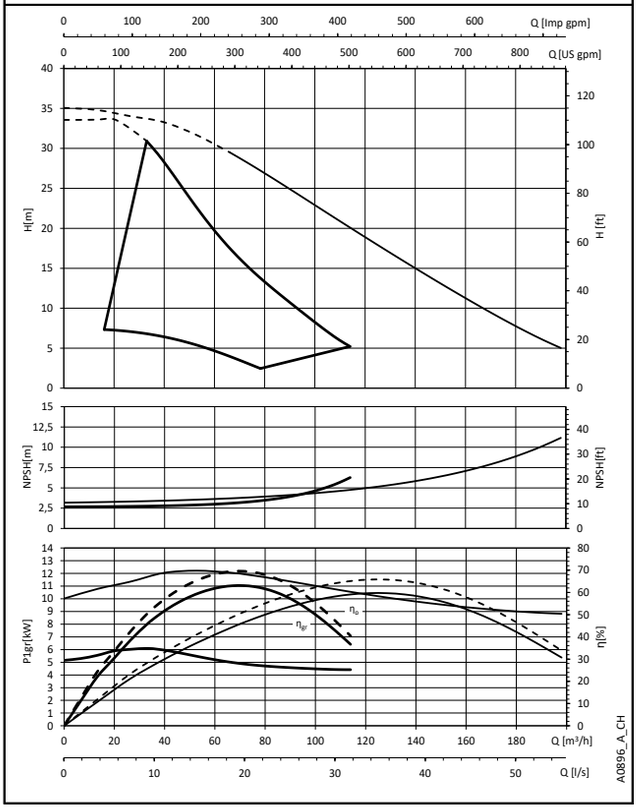
e-LNT..X, e-LNT..K SERIES
OPERATING CHARACTERISTICS

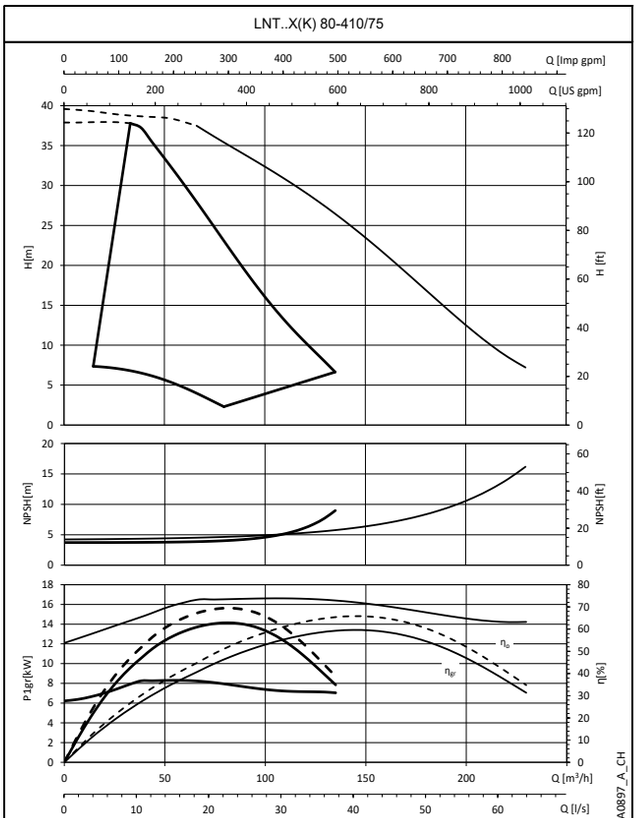
LNT..X(K) 80-210/40



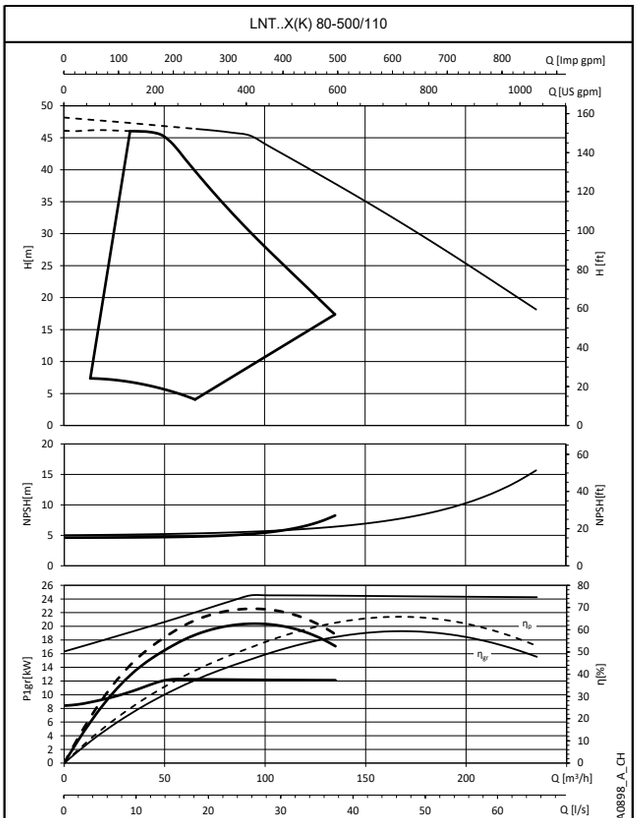
LNT..X(K) 80-320/55



LNT..X(K) 80-410/75



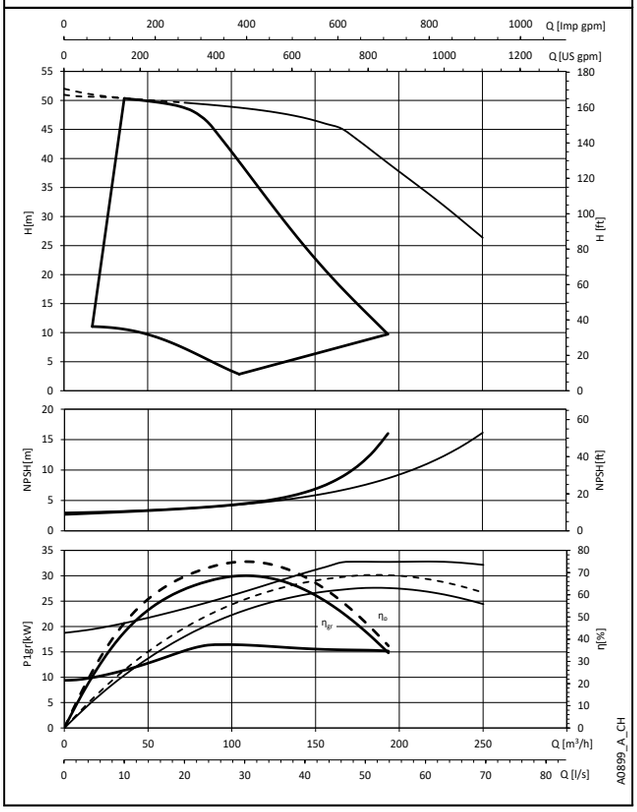
LNT..X(K) 80-500/110



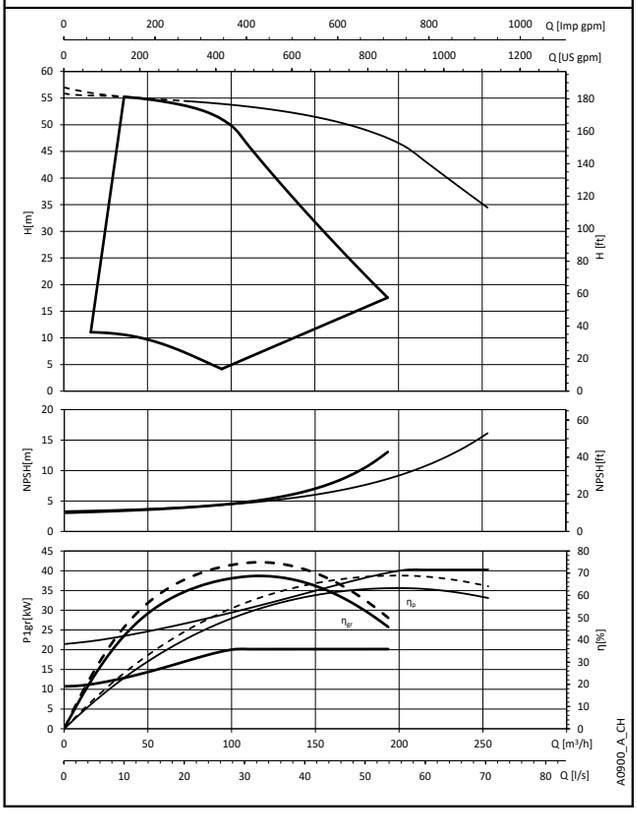
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

e-LNT..X, e-LNT..K SERIES
OPERATING CHARACTERISTICS

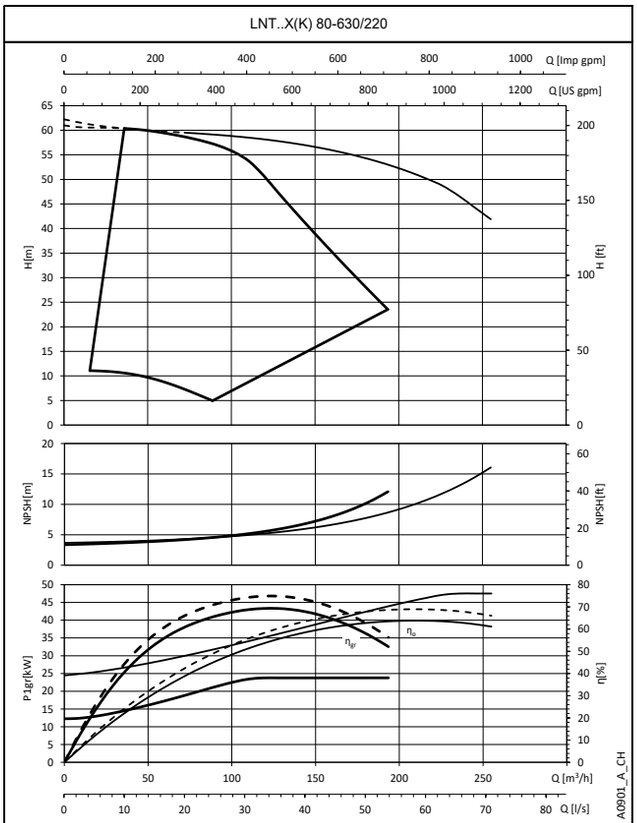
LNT..X(K) 80-520/150



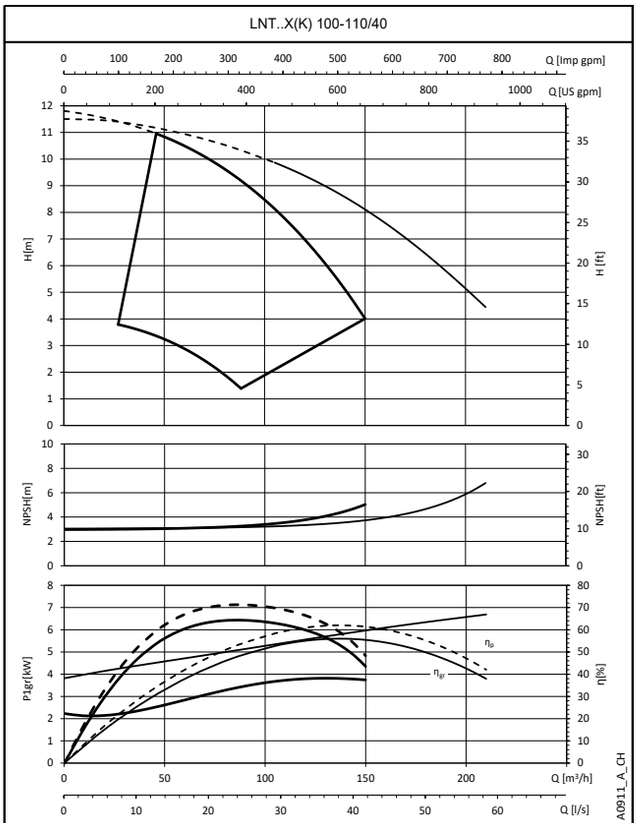
LNT..X(K) 80-570/185



LNT..X(K) 80-630/220



LNT..X(K) 100-110/40



These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

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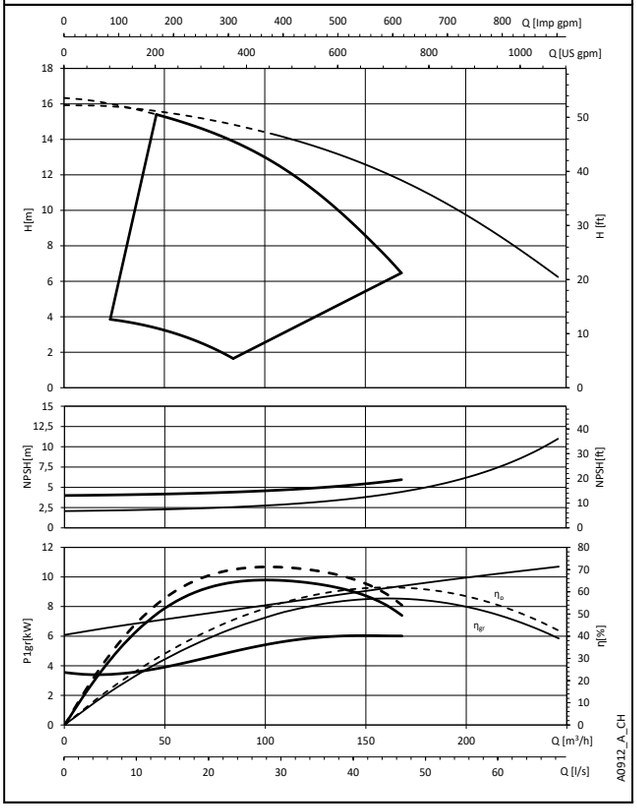
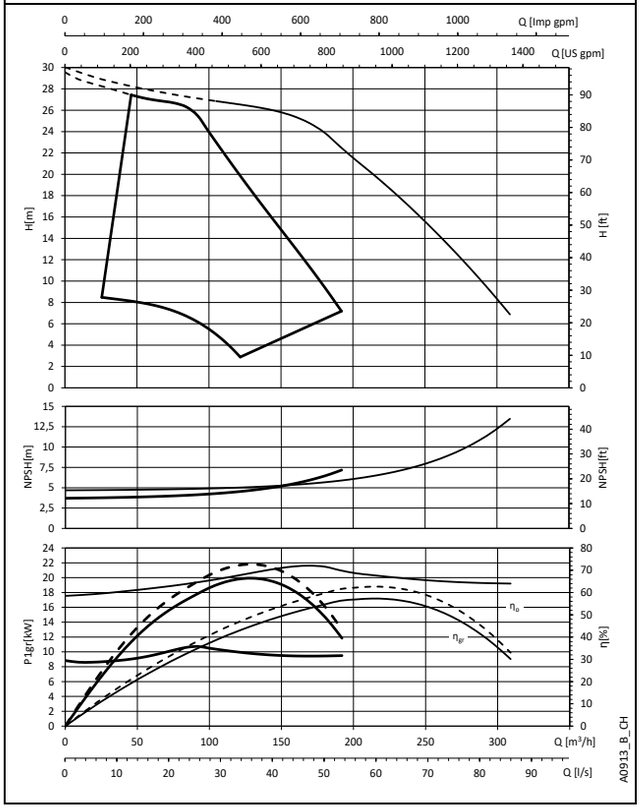
e-LNT..X, e-LNT..K SERIES
OPERATING CHARACTERISTICS

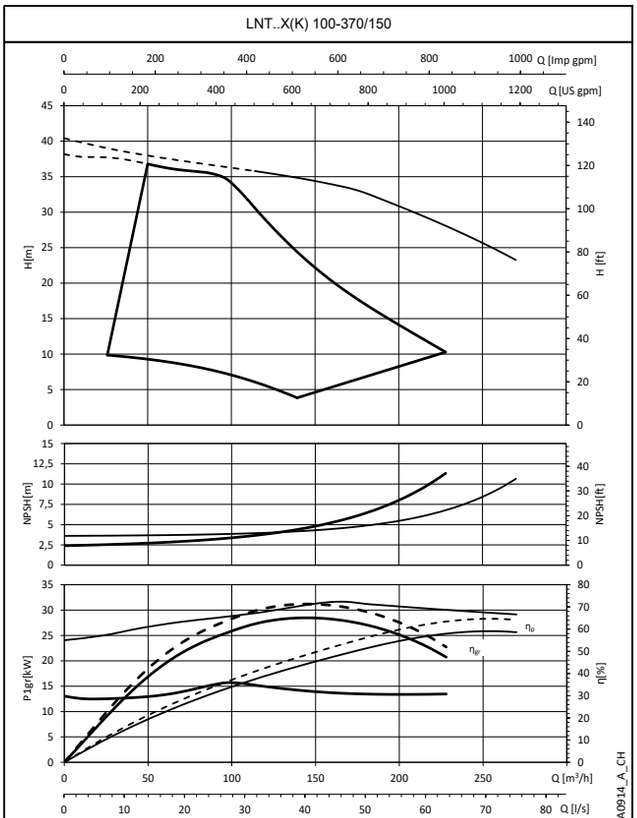
LNT..X(K) 100-150/55



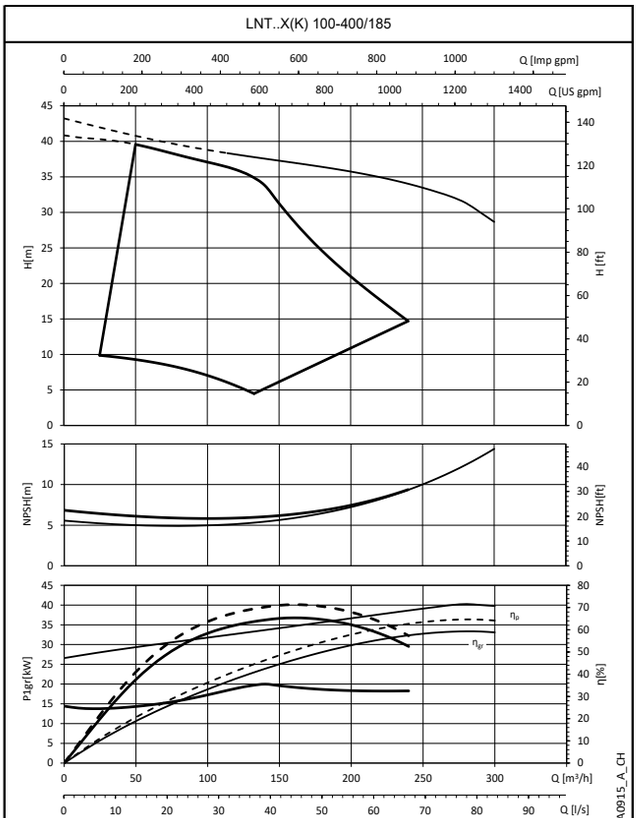
LNT..X(K) 100-280/110



LNT..X(K) 100-370/150

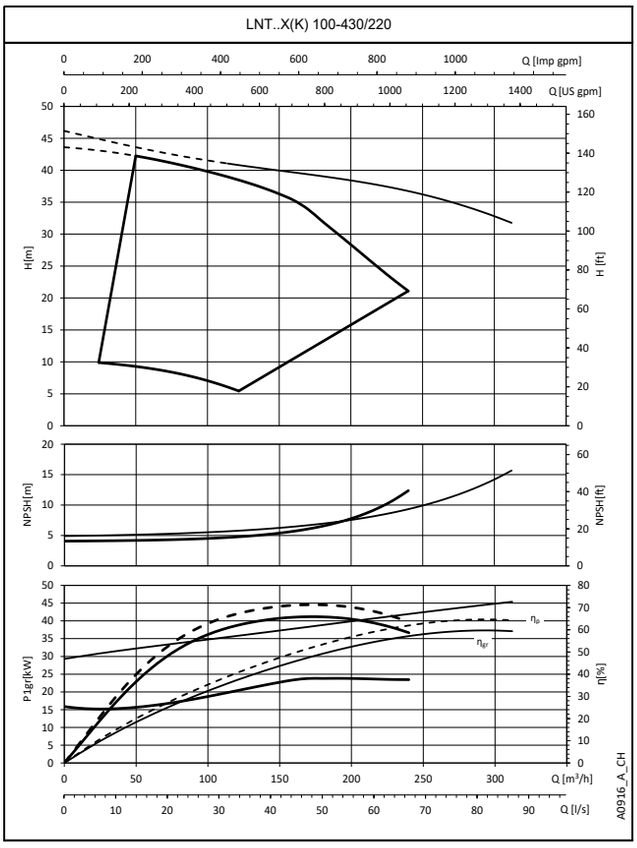


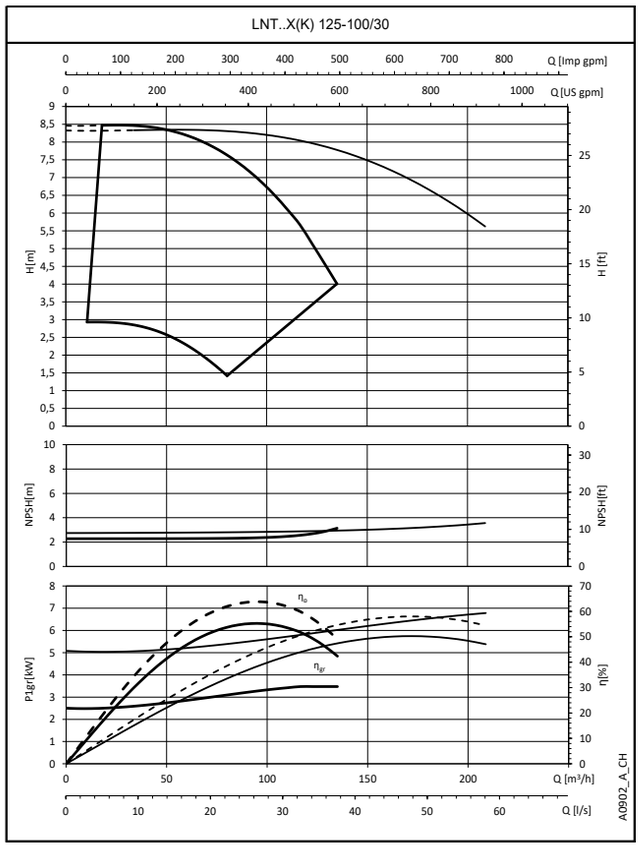
LNT..X(K) 100-400/185

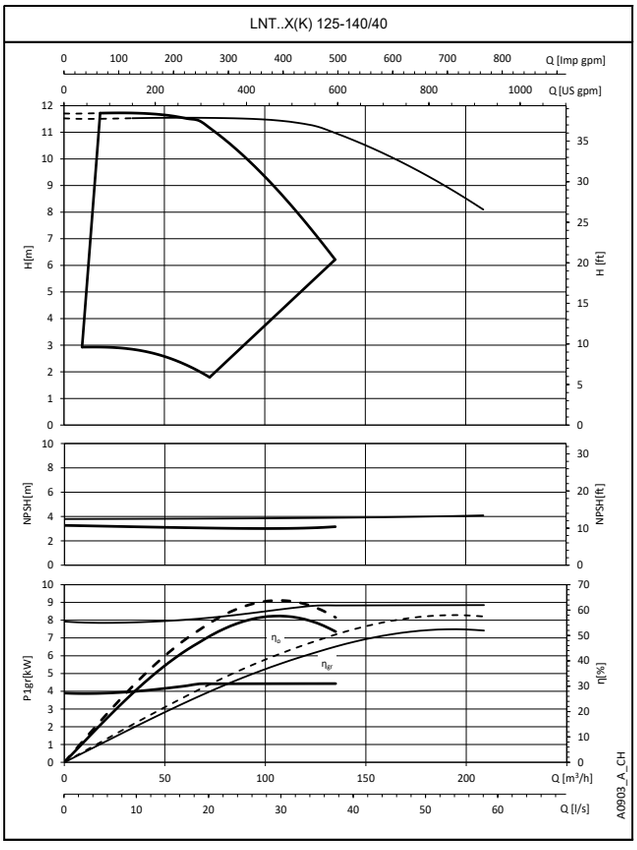


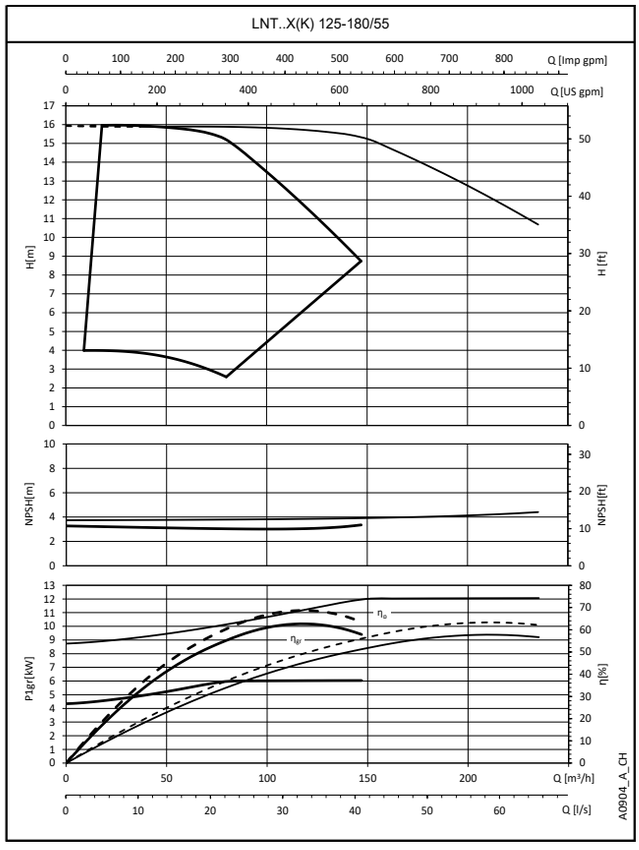
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

e-LNT..X, e-LNT..K SERIES
OPERATING CHARACTERISTICS





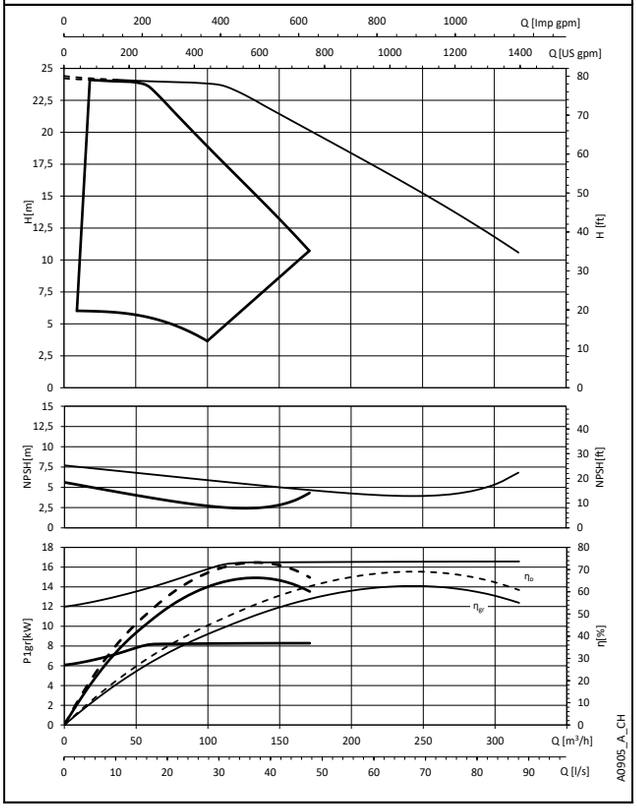




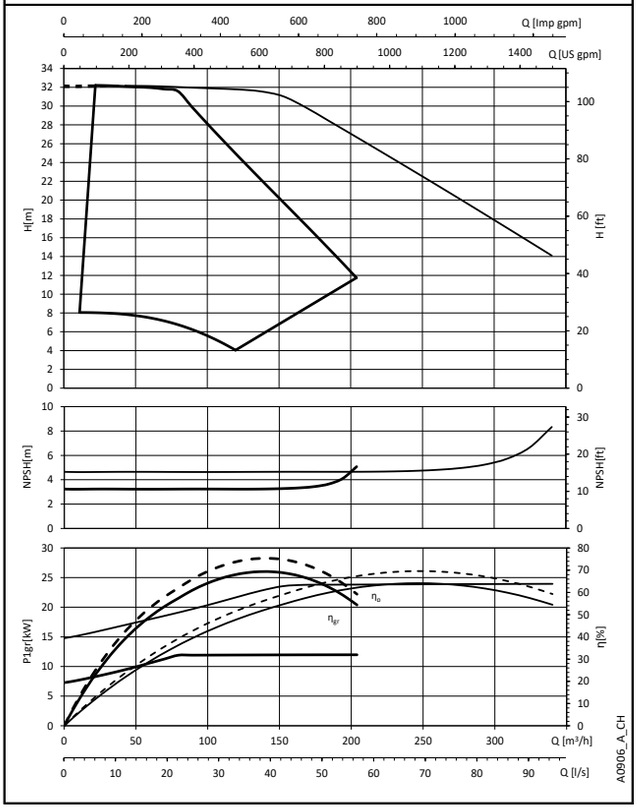
These performances are valid for liquids with density $\rho = 1.0$ kg/dm³ and kinematic viscosity $\nu = 1$ mm²/sec.

e-LNT..X, e-LNT..K SERIES
OPERATING CHARACTERISTICS

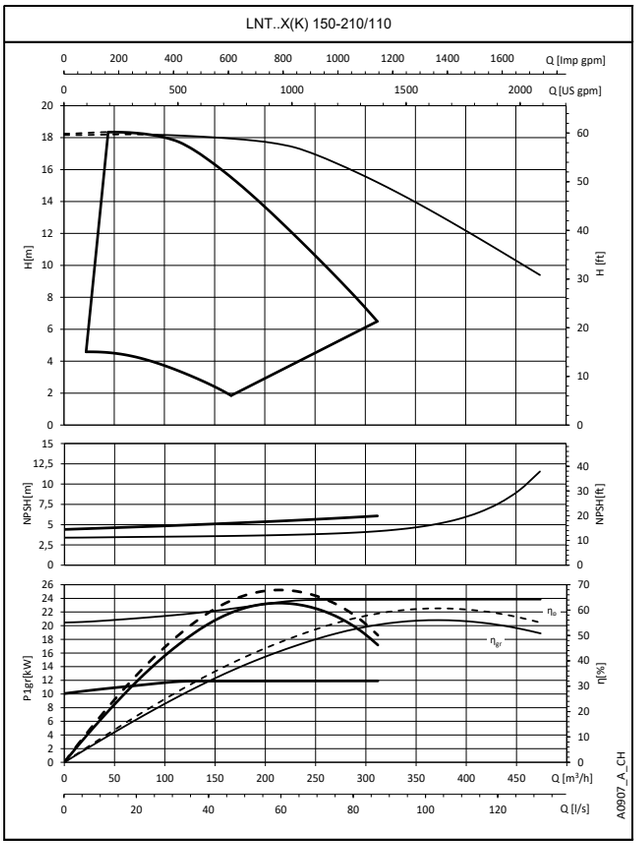
LNT..X(K) 125-270/75



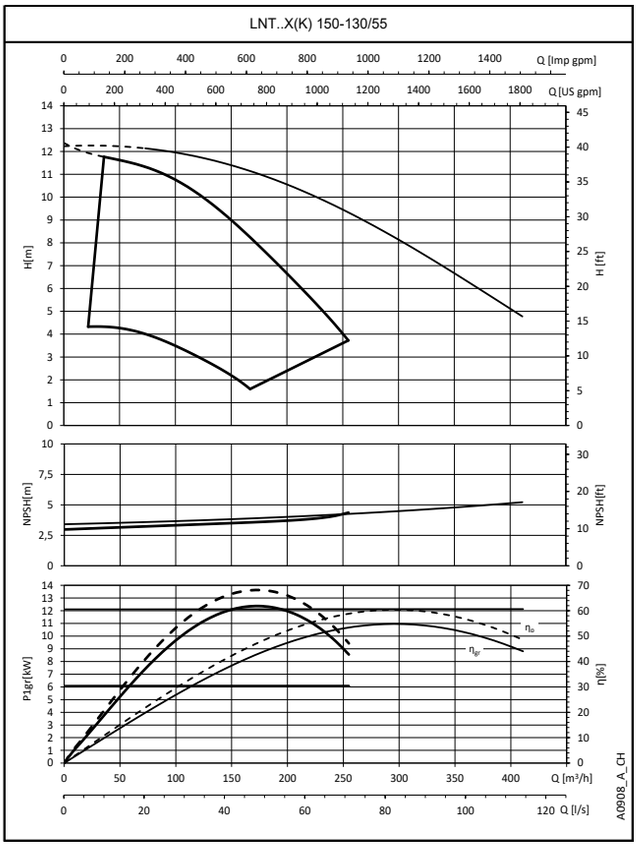
LNT..X(K) 125-340/110



LNT..X(K) 150-210/110



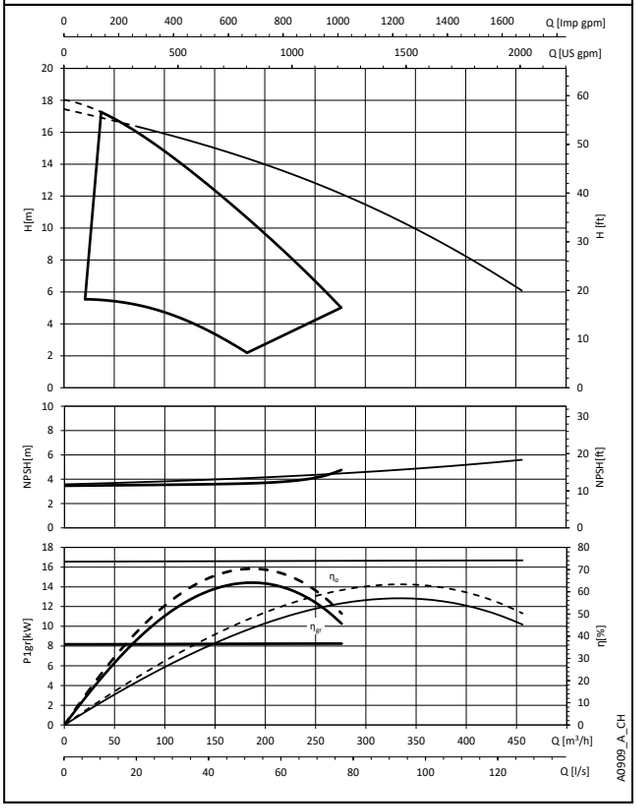
LNT..X(K) 150-130/55



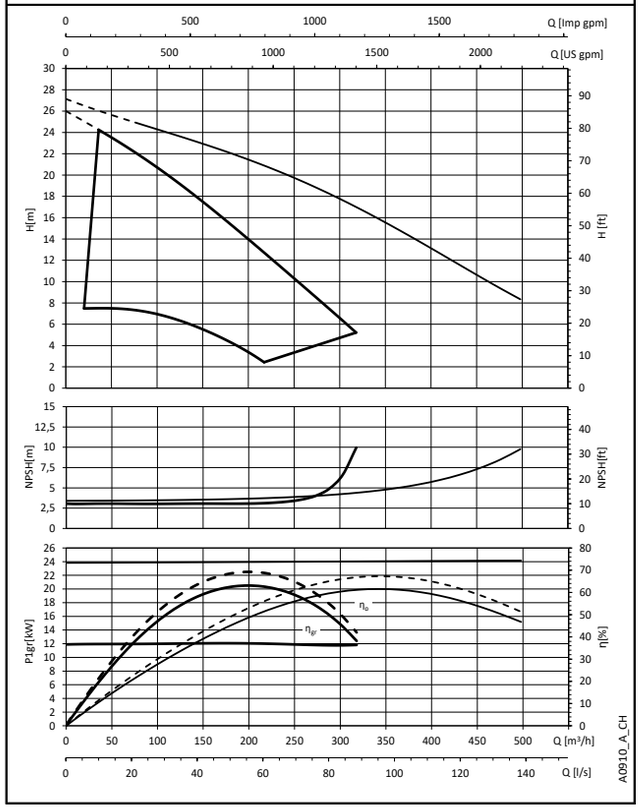
These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

e-LNT..X, e-LNT..K SERIES
OPERATING CHARACTERISTICS

LNT..X(K) 150-170/75

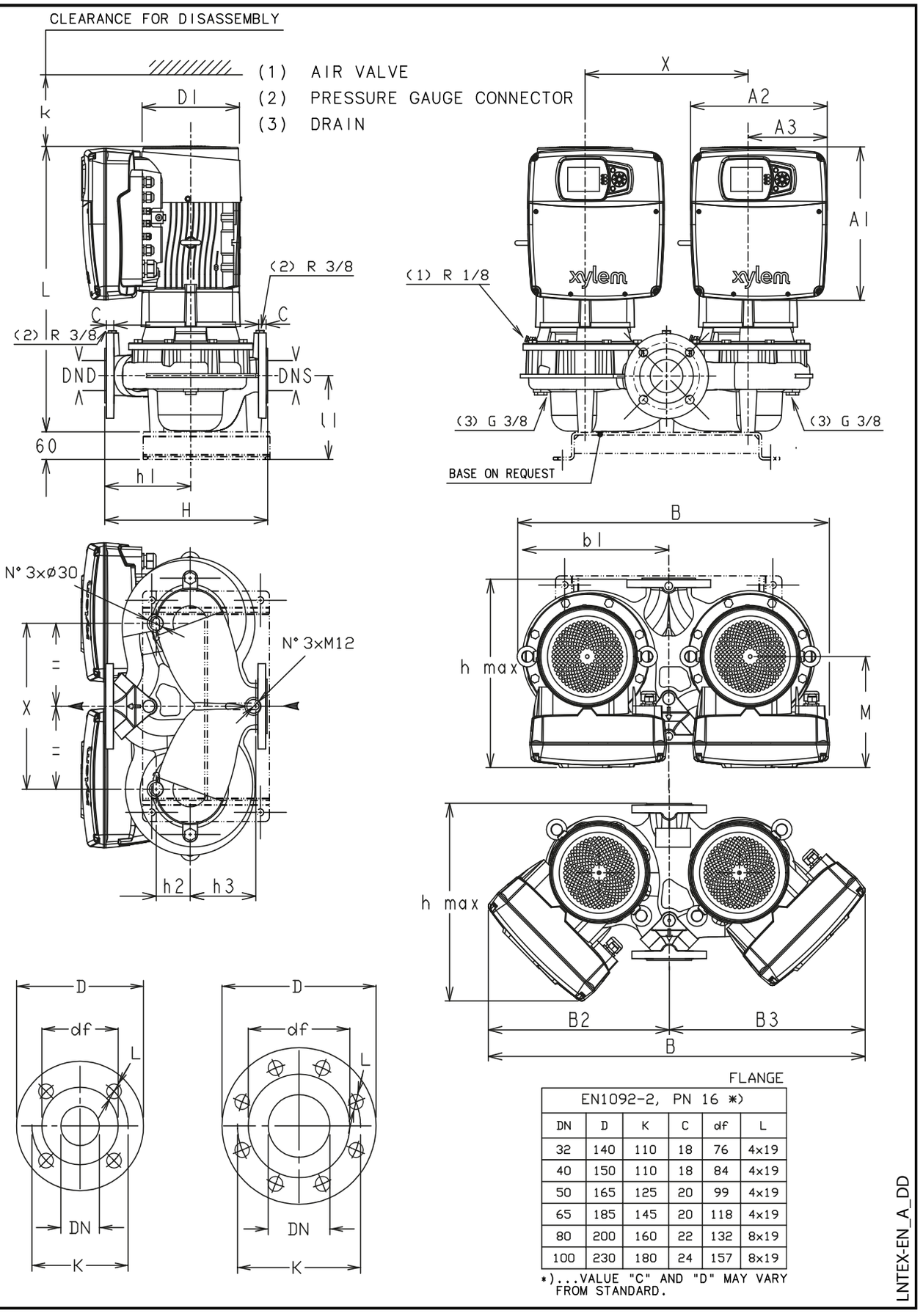


LNT..X(K) 150-270/110



These performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

e-LNTEX, e-LNTEK SERIES
DIMENSIONS AND WEIGHTS



FLANGE

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

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

LNTEX-EN_A_DD

LOWARA
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e-LNTEX, e-LNTEK SERIES
DIMENSIONS AND WEIGHTS

PUMP TYPE LNTEX LNTEK	MOTOR kW	MOTOR Size	DIMENSIONS (mm) PUMP DND	DNS	b1	l1	H	h1	h2	MOTOR h3	IEC	D1	A1	A2	A3	M	hmax	B	B2	B3	L	k	WEIGHT kg
32-480	3	B	32	32	257	90	320	180	40	110	100	179	289	256	149	194	334	704	337	367	514	300	83
40-420	3	B	40	40	275	100	320	180	52	110	100	179	289	256	149	194	334	585	-	-	539	300	87
40-470	4	B	40	40	275	100	320	180	52	110	112	179	289	256	149	194	334	585	-	-	539	300	92
40-720	7,5	C	40	40	373	110	440	220	65	193	132	220	329	302	175	241	461	752	-	-	598	300	153
40-810	11	C	40	40	373	110	440	220	65	193	132	220	329	302	175	241	461	752	-	-	598	300	165
50-320	3	B	50	50	275	116	340	190	57	120	100	179	289	256	149	194	344	585	-	-	555	300	96
50-390	4	B	50	50	275	116	340	190	57	120	112	179	289	256	149	194	344	585	-	-	555	300	94
50-490	5,5	C	50	50	275	116	340	190	57	120	132	220	329	302	175	241	391	832	399	433	607	300	119
50-590	7,5	C	50	50	275	116	340	190	57	120	132	220	329	302	175	241	391	832	399	433	607	300	130
50-720	11	C	50	50	373	115	440	230	60	185	132	220	329	302	175	241	451	752	-	-	607	300	177
65-190	3	B	65	65	323	122	360	190	75	140	100	179	289	256	149	194	364	652	-	-	567	300	108
65-340	5,5	C	65	65	323	122	360	190	75	140	132	220	329	302	175	241	411	690	-	-	619	300	131
65-360	7,5	C	65	65	323	122	360	190	75	140	132	220	329	302	175	241	411	690	-	-	619	300	142
65-490	11	C	65	65	323	122	360	190	75	140	132	220	329	302	175	241	411	690	-	-	619	300	154
65-770	18,5	D	65	65	378	118	475	250	76	196	160	260	400	362	205	312	537	805	-	-	698	300	256
80-210	4	B	80	80	374	133	420	235	80	110	112	179	289	256	149	194	420	748	-	-	572	300	145
80-320	5,5	C	80	80	374	133	420	235	80	110	132	220	329	302	175	241	426	754	-	-	624	300	170
80-410	7,5	C	80	80	374	133	420	235	80	110	132	220	329	302	175	241	426	754	-	-	624	300	181
80-500	11	C	80	80	374	133	420	235	80	110	160	220	329	302	175	241	426	754	-	-	624	300	197
80-520	15	D	80	80	374	133	420	235	80	110	160	260	400	362	205	312	497	795	-	-	713	300	244
80-570	18,5	D	80	80	374	133	420	235	80	110	160	260	400	362	205	312	497	795	-	-	713	300	264
80-630	22	D	80	80	374	133	420	235	80	110	180	260	400	362	205	312	497	795	-	-	713	300	290
100-110	4	C	100	100	374	158	500	280	87	125	112	220	329	302	175	241	500	754	-	-	639	300	194
100-150	5,5	C	100	100	374	158	500	280	87	125	132	220	329	302	175	241	500	754	-	-	654	300	210
100-280	11	D	100	100	374	158	500	280	87	125	160	220	400	362	205	312	532	795	-	-	743	300	238
100-370	15	D	100	100	374	158	500	280	87	125	160	260	400	362	205	312	532	795	-	-	743	300	256
100-400	18,5	D	100	100	374	158	500	280	87	125	160	260	400	362	205	312	532	795	-	-	743	300	276
100-430	22	D	100	100	374	158	500	280	87	125	180	260	400	362	205	312	532	795	-	-	743	300	290

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

LNTEX-en_b_td

LOWARA
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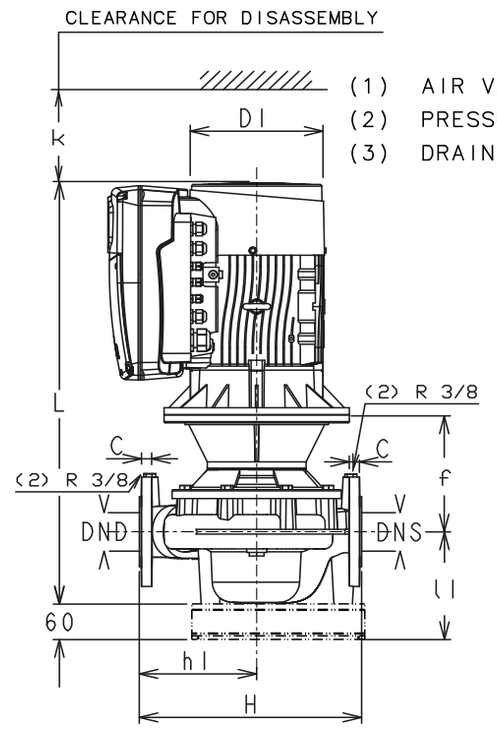
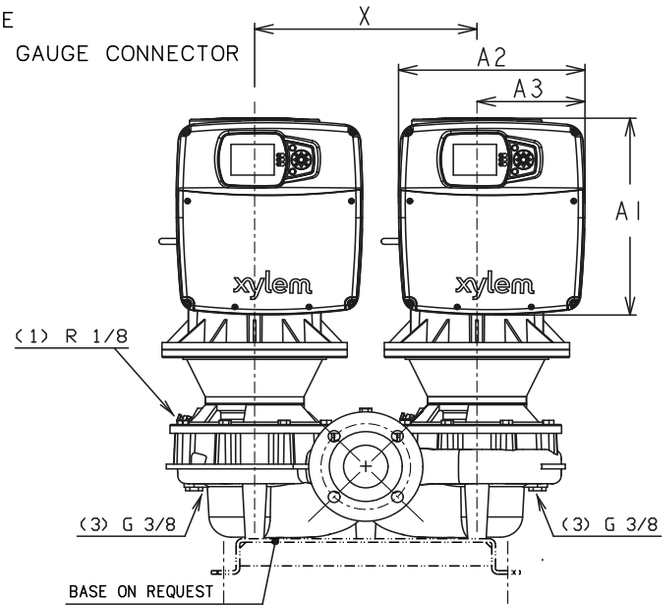
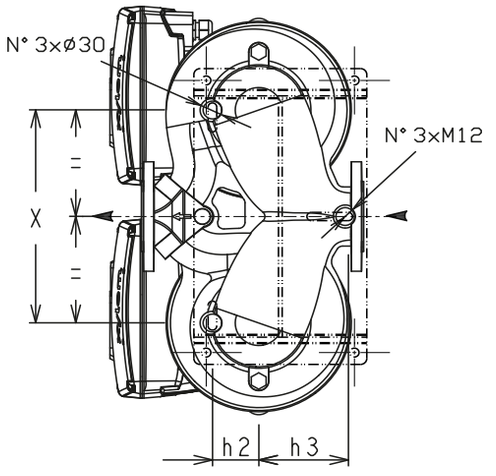
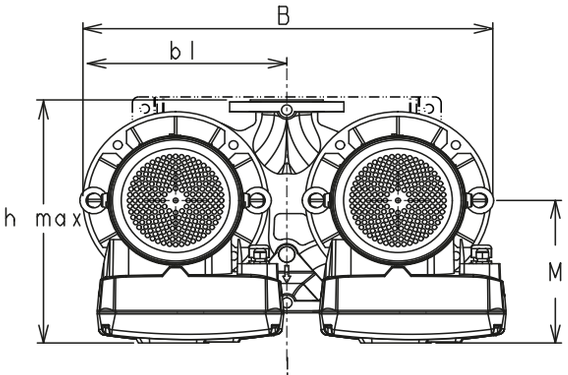
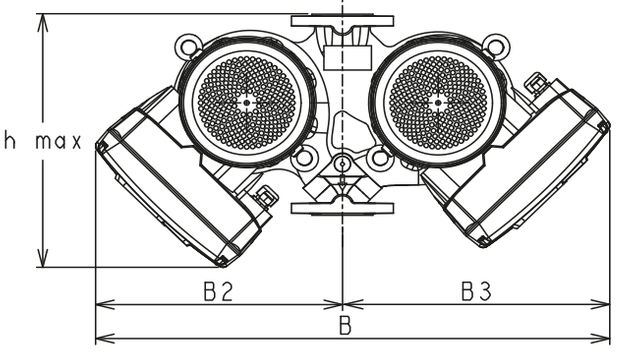
e-LNTSX, e-LNTSK SERIES
DIMENSIONS AND WEIGHTS

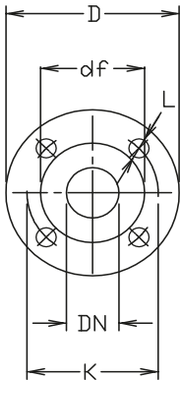


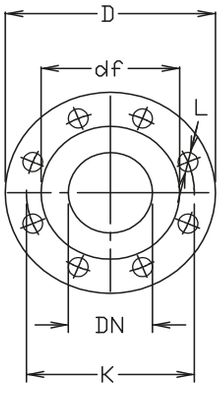












FLANGE

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

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

LNTSX1-EN_A_DD

LOWARA
a xylem brand

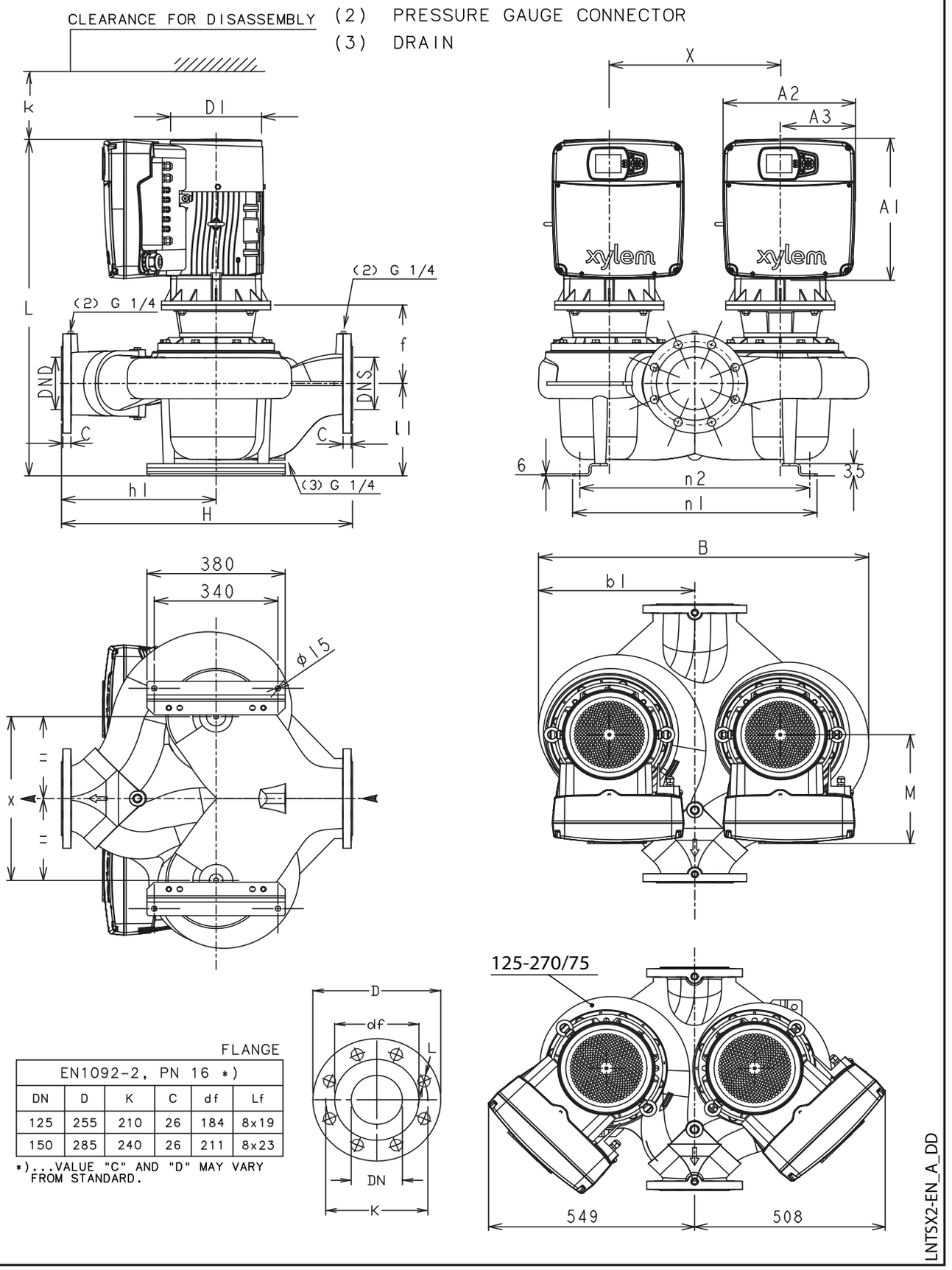
e-LNTSX, e-LNTSK SERIES
DIMENSIONS AND WEIGHTS

PUMP TYPE LNTSX / LNTSK	MOTOR		DIMENSIONS (mm)																						WEIGHT
			PUMP									MOTOR													
	kW	Size	DND	DNS	b1	f	l1	H	h1	h2	h3	IEC	D1	A1	A2	A3	M	hmax	B	B2	B3	L	k	kg
32-480	3	B	32	32	257	165	90	320	180	40	110	100	179	289	256	149	194	334	704	337	367	594	300	94
40-420	3	B	40	40	275	165	100	320	180	52	110	100	179	289	256	149	194	334	585	-	-	601	300	96
40-470	4	B	40	40	275	165	100	320	180	52	110	112	179	289	256	149	194	334	585	-	-	601	300	100
40-600	5,5	C	40	40	275	192	100	320	180	52	110	132	220	329	302	175	241	381	832	399	433	683	300	127
40-720	7,5	C	40	40	373	190	110	440	220	65	193	132	220	329	302	175	241	461	752	-	-	690	300	168
40-810	11	C	40	40	373	220	110	440	220	65	193	160	220	329	302	175	241	461	760	-	-	735	300	194
50-320	3	B	50	50	275	165	116	340	190	57	120	100	179	289	256	149	194	344	585	-	-	620	300	105
50-390	4	B	50	50	275	165	116	340	190	57	120	112	179	289	256	149	194	344	585	-	-	620	300	109
50-490	5,5	C	50	50	275	192	116	340	190	57	120	132	220	329	302	175	241	391	832	399	433	699	300	135
50-590	7,5	C	50	50	275	192	116	340	190	57	120	132	220	329	302	175	241	391	832	399	433	699	300	145
50-720	11	C	50	50	373	222	115	440	230	60	185	160	220	329	302	175	241	451	760	-	-	743	300	206
50-800	15	D	50	50	373	222	115	440	230	60	185	160	260	400	362	205	312	522	795	-	-	817	300	246
50-900	18,5	D	50	50	373	222	115	440	230	60	185	160	260	400	362	205	312	522	795	-	-	817	300	262
65-190	3	B	65	65	323	171	122	360	190	75	140	100	179	289	256	149	194	364	652	-	-	632	300	117
65-300	4	B	65	65	323	171	122	360	190	75	140	112	179	289	256	149	194	364	652	-	-	632	300	121
65-340	5,5	C	65	65	323	198	122	360	190	75	140	132	220	329	302	175	241	411	690	-	-	711	300	149
65-360	7,5	C	65	65	323	198	122	360	190	75	140	132	220	329	302	175	241	411	690	-	-	711	300	158
65-490	11	C	65	65	323	228	122	360	190	75	140	160	220	329	302	175	241	411	710	-	-	756	300	193
65-610	15	D	65	65	323	228	122	360	190	75	140	160	260	400	362	205	312	482	1022	494	528	830	300	233
65-770	18,5	D	65	65	378	222	118	475	250	76	196	160	260	400	362	205	312	537	805	-	-	820	300	270
80-210	4	B	80	80	374	165	133	420	235	80	110	112	179	289	256	149	194	420	648	-	-	637	300	151
80-320	5,5	C	80	80	374	192	133	420	235	80	110	132	220	329	302	175	241	426	754	-	-	716	300	178
80-410	7,5	C	80	80	374	192	133	420	235	80	110	132	220	329	302	175	241	426	754	-	-	716	300	187
80-500	11	C	80	80	374	222	133	420	235	80	110	160	220	329	302	175	241	426	754	-	-	716	300	222
80-520	15	D	80	80	374	222	133	420	235	80	110	160	260	400	362	205	312	497	795	-	-	835	300	262
80-570	18,5	D	80	80	374	222	133	420	235	80	110	160	260	400	362	205	312	497	795	-	-	835	300	278
80-630	22	D	80	80	374	222	133	420	235	80	110	180	260	400	362	205	312	497	795	-	-	835	300	289
100-110	4	C	100	100	374	170	158	500	280	87	125	112	220	329	302	175	241	500	754	-	-	704	300	227
100-150	5,5	C	100	100	374	197	158	500	280	87	125	132	220	329	302	175	241	500	754	-	-	746	300	224
100-280	11	D	100	100	374	227	158	500	280	87	125	160	260	400	362	205	312	532	795	-	-	865	300	260
100-370	15	D	100	100	374	227	158	500	280	87	125	160	260	400	362	205	312	532	795	-	-	865	300	274
100-400	18,5	D	100	100	374	227	158	500	280	87	125	160	260	400	362	205	312	532	795	-	-	865	300	290
100-430	22	D	100	100	374	227	158	500	280	87	125	180	260	400	362	205	312	532	795	-	-	865	300	301

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

LNTSX1-en_a_td

e-LNTSX, e-LNTSK SERIES
DIMENSIONS AND WEIGHTS



FLANGE

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

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

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e-LNTSX, e-LNTSK SERIES
DIMENSIONS AND WEIGHTS

PUMP TYPE LNTSX / LNTSK	MOTOR		DIMENSIONS (mm)																			WEIGHT
			PUMP							MOTOR												
	kW	Size	DND	DNS	b1	f	l1	H	h1	IEC	D1	A1	A2	A3	M	hmax	B	n1	n2	L	k	kg
125-100	3	C	125	125	365	183	200	620	340	100	220	329	302	175	241	620	776	572	532	794	300	244
125-140	4	C	125	125	365	183	200	620	340	112	220	329	302	175	241	620	776	572	532	794	300	287
125-180	5,5	C	125	125	365	210	200	620	340	132	220	329	302	175	241	620	776	572	532	836	300	274
125-270	7,5	D	125	125	365	210	200	620	340	132	260	400	362	205	312	620	1104	572	532	920	300	328
125-340	11	D	125	125	516	245	230	800	450	160	260	400	362	205	312	800	1030	652	612	990	300	431
150-130	5,5	C	150	150	478	225	230	800	425	132	220	329	302	175	241	800	908	672	632	881	300	374
150-170	7,5	D	150	150	478	225	230	800	425	132	260	400	362	205	312	800	908	672	632	965	300	415
150-210	11	D	150	150	478	255	230	800	425	160	260	400	362	205	312	800	908	672	632	1000	300	434
150-270	11	D	150	150	465	240	230	800	450	160	260	400	362	205	312	800	881	632	592	985	300	408

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

LNTSX2-en_a_td

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e-LNT..H
e-LNT WITH HYDROVAR

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

Background and context

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

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

Benefits of e-LNT with HYDROVAR

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

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

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

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

Examples:
LNEE**H**50-125/22/P25VCS4 **/2**
LNEE**H**50-125/22/P25VCS4 **/3**
LNEE**H**50-125/22/P25VCS4 **/4C**

H = with integrated HYDROVAR
/2 = HYDROVAR HVL**2**.022 1~ 208-240 V (50/60 Hz)
/3 = HYDROVAR HVL**3**.022 3~ 208-240 V (50/60 Hz)
/4 = HYDROVAR HVL**4**.022 3~ 380-460 V (50/60 Hz)

Other options:
C = Premium Card.

Key Features of the Hydrovar

- **No need for additional pressure sensors**:
  The e-LNT..H pumps are fitted as standard with two pressure transmitters for each Hydrovar, four in all, normally mounted on the flanges.
- **No need for special pumps or motors**.
- **e-LNT..H is already pre-wired**.
- **No need for IN LINE filters**.
  Hydrovar already includes the THDi filter embedded as standard.
- **No need for bypass or safety systems**:
  The e-LNT..H will immediately switch off when demand drops to zero or when it exceeds maximum pump capacity; thus making installation of additional safety devices unnecessary.
- **Anti-condensation device**:
  The HYDROVAR is fitted with anti-condensation devices which switch on when the pump is in standby in order to prevent condensation forming in the unit.

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

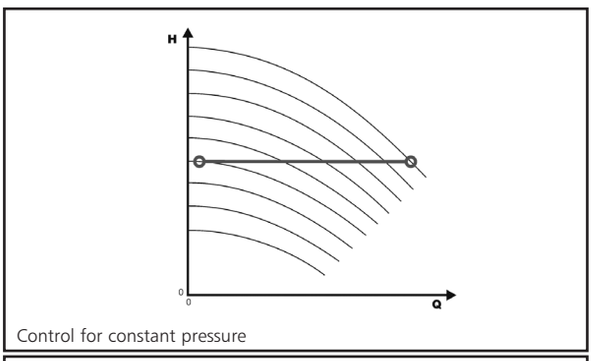
The basic function of the HYDROVAR device is to control the pump to meet the system demands.

HYDROVAR performs these functions by:

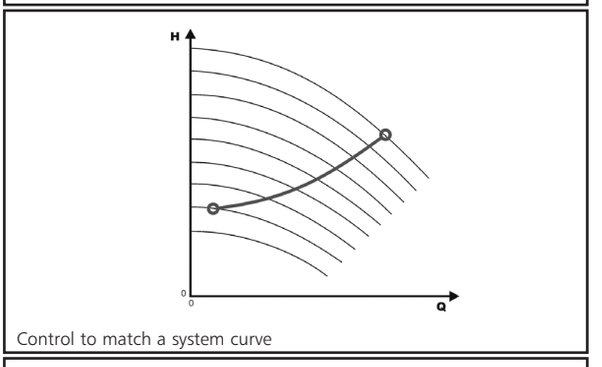
1) Measuring the system pressure or flow via a transmitter mounted on the pump's delivery side.
2) Calculating the motor speed to maintain the correct flow or pressure.
3) Sending out a signal to the pump to start the motor, increase speed, decrease speed or stop.
4) In the case of multiple pump installations,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

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

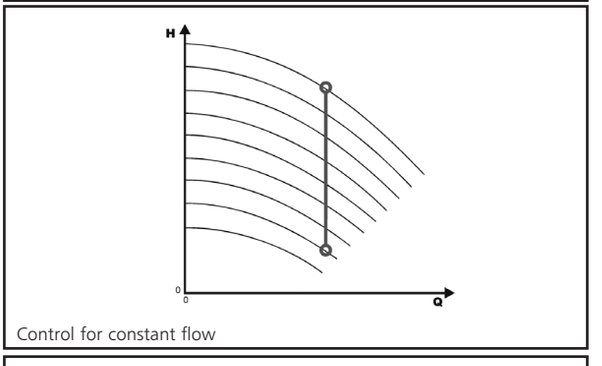
- Stop the pump(s) at zero demand.
- Stop the pump(s) in case of water failure on the suction side (protection against dry running).
- Stop the pump if the required delivery exceeds the pump's capacity (protection against cavitation caused by excessive demand), or automatically switch on the next pump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



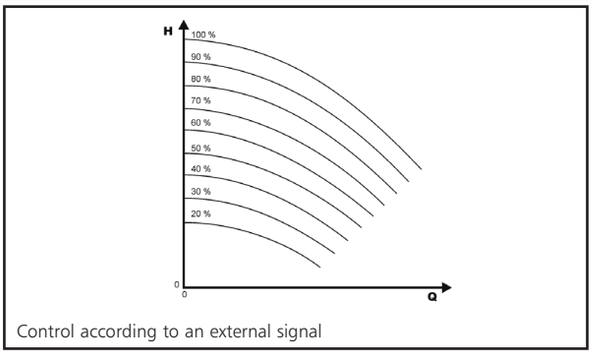
Control for constant pressure



Control to match a system curve



Control for constant flow



Control according to an external signal

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e-LNT..H SERIES
HYDROVAR (ErP 2009/125/EC)

From 1 July 2021 in accordance with the new **Regulations (EU) 2019/1781** and **2021/341** the **variance speed drives** with **three-phase input/output current**, rated voltage between **100 V** and **1000 V**, rated for operating with motors included in the same regulation (**0,12- 1000 kW**), must have efficiency level **IE2**.
The tables below also contain the mandatory information pursuant to Annex I, section 4, of the Regulations.

PN	Phase	UNin	Pa	Power losses (PL) with 10 KHz frequency % Pa (% rated speed; % rated torque)									
kW		V	kVA	stand-by	0;25	0;50	0;100	50;25	50;50	50;100	90;50	90;100	IE
1,5	~1	208-240	not included in regulation										
2,2													
3													
4													
1,5	~3	208-240	2,45	0,4%	1,3%	1,6%	1,9%	1,4%	1,7%	2,5%	2,0%	3,1%	2
2,2			3,46	0,3%	1,3%	1,6%	2,4%	1,4%	1,8%	2,7%	2,0%	3,3%	
3			5,15	0,2%	1,1%	1,4%	2,2%	1,3%	1,7%	2,6%	1,9%	3,2%	
4			6,00	0,2%	1,1%	1,3%	2,1%	1,3%	1,6%	2,5%	1,9%	3,1%	
5,5			7,90	0,1%	0,9%	1,1%	1,8%	1,0%	1,4%	2,4%	1,7%	3,2%	
7,5			10,1	0,1%	0,7%	0,9%	1,5%	0,8%	1,1%	2,1%	1,4%	3,1%	
11			15,1	0,1%	0,7%	0,9%	1,7%	0,8%	1,2%	2,3%	1,4%	3,0%	
1,5		380-460	2,56	0,4%	1,2%	1,5%	1,8%	1,3%	1,6%	2,1%	1,6%	2,3%	
2,2			3,67	0,3%	1,2%	1,3%	1,7%	1,3%	1,5%	2,1%	1,6%	2,3%	
3			5,00	0,2%	1,1%	1,1%	1,5%	1,2%	1,4%	2,1%	1,5%	2,2%	
4			6,20	0,2%	1,0%	0,9%	1,4%	1,1%	1,4%	2,0%	1,4%	2,2%	
5,5			8,30	0,2%	0,8%	0,8%	1,3%	0,9%	1,2%	1,9%	1,3%	2,2%	
7,5			10,7	0,1%	0,7%	0,6%	1,2%	0,7%	1,0%	1,8%	1,2%	2,3%	
11			15,9	0,1%	0,6%	0,6%	1,2%	0,7%	1,0%	1,8%	1,2%	2,2%	
15			21,5	0,1%	0,5%	0,6%	1,2%	0,6%	0,9%	1,6%	1,1%	2,0%	
18,5			25,6	0,1%	0,5%	0,6%	1,2%	0,6%	0,8%	1,6%	1,0%	1,9%	
22			29,4	0,0%	0,5%	0,7%	1,3%	0,6%	0,9%	1,6%	1,0%	2,1%	

hvl-pl-en_a_te

P_N	~	U_{Nin}	Manufacturer: Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore (VI) - Italia	f_{Nin}	I_{Nin}	U_{nout}	f_{Nout}	I_{nout}	Operating conditions*		
									Altitude	T.amb	ATEX
kW		V	Model	Hz	A	V	Hz	A	m	°C	
1,5	1	208-240	HVL 2.015-..	50/60	11,6	0-100% U_{Nin}	15-70	7,5	≤1000	-15/40	No
2,2			HVL 2.022-..		1			15,1			
3			HVL 2.030-..		22,3			14,3			
4			HVL 2.040-..		27,6			16,7			
1,5	3	208-240	HVL 3.015-..		7			7,5			
2,2			HVL 3.022-..		9,1			10			
3			HVL 3.030-..		13,3			14,3			
4			HVL 3.040-..		16,5			16,7			
5,5			HVL 3.055-..		23,5			24,2			
7,5			HVL 3.075-..		29,6			31			
11			HVL 3.110-..		3			43,9			
1,5		380-460	HVL 4.015-..		3,9			4,1			
2,2			HVL 4.022-..		5,3			5,7			
3			HVL 4.030-..		7,2			7,3			
4			HVL 4.040-..		10,1			10			
5,5			HVL 4.055-..		12,8			13,5			
7,5			HVL 4.075-..		16,9			17			
11			HVL 4.110-..		24,2			24			
15			HVL 4.150-..		33,3			32			
18,5			HVL 4.185-..		38,1			38			
22			HVL 4.220-..		44,7			44			

*up to 2000 meters or maximum 55°C reducing the supplied power

hvl-en_b_te

HYDROVAR HVL
IDENTIFICATION CODE

HVL4.075-A0010

Name [3 digits]
[HVL] = HYDROVAR® generation L

Power supply [2 digits]
[2.] = 1~ 208-240 V (50/60 Hz)
[3.] = 3~ 208-240 V (50/60 Hz)
[4.] = 3~ 380-460 V (50/60 Hz)

Rated output power
[3 digits]
kW x 10

Other options [1 digit]
[0] = reserved for future use

Display [1 digit]
[0] = reserved for future use
[1] = Internal display installed as standard

Optional cards [1 digit]
[0] = no optional cards (as standard)
[1] = Premium Card (option supplied loose)

Bus communication [1 digit]
0 = Standard Communication (Modbus, Bacnet)
1 = reserved for future use
2 = reserved for future use
3 = reserved for future use
4 = reserved for future use
5 = reserved for future use
6 = reserved for future use

Enclosure class (IP class) [1 digit]
[A] = IP55 (Type1)
[B] = reserved for future use

EXAMPLE: **HVL4.075-A0010**

HVL=HYDROVAR generation L, **4.**=3~ 380-460 V power supply, **075**=7,5kW rated output power, **A**=IP55 (Type1) enclosure class, **0**=Standard Bus communication, **0**=no optional card, **1**=internal display installed, **0**=no other options installed.
NOTE: HYDROVAR output voltage is three phase.

DIMENSIONS AND WEIGHTS

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

HVL_dim-en_b_td

HYDROVAR HVL
EMC COMPATIBILITY

EMC requirements

HYDROVAR fulfills the product standard EN61800-3:2004 + A1:2012, which defines categories (C1 to C4) for device application areas.
Depending on the motor cable length, a classification of HYDROVAR by category (based on EN61800-3) is reported in the following tables:

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

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

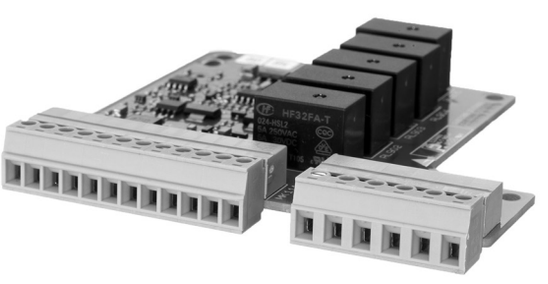
En-Rev_A

CARD

Premium Card HYDROVAR

For the e-LNE..H and e-LNT..H series, the Premium Card comes fitted as option on the standalone HYDROVAR.
This allows to control up to five fix speed pumps via an external panel.
The Premium Card will allow additional features listed below:

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



OPTIONAL COMPONENTS

Sensors

The following sensors are available for HYDROVAR:

a. Pressure-transducer
b. Differential pressure-transducer
c. Temperature-sensor
d. Flow indicator (orifice plate, inductive flow meter)
e. Level-sensor.

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

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

NF = Non Feasible, only Wall Mounting KIT version.

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

LNTH-HVL_models-2p50-en_c_sc

LEGEND

LNTEH : Extended shaft with HYDROVAR (twin version).

LNTSH : Stub shaft with HYDROVAR (twin version).

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

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

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

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

LNTH-HVL_models-4p50-en_c_sc

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

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

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

LNTH-HVL-2p50-en_b_te

Nominal current LNT supplied by HVL at 50Hz

* Nominal current of wall mounting kit is included

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

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

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

LNTH-HVL-4p50-en_b_te

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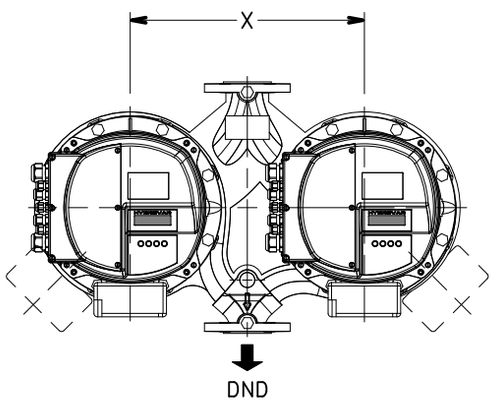
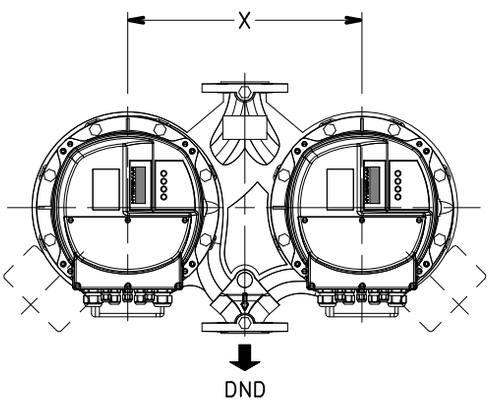
e-LNT..H SERIES
HYDROVAR HVL DISPLAY POSITION



POSITION 1-9



POSITION 7-15

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

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

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

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

HVL_LNT-pos-en_b_td

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

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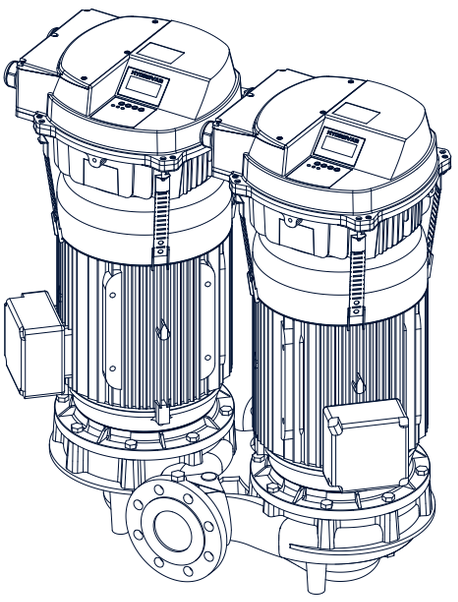
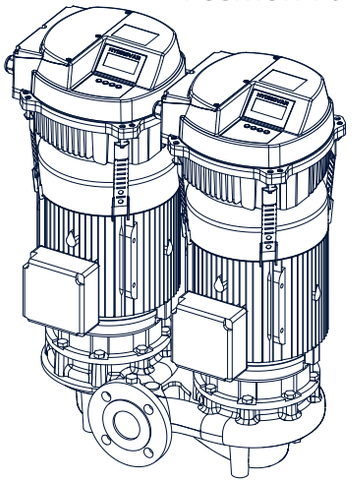
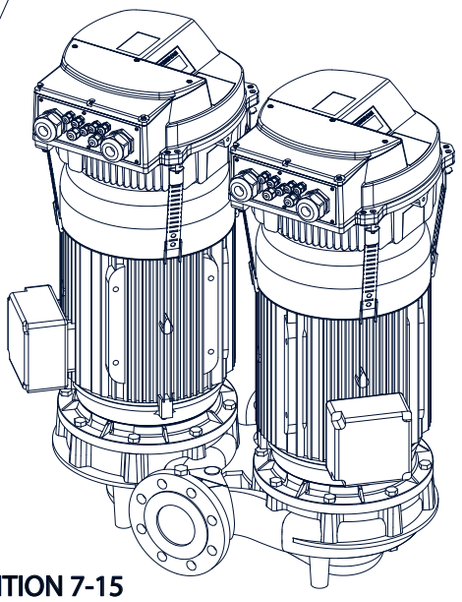
e-LNT..H SERIES
HYDROVAR HVL DISPLAY POSITION

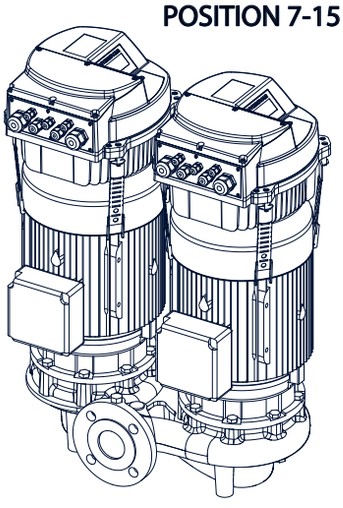


POSITION 1-9



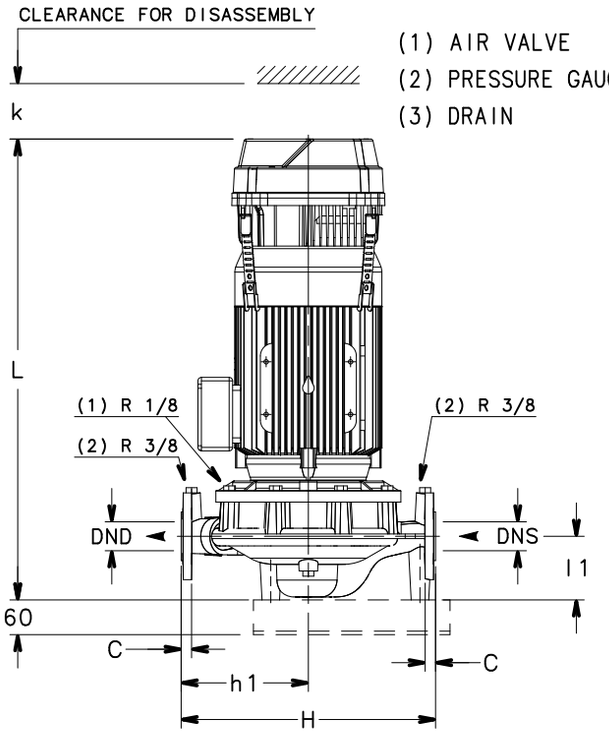


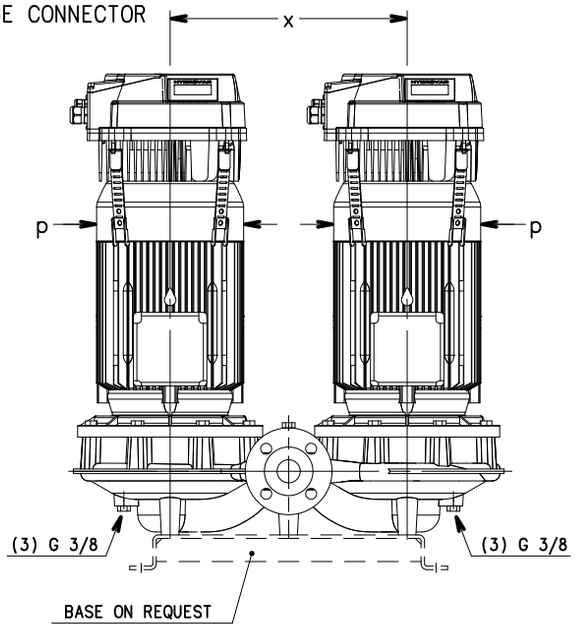
POSITION 7-15

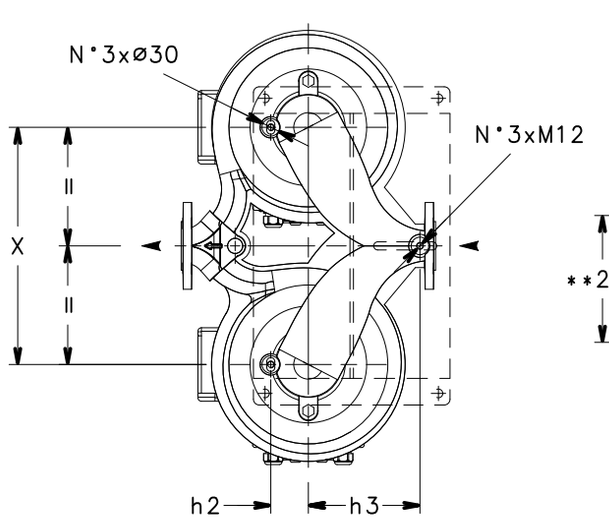


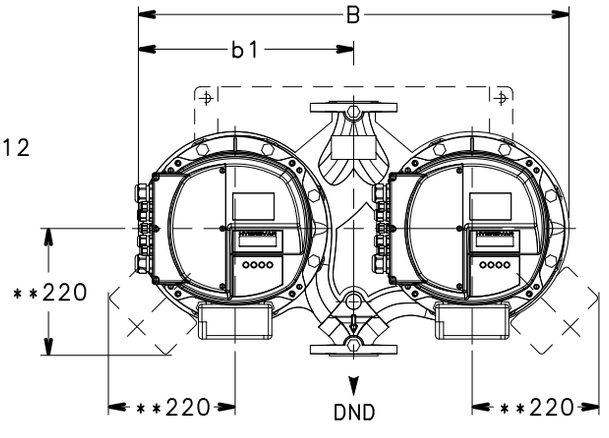
LOWARA
a xylem brand

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

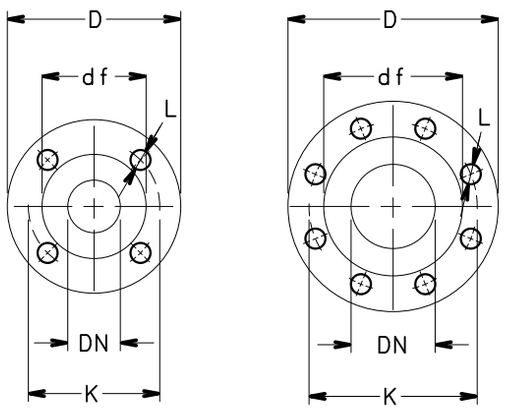








** ONLY FOR MODELS WITH
15-18.5-22 kW MOTORS



FLANGE

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

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

A0027HVL-EN_B_DD

LOWARA
a xylem brand

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

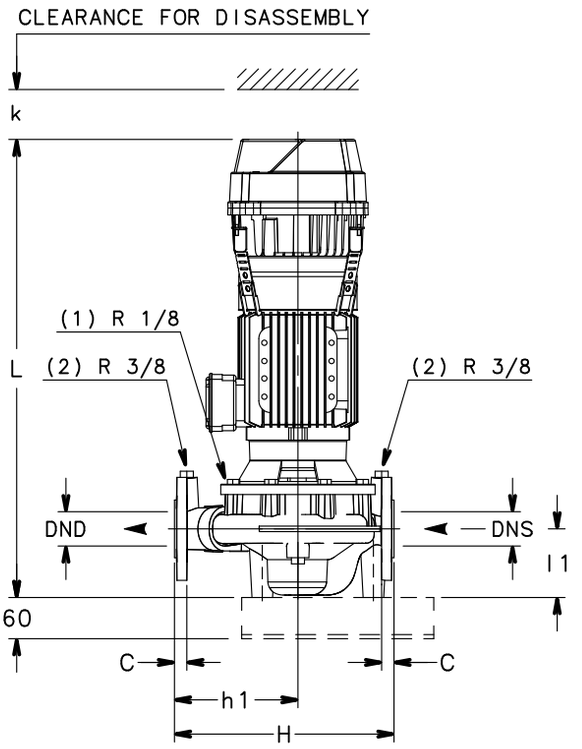
PUMP TYPE LNTEH..2	DIMENSIONS (mm)									B	H	L /2 1~ 230V	L /3 3~ 230V	L /4 3~ 400V	k ≥	WEIGHT (kg) /2 1~ 230V	WEIGHT (kg) /3 3~ 230V	WEIGHT (kg) /4 3~ 400V
	DND	DNS	b1	h1	h2	h3	l1	p	x									
32-160/07/S	32	32	257	180	40	110	90	155	275	514	320	623	623	623	300	64,2	64,2	64,2
32-160/11/S	32	32	257	180	40	110	90	155	275	514	320	623	623	623	300	66,2	66,2	66,2
32-160/15/S	32	32	257	180	40	110	90	155	275	514	320	623	623	623	300	74,2	74,2	74,2
32-160/22/P	32	32	257	180	40	110	90	174	275	514	320	658	658	658	300	88,2	88,2	88,2
32-160/30/P	32	32	257	180	40	110	90	174	275	514	320	-	-	658	300	-	-	90,2
40-125/11/S	40	40	274,5	180	52	110	100	155	310	549	320	633	633	633	300	68,2	68,2	68,2
40-125/15/S	40	40	274,5	180	52	110	100	155	310	549	320	633	633	633	300	76,2	76,2	76,2
40-125/22/P	40	40	274,5	180	52	110	100	174	310	549	320	668	668	668	300	90,2	90,2	90,2
40-125/30/P	40	40	274,5	180	52	110	100	174	310	549	320	683	683	668	300	102,0	102,0	92,2
40-160/22/P	40	40	274,5	180	52	110	100	174	310	549	320	668	668	668	300	90,2	90,2	90,2
40-160/30/P	40	40	274,5	180	52	110	100	174	310	549	320	683	683	668	300	102,0	102,0	92,2
40-160040/P	40	40	274,5	180	52	110	100	197	310	549	320	704	704	689	300	112,0	112,0	102,2
40-160/55/P	40	40	274,5	180	52	110	100	214	310	549	320	-	738	738	300	-	130,0	130,0
40-200/30/P	40	40	372,5	220	65	193	110	174	410	745	440	691	691	676	300	134,0	134,0	124,2
40-200/40/P	40	40	372,5	220	65	193	110	197	410	745	440	712	712	697	300	144,0	144,0	134,2
40-200/55/P	40	40	372,5	220	65	193	110	214	410	745	440	-	746	746	300	-	162,0	162,0
40-200/75/P	40	40	372,5	220	65	193	110	256	410	745	440	-	775	760	300	-	210,2	200,0
40-250/75/P	40	40	372,5	220	65	193	110	256	410	745	440	-	775	760	300	-	210,2	200,0
40-250/92/P	40	40	372,5	220	65	193	110	256	410	745	440	-	813	798	300	-	222,2	212,0
40-250/110/P	40	40	372,5	220	65	193	110	256	410	745	440	-	813	798	300	-	228,2	218,0
40-250/150/P	40	40	372,5	220	65	193	110	313	410	745	440	-	-	902	300	-	-	308,2
50-125/15/S	50	50	275	190	57	120	116	155	310	555	340	649	649	649	300	85,2	85,2	85,2
50-125/22/P	50	50	275	190	57	120	116	174	310	555	340	684	684	684	300	99,2	99,2	99,2
50-125/30/P	50	50	275	190	57	120	116	174	310	555	340	699	699	684	300	111,0	111,0	101,2
50-125/40/P	50	50	275	190	57	120	116	197	310	555	340	720	720	705	300	121,0	121,0	111,2
50-160/30/P	50	50	275	190	57	120	116	174	310	555	340	699	699	684	300	111,0	111,0	101,2
50-160/40/P	50	50	275	190	57	120	116	197	310	555	340	720	720	705	300	121,0	121,0	111,2
50-160/55/P	50	50	275	190	57	120	116	214	310	555	340	-	754	754	300	-	139,0	139,0
50-160/75/P	50	50	275	190	57	120	116	256	310	555	340	-	-	768	300	-	-	177,0
50-200/55/P	50	50	372,5	230	60	185	115	214	410	745	440	-	753	753	300	-	174,0	174,0
50-200/75/P	50	50	372,5	230	60	185	115	256	410	745	440	-	782	767	300	-	222,2	212,0
50-200/92/P	50	50	372,5	230	60	185	115	256	410	745	440	-	820	805	300	-	234,2	224,0
50-200/110/P	50	50	372,5	230	60	185	115	256	410	745	440	-	820	805	300	-	240,2	230,0
50-250/92/P	50	50	372,5	230	60	185	115	256	410	745	440	-	820	805	300	-	234,2	224,0
50-250/110/P	50	50	372,5	230	60	185	115	256	410	745	440	-	820	805	300	-	240,2	230,0
50-250/150/P	50	50	372,5	230	60	185	115	313	410	745	440	-	-	909	300	-	-	320,2
50-250/185/P	50	50	372,5	230	60	185	115	313	410	745	440	-	-	909	300	-	-	342,2
50-250/220/P	50	50	372,5	230	60	185	115	313	410	745	440	-	-	909	300	-	-	360,2
65-125/30/P	65	65	323	190	75	140	122	174	360	646	360	711	711	696	300	123,0	123,0	113,2
65-125/40/P	65	65	323	190	75	140	122	197	360	646	360	732	732	717	300	133,0	133,0	123,2
65-125/55/P	65	65	323	190	75	140	122	214	360	646	360	-	766	766	300	-	151,0	151,0
65-125/75/P	65	65	323	190	75	140	122	256	360	646	360	-	-	780	300	-	-	189,0
65-160/55/P	65	65	323	190	75	140	122	214	360	646	360	-	766	766	300	-	151,0	151,0
65-160/75/P	65	65	323	190	75	140	122	256	360	646	360	-	-	780	300	-	-	189,0
65-160/92/P	65	65	323	190	75	140	122	256	360	646	360	-	-	818	300	-	-	201,0
65-160/110/P	65	65	323	190	75	140	122	256	360	646	360	-	-	818	300	-	-	207,0
65-200/92/P	65	65	377,5	250	76	196	118	256	420	762	475	-	823	808	300	-	242,2	232,0
65-200/110/P	65	65	377,5	250	76	196	118	256	420	762	475	-	823	808	300	-	248,2	238,0
65-200/150/P	65	65	377,5	250	76	196	118	313	420	762	475	-	-	912	300	-	-	328,2
65-200/185/P	65	65	377,5	250	76	196	118	313	420	762	475	-	-	912	300	-	-	350,2
65-250/150/P	65	65	377,5	250	76	196	118	313	420	762	475	-	-	912	300	-	-	328,2
65-250/185/P	65	65	377,5	250	76	196	118	313	420	762	475	-	-	912	300	-	-	350,2
65-250/220/P	65	65	377,5	250	76	196	118	313	420	762	475	-	-	912	300	-	-	368,2
80-125/40/P	80	80	374	235	80	110	133	197	410	748	420	737	737	722	300	151,0	151,0	151,0
80-125/110/P	80	80	374	235	80	110	133	256	410	748	420	0	838	823	300	0,0	256,2	246,0
80-160/55/P	80	80	374	235	80	110	133	214	410	748	420	-	771	771	300	-	190,0	190,0
80-160/75/P	80	80	374	235	80	110	133	256	410	748	420	-	800	785	300	-	238,2	228,0
80-160/92/P	80	80	374	235	80	110	133	256	410	748	420	-	838	823	300	-	250,2	240,0
80-160/110/P	80	80	374	235	80	110	133	256	410	748	420	-	838	823	300	-	256,2	246,0
80-160/150/P	80	80	374	235	80	110	133	313	410	748	420	-	-	927	300	-	-	336,2
80-160/185/P	80	80	374	235	80	110	133	313	410	748	420	-	-	927	300	-	-	358,2
100-160/110/P	100	100	374	280	87	125	158	256	410	748	500	-	868	853	300	-	268,2	258,0
100-160/150/P	100	100	374	280	87	125	158	313	410	748	500	-	-	957	300	-	-	348,2
100-160/185/P	100	100	374	280	87	125	158	313	410	748	500	-	-	957	300	-	-	370,2
100-160/220/P	100	100	374	280	87	125	158	313	410	748	500	-	-	957	300	-	-	388,2

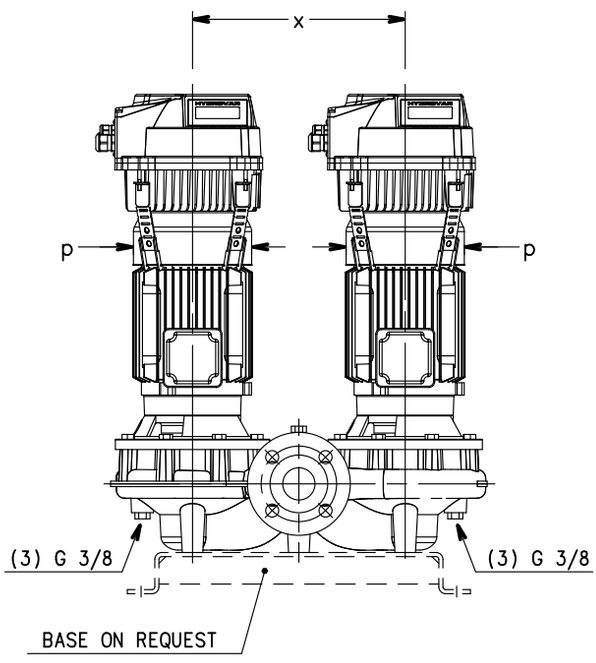
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

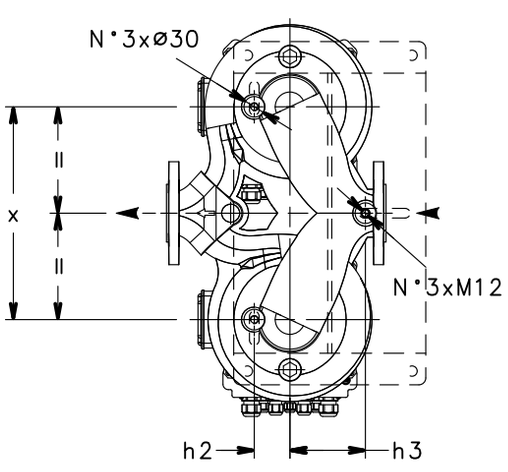
LNEEH-HVL-32-100_2p50-en_a_td

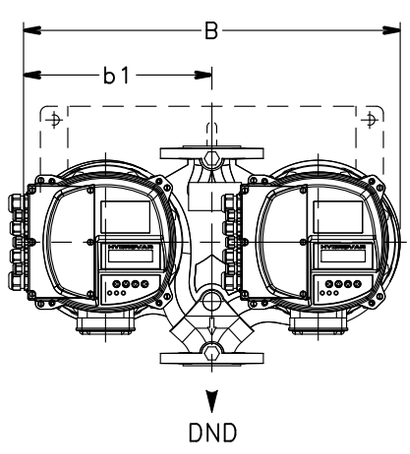
LOWARA
a xylem brand

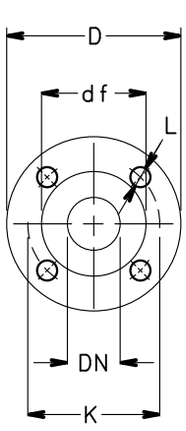
LNTEH 40, 50, 65, 80, 100 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

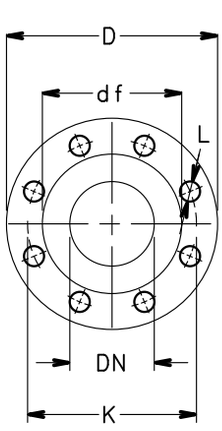












(1) AIR VALVE
(2) PRESSURE GAUGE CONNECTOR
(3) DRAIN

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.

A0026HVL-EN_A_DD

LOWARA
a xylem brand

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

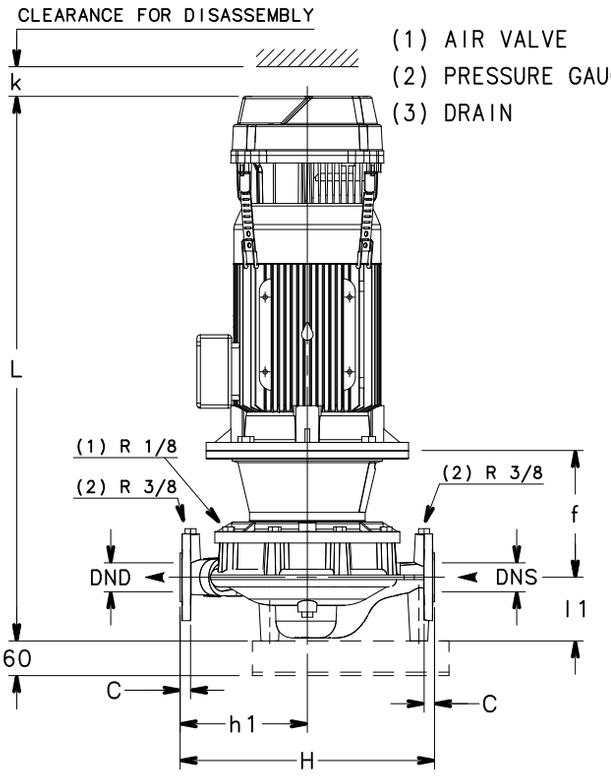
PUMP TYPE LNTEH..4	DIMENSIONS (mm)									B	H	L			k	WEIGHT (kg)		
												/2	/3	/4		/2	/3	/4
	DND	DNS	b1	h1	h2	h3	l1	p	x			1~ 230V	3~ 230V	3~ 400V	≥	1~ 230V	3~ 230V	3~ 400V
40-160/05/X	40	40	275	180	52	110	100	159	310	549	320	601	601	601	300	66,7	66,7	66,7
40-160/07/X	40	40	275	180	52	110	100	159	310	549	320	601	601	601	300	68,2	68,2	68,2
40-200/05/X	40	40	373	220	65	193	110	159	410	745	440	609	609	609	300	98,7	98,7	98,7
40-200/07/X	40	40	373	220	65	193	110	159	410	745	440	609	609	609	300	106,2	106,2	106,2
40-200/11/P	40	40	373	220	65	193	110	174	410	745	440	676	676	676	300	118,2	118,2	118,2
40-250/15/P	40	40	373	220	65	193	110	174	410	745	440	676	676	676	300	126,2	126,2	126,2
40-250/22/P	40	40	373	220	65	193	110	214	410	745	440	700	700	700	300	146,2	146,2	146,2
50-125/05/X	50	50	275	190	57	120	116	159	310	555	340	617	617	617	300	75,7	75,7	75,7
50-160/05/X	50	50	275	190	57	120	116	159	310	555	340	617	617	617	300	75,7	75,7	75,7
50-160/07/X	50	50	275	190	57	120	116	159	310	555	340	617	617	617	300	83,2	83,2	83,2
50-160/11/P	50	50	275	190	57	120	116	174	310	555	340	684	684	684	300	99,2	99,2	99,2
50-200/07/X	50	50	373	230	60	185	115	159	410	745	440	616	616	616	300	102,2	102,2	102,2
50-200/11/P	50	50	373	230	60	185	115	174	410	745	440	683	683	683	300	130,2	130,2	130,2
50-200/15/P	50	50	373	230	60	185	115	174	410	745	440	683	683	683	300	138,2	138,2	138,2
50-250/15/P	50	50	373	230	60	185	115	174	410	745	440	683	683	683	300	138,2	138,2	138,2
50-250/22/P	50	50	373	230	60	185	115	214	410	745	440	707	707	707	300	158,2	158,2	158,2
50-250/30/P	50	50	373	230	60	185	115	214	410	745	440	753	753	738	300	176,0	176,0	166,2
65-125/05/X	65	65	323	190	75	140	122	159	360	646	360	629	629	629	300	87,7	87,7	87,7
65-125/07/X	65	65	323	190	75	140	122	159	360	646	360	629	629	629	300	95,2	95,2	95,2
65-125/11/P	65	65	323	190	75	140	122	174	360	646	360	696	696	696	300	107,2	107,2	107,2
65-160/07/X	65	65	323	190	75	140	122	159	360	646	360	629	629	629	300	95,2	95,2	95,2
65-160/11/P	65	65	323	190	75	140	122	174	360	646	360	696	696	696	300	107,2	107,2	107,2
65-160/15/P	65	65	323	190	75	140	122	174	360	646	360	696	696	696	300	115,2	115,2	115,2
65-200/15/P	65	65	378	250	76	196	118	174	420	762	475	686	686	686	300	146,2	146,2	146,2
65-200/22/P	65	65	378	250	76	196	118	214	420	762	475	710	710	710	300	166,2	166,2	166,2
65-250/22/P	65	65	378	250	76	196	118	214	420	762	475	710	710	710	300	166,2	166,2	166,2
65-250/30/P	65	65	378	250	76	196	118	214	420	762	475	756	756	741	300	184,0	184,0	174,2
65-250/40/P	65	65	378	250	76	196	118	214	420	762	475	785	785	770	300	222,0	222,0	212,2
80-125/05/X	80	80	374	235	80	110	133	159	410	748	420	666	666	666	300	126,7	126,7	126,7
80-125/15/P	80	80	374	235	80	110	133	174	410	748	420	701	701	701	300	154,2	154,2	154,2
80-160/15/P	80	80	374	235	80	110	133	174	410	748	420	701	701	701	300	154,2	154,2	154,2
80-160/22/P	80	80	374	235	80	110	133	214	410	748	420	725	725	725	300	174,2	174,2	174,2
100-160/15/P	100	100	374	280	87	125	158	174	410	748	500	731	731	731	300	166,2	166,2	166,2
100-160/22/P	100	100	374	280	87	125	158	214	410	748	500	755	755	755	300	186,2	186,2	186,2
100-160/30/P	100	100	374	280	87	125	158	214	410	748	500	801	801	786	300	204,0	204,0	194,2

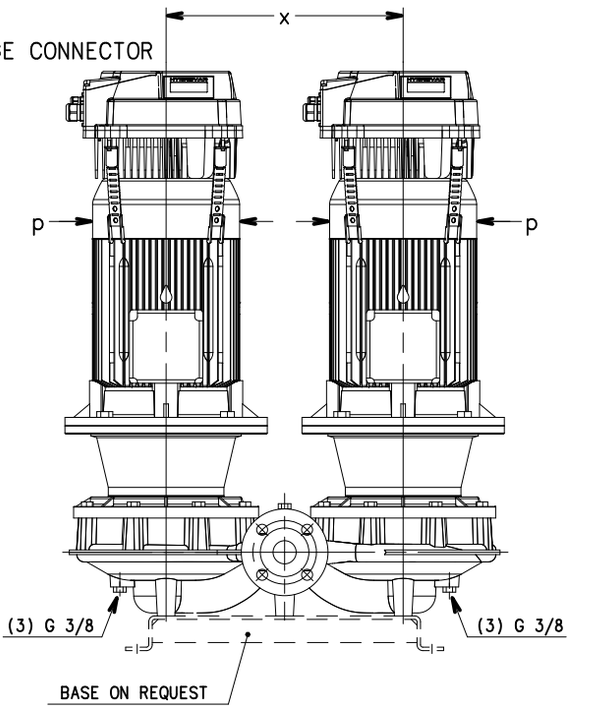
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

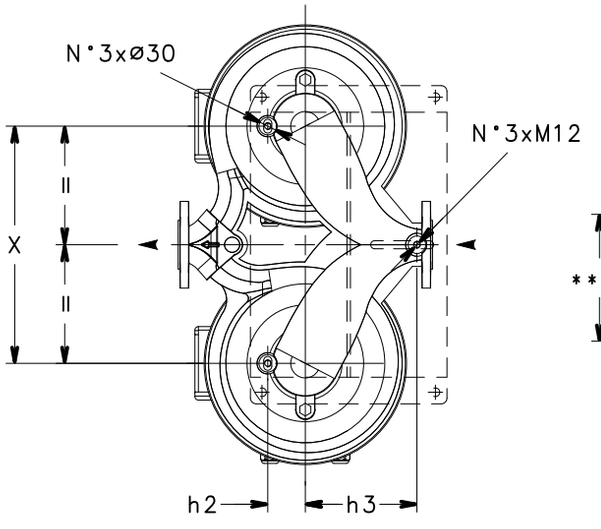
LNTEH-HVL-40-100_4p50-en_c_td

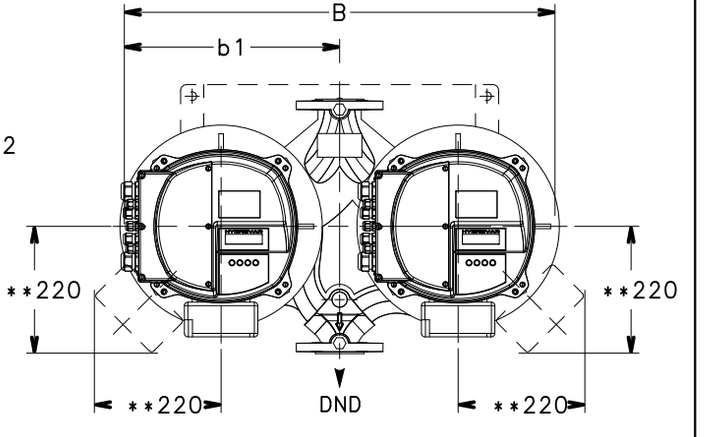
LOWARA
a xylem brand

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

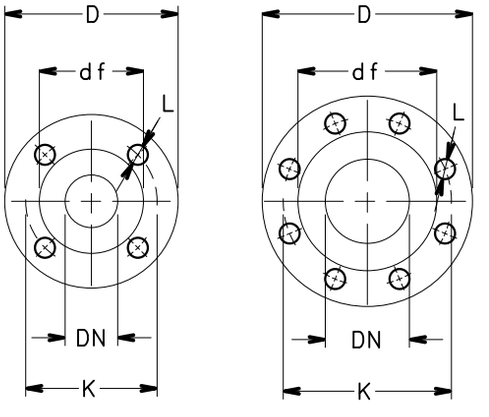








** ONLY FOR MODELS WITH
15-18.5-22 kW MOTORS



FLANGE

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

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

A0029HVL-EN_B_DD

LOWARA
a xylem brand

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

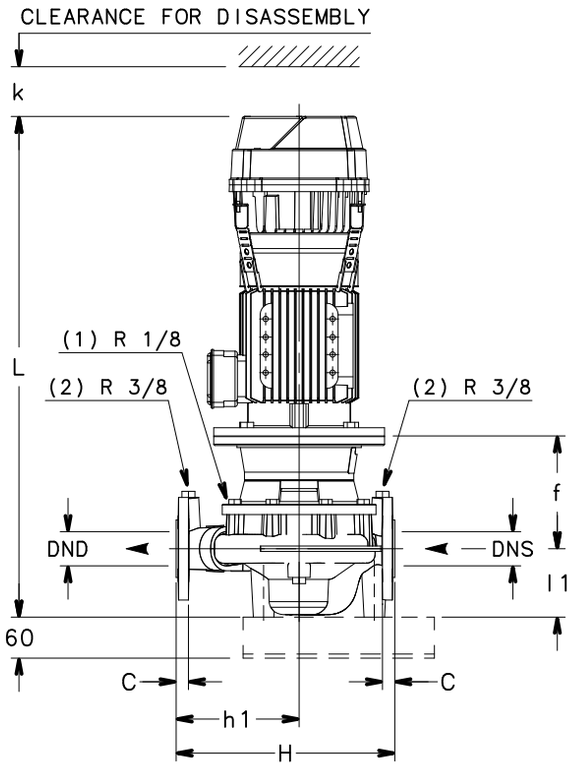
PUMP TYPE LNTSH..2	DIMENSIONS (mm)										B	H	L			k	WEIGHT (kg)		
													/2	/3	/4		/2	/3	/4
	DND	DNS	b1	f	h1	h2	h3	l1	p	x			1~ 230V	3~ 230V	3~ 400V	≥	1~ 230V	3~ 230V	3~ 400V
32-160/07/S	32	32	257	155	180	40	110	90	155	275	514	320	678	678	678	300	70,2	70,2	70,2
32-160/11/S	32	32	257	155	180	40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

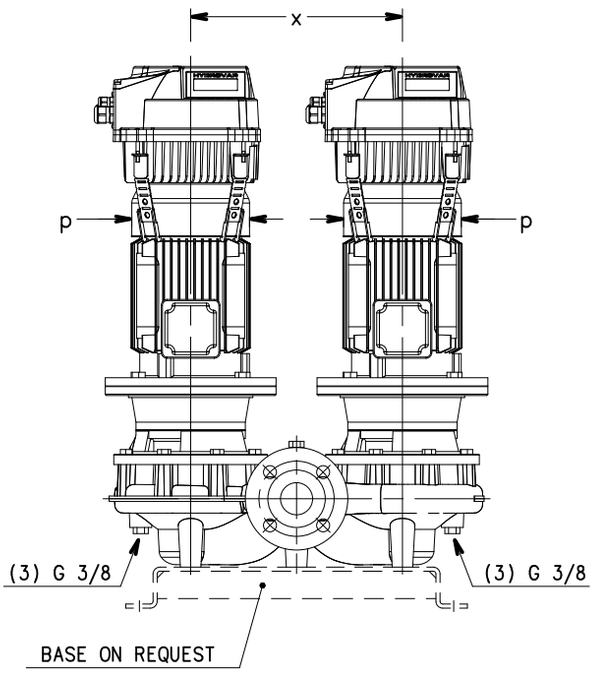
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

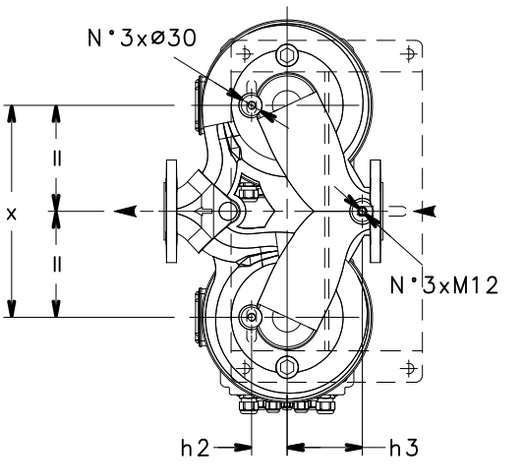
LNTSH-HVL-32-65_2p50-en_a_td

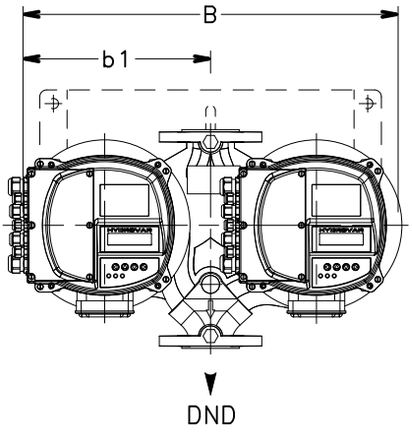
LOWARA
a xylem brand

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

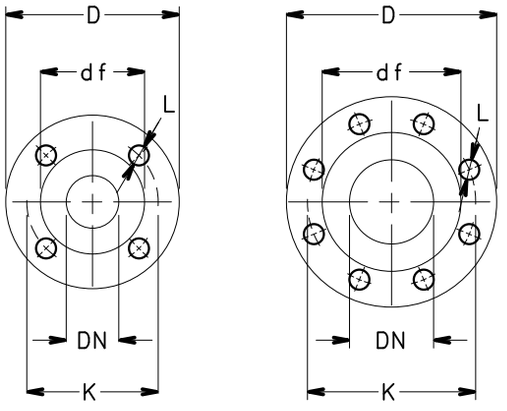








(1) AIR VALVE
(2) PRESSURE GAUGE CONNECTOR
(3) DRAIN



FLANGE

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

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

A0028HVL-EN_A_DD

LOWARA
a xylem brand

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

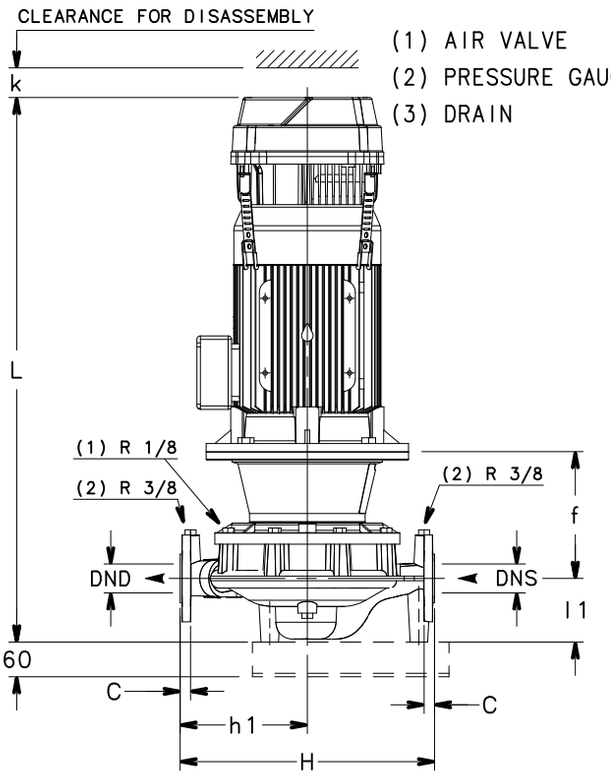
PUMP TYPE LNTSH..4	DIMENSIONS (mm)										B	H	L			k	WEIGHT (kg)		
													/2	/3	/4		/2	/3	/4
	DND	DNS	b1	f	h1	h2	h3	l1	p	x			1~ 230V	3~ 230V	3~ 400V	≥	1~ 230V	3~ 230V	3~ 400V
40-160/05/X	40	40	275	155	180	52	110	100	159	310	549	320	656	656	656	300	73,0	73,0	73,0
40-160/07/X	40	40	275	155	180	52	110	100	159	310	549	320	624	624	624	300	80,2	80,2	80,2
40-200/05/X	40	40	373	152	220	65	193	110	159	410	745	440	664	664	664	300	105,0	105,0	105,0
40-200/07/X	40	40	373	152	220	65	193	110	159	410	745	440	664	664	664	300	112,2	112,2	112,2
40-200/11/P	40	40	373	152	220	65	193	110	174	410	745	440	731	731	731	300	124,2	124,2	124,2
40-250/11/P	40	40	373	152	220	65	193	110	174	410	745	440	731	731	731	300	124,2	124,2	124,2
40-250/15/P	40	40	373	152	220	65	193	110	174	410	745	440	731	731	731	300	132,2	132,2	132,2
40-250/22/P	40	40	373	162	220	65	193	110	214	410	745	440	765	765	765	300	154,2	154,2	154,2
50-125/05/X	50	50	275	155	190	57	120	116	159	310	555	340	672	672	672	300	82,0	82,0	82,0
50-160/05/X	50	50	275	155	190	57	120	116	159	310	555	340	672	672	672	300	82,0	82,0	82,0
50-160/07/X	50	50	275	155	190	57	120	116	159	310	555	340	672	672	672	300	89,2	89,2	89,2
50-160/11/P	50	50	275	155	190	57	120	116	174	310	555	340	739	739	739	300	101,2	101,2	101,2
50-200/07/X	50	50	373	155	230	60	185	115	159	410	745	440	671	671	671	300	124,2	124,2	124,2
50-200/11/P	50	50	373	155	230	60	185	115	174	410	745	440	738	738	738	300	136,2	136,2	136,2
50-200/15/P	50	50	373	155	230	60	185	115	174	410	745	440	738	738	738	300	144,2	144,2	144,2
50-250/11/P	50	50	373	155	230	60	185	115	174	410	745	440	738	738	738	300	136,2	136,2	136,2
50-250/15/P	50	50	373	155	230	60	185	115	174	410	745	440	738	738	738	300	144,2	144,2	144,2
50-250/22/P	50	50	373	165	230	60	185	115	214	410	745	440	772	772	772	300	165,2	165,2	165,2
50-250/30/P	50	50	373	165	230	60	185	115	214	410	745	440	818	818	803	300	184,0	184,0	174,2
65-125/05/X	65	65	323	161	190	75	140	122	159	360	646	360	684	684	684	300	95,0	95,0	95,0
65-125/07/X	65	65	323	161	190	75	140	122	159	360	646	360	684	684	684	300	102,2	102,2	102,2
65-125/11/P	65	65	323	161	190	75	140	122	174	360	646	360	751	751	751	300	114,2	114,2	114,2
65-160/07/X	65	65	323	161	190	75	140	122	159	360	646	360	684	684	684	300	102,2	102,2	102,2
65-160/11/P	65	65	323	161	190	75	140	122	174	360	646	360	751	751	751	300	114,2	114,2	114,2
65-160/15/P	65	65	323	161	190	75	140	122	174	360	646	360	751	751	751	300	122,2	122,2	122,2
65-200/11/P	65	65	378	155	250	76	196	118	174	420	762	475	741	741	741	300	144,2	144,2	144,2
65-200/15/P	65	65	378	155	250	76	196	118	174	420	762	475	741	741	741	300	152,2	152,2	152,2
65-200/22/P	65	65	378	165	250	76	196	118	214	420	762	475	775	775	775	300	174,2	174,2	174,2
65-250/22/P	65	65	378	165	250	76	196	118	214	420	762	475	775	775	775	300	174,2	174,2	174,2
65-250/30/P	65	65	378	165	250	76	196	118	214	420	762	475	821	821	806	300	192,0	192,0	182,2
65-250/40/P	65	65	378	165	250	76	196	118	214	420	762	475	850	850	835	300	230,0	230,0	220,2

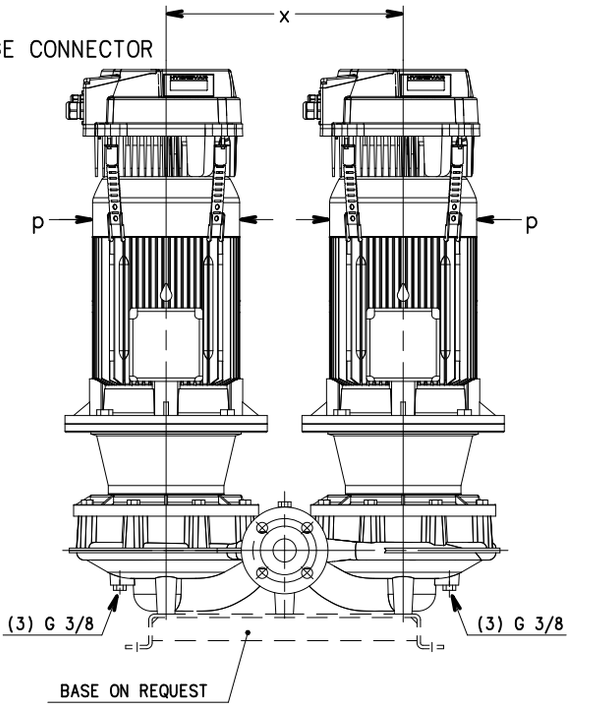
NOTE: Pumps supplied with flanges according to EN 1092-2 as standard. For flanges dimensions see drawing.

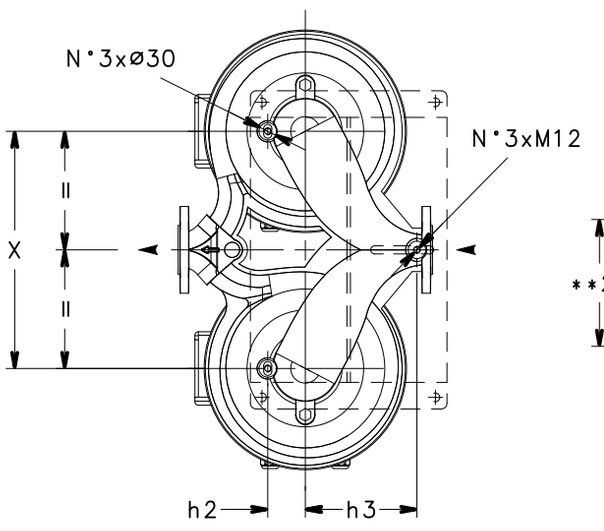
LNTSH-HVL-40-50-65_4p50-en_d_td

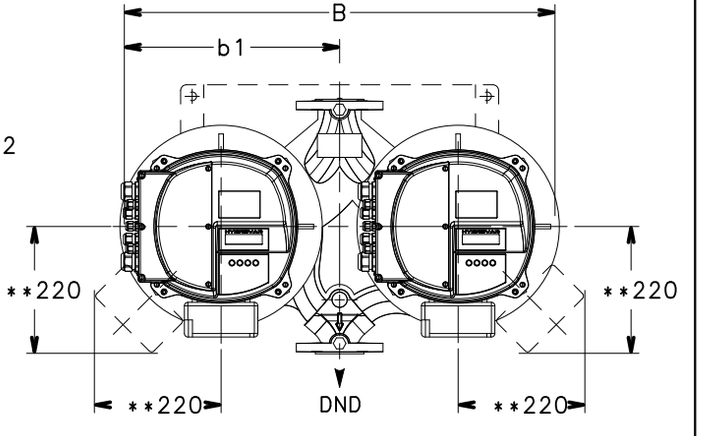
LOWARA
a xylem brand

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

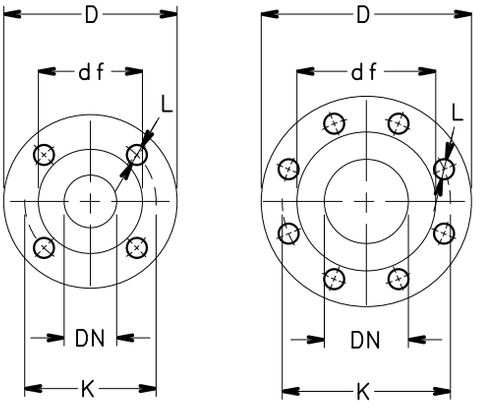








** ONLY FOR MODELS WITH
15-18.5-22 kW MOTORS



FLANGE

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

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

A0029HVL-EN_B_DD

LOWARA
a xylem brand

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

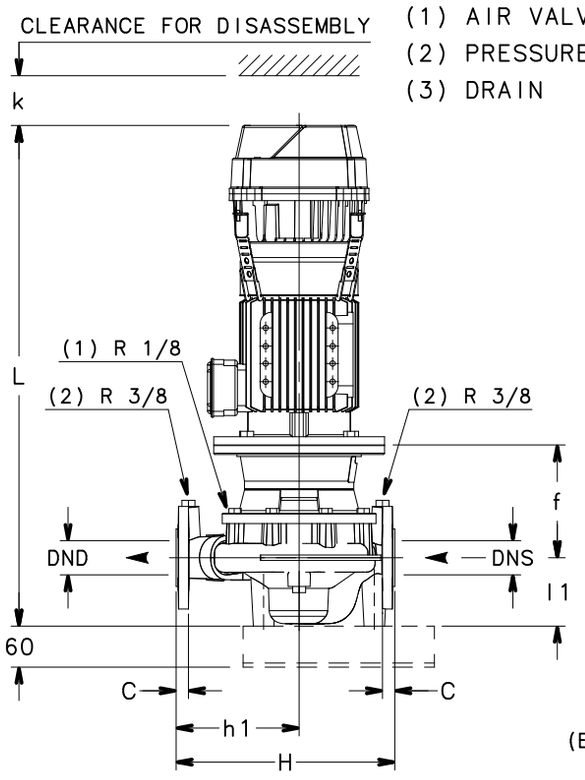
TYPE POMPE LNTSH..2	DIMENSIONS (mm)										B	H	L			k	POIDS (kg)		
													/2	/3	/4		/2	/3	/4
	DND	DNS	b1	f	h1	h2	h3	l1	p	x			1~ 230V	3~ 230V	3~ 400V	IV	1~ 230V	3~ 230V	3~ 400V
80-125/40/P	80	80	374	165	235	80	110	133	197	410	748	420	802	802	787	300	173,0	173,0	163,2
80-125/110/P	80	80	374	222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

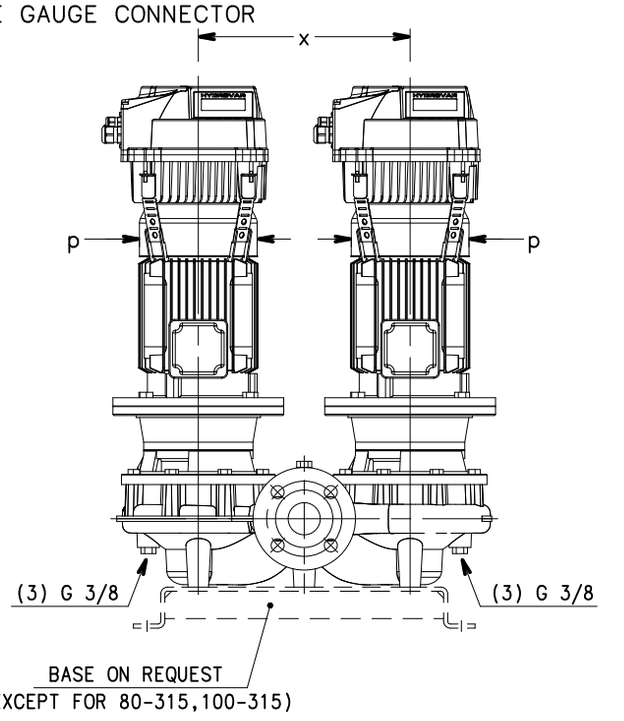
NOTES : pompes avec brides conformes aux normes EN 1092-2. Pour les dimensions des brides, voir dessin.

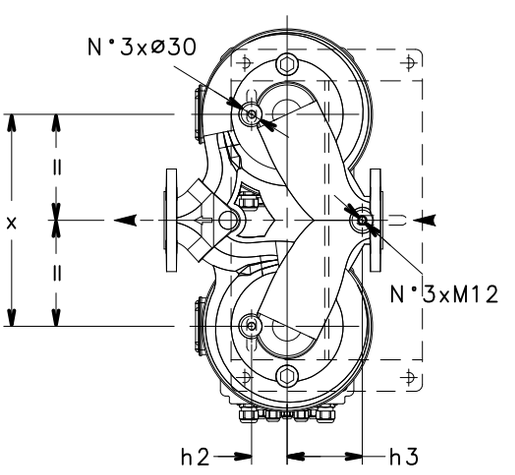
LNTSH-HVL-80-100_2p50-fr_b_td

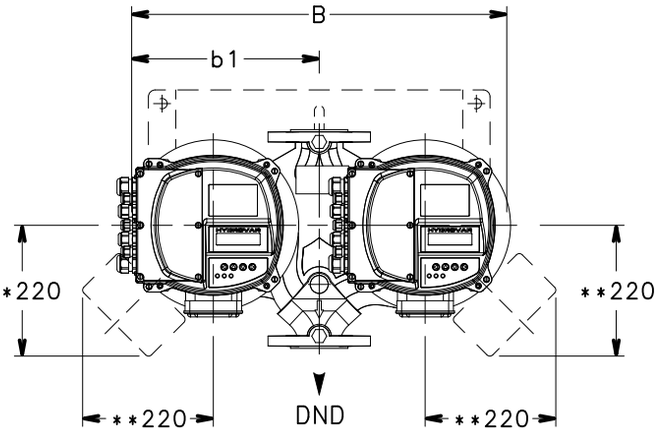
LOWARA
a xylem brand

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

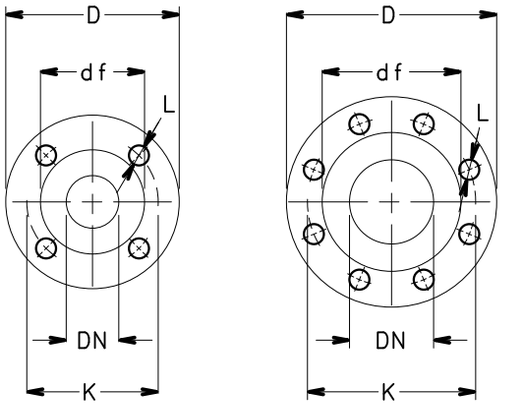








** ONLY FOR MODELS WITH
11-15 kW MOTORS



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.

A0043HVL-EN_B_DD

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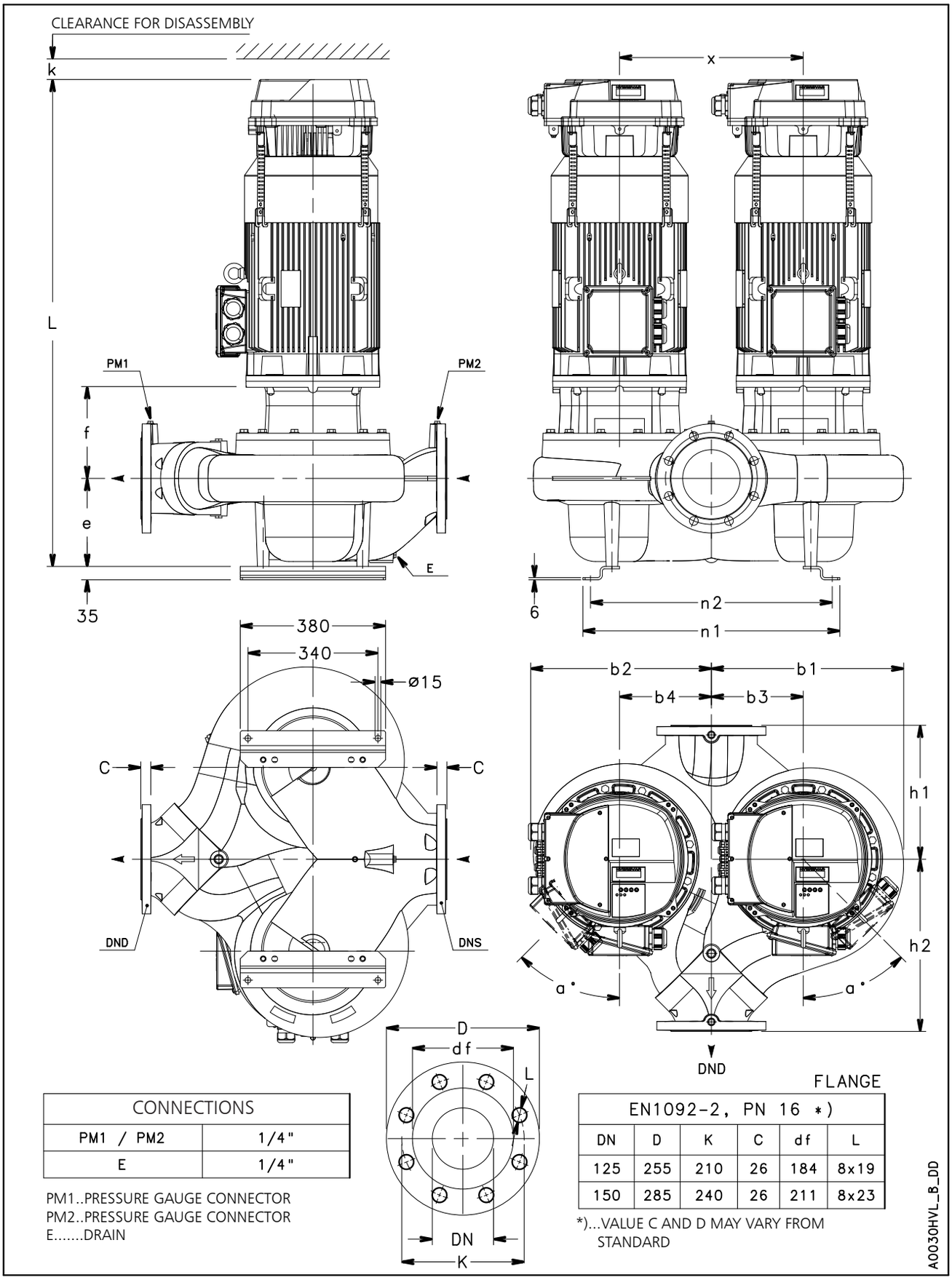
LNTSH 80, 100 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE LNTSH..4	DIMENSIONS (mm)										B	H	L			k	WEIGHT (kg)		
													/2	/3	/4		/2	/3	/4
	DND	DNS	b1	f	h1	h2	h3	l1	p	x			1~ 230V	3~ 230V	3~ 400V	≥	1~ 230V	3~ 230V	3~ 400V
80-125/05/X	80	80	374	155	235	80	110	133	159	410	748	420	689	689	689	300	123,7	123,7	123,7
80-125/15/P	80	80	374	155	235	80	110	133	174	410	748	420	756	756	756	300	160,2	160,2	160,2
80-160/11/P	80	80	374	155	235	80	110	133	174	410	748	420	756	756	756	300	152,2	152,2	152,2
80-160/15/P	80	80	374	155	235	80	110	133	174	410	748	420	756	756	756	300	160,2	160,2	160,2
80-160/22/P	80	80	374	165	235	80	110	133	24	410	748	420	790	790	790	300	182,2	182,2	182,2
80-200/15/P	80	80	378	173	275	85	140	132	174	420	766	500	773	773	773	300	181,2	181,2	181,2
80-200/22/P	80	80	378	183	275	85	140	132	214	420	766	500	807	807	807	300	202,2	202,2	202,2
80-200/30/P	80	80	378	183	275	85	140	132	214	420	766	500	853	853	838	300	220,0	220,0	210,2
80-200/40/P	80	80	378	183	275	85	140	132	214	420	766	500	882	882	867	300	258,0	258,0	248,2
80-250/30/P	80	80	378	183	275	85	140	132	214	420	766	500	853	853	838	300	200,0	200,0	190,2
80-250/40/P	80	80	378	183	275	85	140	132	214	420	766	500	882	882	867	300	238,0	238,0	228,2
80-250/55/P	80	80	378	210	275	85	140	132	256	420	766	500	-	932	932	300	-	260,0	260,0
80-250/75/P	80	80	378	210	275	85	140	132	256	420	766	500	-	947	932	300	-	278,2	268,0
80-315/75/P	80	80	433	210	330	90	140	145	256	420	851	620	-	960	945	300	-	354,2	344,0
80-315/110/P	80	80	433	240	330	90	140	145	313	420	851	620	-	1079	1064	300	-	483,2	473,0
80-315/150/P	80	80	433	240	330	90	140	145	313	420	851	620	-	-	1079	300	-	-	491,2
100-160/15/P	100	100	374	160	280	87	125	158	174	410	748	500	786	786	786	300	173,2	173,2	173,2
100-160/22/P	100	100	374	170	280	87	125	158	214	410	748	500	820	820	820	300	194,2	194,2	194,2
100-160/30/P	100	100	374	170	280	87	125	158	214	410	748	500	866	866	851	300	212,0	212,0	202,2
100-200/30/P	100	100	381	183	300	90	160	179	214	420	783	550	900	900	885	300	214,0	214,0	204,2
100-200/40/P	100	100	381	183	300	90	160	179	214	420	783	550	929	929	914	300	252,0	252,0	242,2
100-200/55/P	100	100	381	210	300	90	160	179	256	420	783	550	-	979	979	300	-	274,0	274,0
100-250/55/P	100	100	381	210	300	90	160	179	256	420	783	550	-	979	979	300	-	274,0	274,0
100-250/75/P	100	100	381	210	300	90	160	179	256	420	783	550	-	994	979	300	-	292,2	282,0
100-250/110/P	100	100	381	240	300	90	160	179	313	420	783	550	-	1113	1098	300	-	402,2	392,0
100-315/110/P	100	100	453	240	360	110	155	175	313	420	883	670	-	1109	1094	300	-	514,2	504,0
100-315/150/P	100	100	453	240	360	110	155	175	313	420	883	670	-	-	1109	300	-	-	522,2
100-315/185/L	100	100	453	240	360	110	155	175	358	420	883	670	-	-	1206	300	-	-	532,2
100-315/220/L	100	100	453	240	360	110	155	175	358	420	883	670	-	-	1206	300	-	-	542,2

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

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



CONNECTIONS	
PM1 / PM2	1/4"
E	1/4"

PM1..PRESSURE GAUGE CONNECTOR
PM2..PRESSURE GAUGE CONNECTOR
E.....DRAIN

FLANGE

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

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

A0030HVL_B_DD

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

PUMP TYPE LNTSH..4	DIMENSIONS (mm)														L			k	WEIGHT (kg)		
															/2	/3	/4		/2	/3	/4
	DND	DNS	a°	e	f	h1	h2	n1	n2	b1	b2	b3	b4	x	1~ 230V	3~ 230V	3~ 400V	≥	1~ 230V	3~ 230V	3~ 400V
125-160/22/P	125	125	0	200	183	280	340	572	532	412	365	235	160	395	875	875	875	300	238,6	238,6	238,6
125-160/30/P	125	125	0	200	183	280	340	572	532	412	365	235	160	395	921	921	906	300	256,5	256,5	251,6
125-160/40/P	125	125	0	200	183	280	340	572	532	412	365	235	160	395	950	950	935	300	299,5	299,5	294,6
125-200/55/P	125	125	0	200	210	280	340	572	532	412	365	235	160	395	-	1000	1000	300	-	319,5	319,5
125-200/75/P	125	125	0	200	210	280	340	572	532	412	365	235	160	395	-	1015	1000	300	-	334,6	329,5
125-250/75/P	125	125	0	230	215	350	450	652	612	480	516	250	250	500	-	1050	1035	300	-	418,6	413,5
125-250/110/P	125	125	45	230	245	350	450	652	612	480	516	250	250	500	-	1169	1154	300	-	462,6	457,5
125-315/150/P	125	125	45	230	245	350	450	652	612	480	516	250	250	500	-	-	1169	300	-	-	580,6
125-315/185/L	125	125	0	230	245	350	450	652	612	480	516	250	250	500	-	-	1266	300	-	-	590,6
125-315/220/L	125	125	0	230	245	350	450	652	612	480	516	250	250	500	-	-	1266	300	-	-	626,6
150-200/55/P	150	150	0	230	225	375	425	672	632	430	478	235	235	470	-	1045	1045	300	-	407,5	407,5
150-200/75/P	150	150	0	230	225	375	425	672	632	430	478	235	235	470	-	1060	1045	300	-	421,6	416,5
150-200/110/P	150	150	45	230	255	375	425	672	632	430	478	235	235	470	-	1179	1164	300	-	465,6	460,5
150-250/110/P	150	150	45	230	240	350	450	632	592	416	465	218	218	435	-	1164	1149	300	-	439,6	434,5
150-250/150/P	150	150	45	230	240	350	450	632	592	416	465	218	218	435	-	-	1164	300	-	-	523,6
150-315/185/L	150	150	0	230	254	350	450	672	632	466	503	240	240	480	-	-	1275	300	-	-	592,6
150-315/220/L	150	150	0	230	254	350	450	672	632	466	503	240	240	480	-	-	1275	300	-	-	628,6

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

LNTSH-HVL-125-150_4p50-en_c_td

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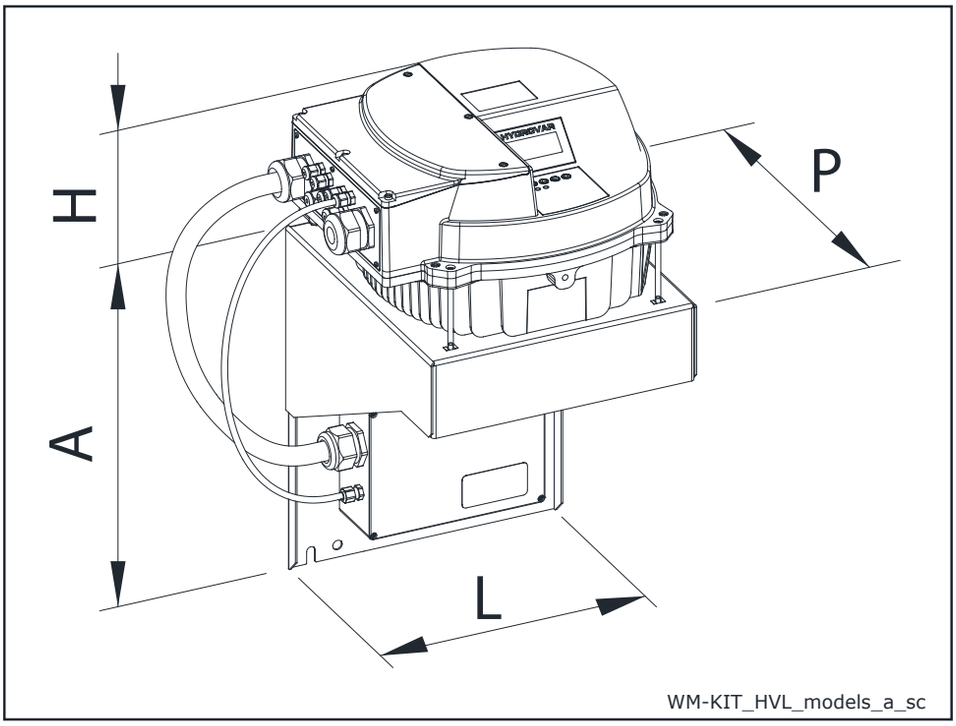
HYDROVAR HVL (WALL MOUNTING KIT) DIMENSIONS AND WEIGHTS

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



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

WM-KIT_HVL_models-EN_b_td

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ACCESSORIES

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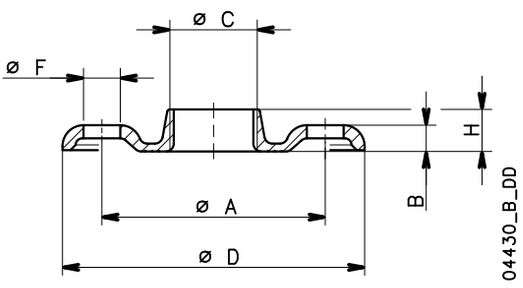
LNT SERIES
ROUND THREADED COUNTERFLANGES KIT ACCORDING TO EN 1092-1

DN	CODE KIT	ø C	DIMENSIONS (mm) ø A	B	ø D	H	HOLES ø F	N°	PN
32	109398010	Rp 1¼	100	13	140	16	18	4	16
40	109398020	Rp 1½	110	14	150	19	18	4	16
50	109398030	Rp 2	125	16	165	24	18	4	16
65	109392710	Rp 2½	145	16	185	23	18	4	16
80	109392720	Rp 3	160	17	200	27	18	8	16
100	109392730	Rp 4	180	18	220	31	18	8	16

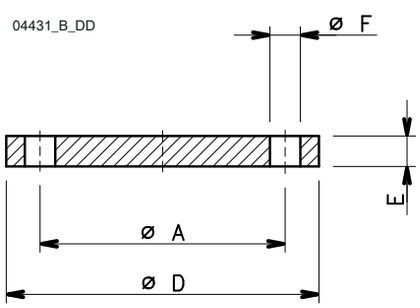
Lne-Lnt-ctf-tonde-f-en_b_td



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

DN	CODE KIT	ø C	DIMENSIONS (mm) ø A	B	ø D	HOLES ø F	N°	PN
32	109395832	43	100	18	140	18	4	16
40	109390662	49.5	110	18	150	18	4	16
50	109390692	61.5	125	20	165	18	4	16
65	109390732	77.5	145	20	185	18	4	16
80	109390762	90.5	160	20	200	18	8	16
100	109390772	116	180	22	220	18	8	16
125	707941320	141.5	210	22	250	18	8	16
150	707941330	170.5	240	24	285	22	8	16

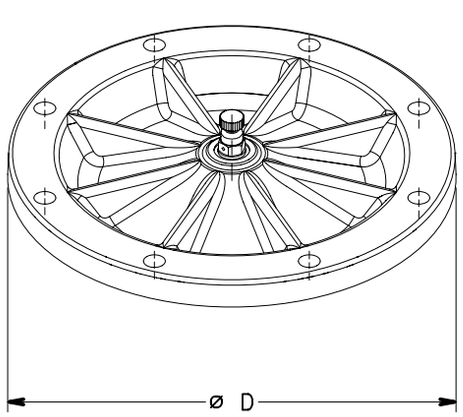
Lne-Lnt-ctf-tonde-s-en_b_td



LNT (32÷100) SERIES
BLIND FLANGE KIT

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

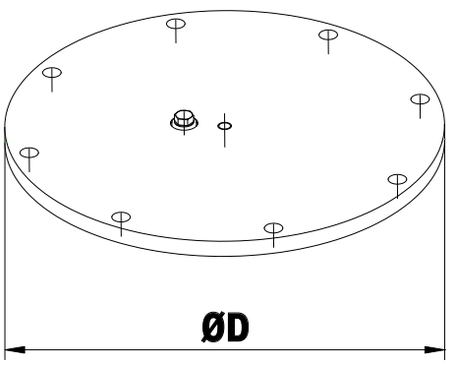
LNT-flangia-cieca-en_b_td



LNT 125, 150 SERIES
BLIND FLANGE KIT

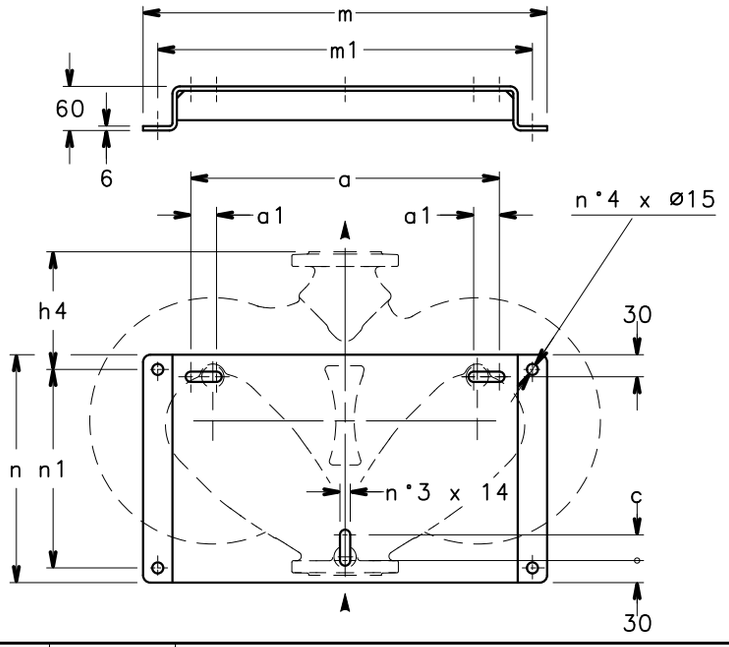
FLANGE KIT		
POMPA TIPO	CODE	ø D
LNTS 125-160	713740900	322
LNTS 125-200		
LNTS 125-250		
LNTS 150-200		
LNTS 150-250		
LNTS 80-315	713740910	401
LNTS 100-315		
LNTS 125-315		
LNTS 150-315		

LNTS-BLFL-en_b_td



LNTS-BLFL-EN_A_DD

LNT (32÷100) SERIES
MOUNTING BASE KIT

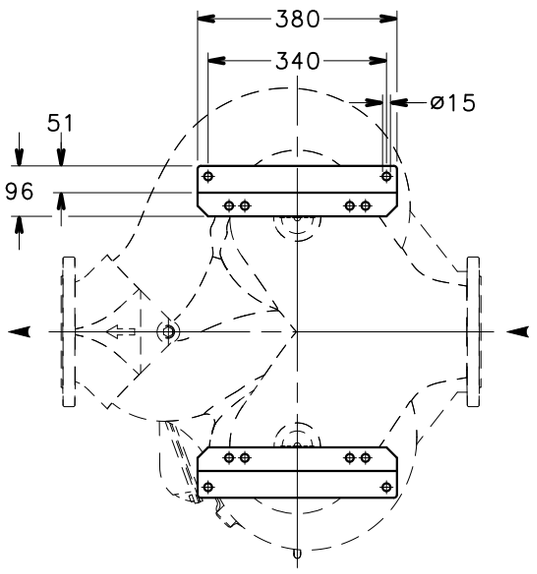


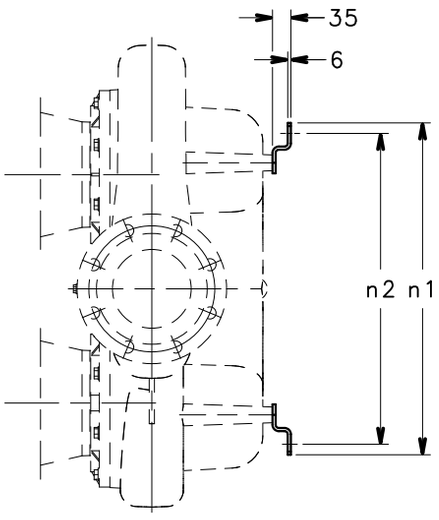
PUMP (LNT) SIZE	CODE KIT	DIMENSIONS (mm)							
		a	a1	c	h4	m	m1	n	n1
32-160	109398610	370	55	72	130	500	460	280	240
40-125 / 40-160		370	55	72	118	500	460	280	240
50-125 / 50-160		370	55	72	123	500	460	280	240
65-125 / 65-160		370	55	72	105	500	460	280	240
80-125 / 80-160	109398620	420	10	95	145	550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

LNT-piede-en_d_td

05260_B_DD

LNT 125, 150 SERIES
MOUNTING BASE KIT





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

LNTS125-150-base-en_b_td

LNTS125-150-BASE_A_DD

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REPORTS AND DECLARATIONS

REPORTS AND DECLARATIONS

i) Test reports

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

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

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

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

e) **Vibration Test Report**
(unavailable for submerged or submergible pumps)
- Report indicating vibration measurements (ISO 10816-1)

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

a) **EN 10204:2004 - type 2.1**
- does not include test results on supplied or similar products.

b) **EN 10204:2004 - type 2.2**
- includes test results (materials certificates) on similar products.

iii) Issue of a further EC Declaration of Conformity,
- in addition to the one accompanying the product, it comprises references to European law and the main technical standards (e.g.: MD 2006/42/EC, EMCD 2014/30/EU, ErP 2009/125/EC).

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

iv) Manufacturer's declaration of conformity
- relative to one of more types of products without indicating specific codes and serial numbers.

v) Other certificates and/or documentation on request
- subject to availability or feasibility.

vi) Duplication of certificates and/or documentation on request
- subject to availability or feasibility.

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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 hz at which to install the machine under safe conditions, the following formula must be verified:

hp + hz $\geq$ **(NPSHr + 0.5) + hf + hpv** ①

where:

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

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

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

hpv is the vapour pressure of the liquid at the operating temperature, expressed in m. of liquid. hpv is the quotient between the Pv vapour pressure and the liquid's specific weight.

0,5 is the safety factor.

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

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

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

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

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

Make the following calculation:

Liquid: water at ~15°C $\gamma = 1$ kg/dm^3
Flow rate required: 25 m^3/h
Head for required delivery: 70 m.
Suction lift: 3,5 m.
The selection is an 33SV3G075T pump whose NPSH required value is, at 25 m^3/h, of 2 m.

For water at 15 °C

hp = Pa / γ = 10,33m, hpv = Pv / γ = 0,174m (0,01701 bar)

The Hf flow resistance in the suction line with foot valves is ~ 1,2 m.
By substituting the parameters in formula ① with the numeric values above, we have:

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

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

The relation is therefore verified.

VAPOUR PRESSURE
VAPOUR PRESSURE ps AND ρ DENSITY OF WATER TABLE

t	T	ps	ρ
°C	K	bar	kg/dm³
0	273,15	0,00611	0,9998
1	274,15	0,00657	0,9999
2	275,15	0,00706	0,9999
3	276,15	0,00758	0,9999
4	277,15	0,00813	1,0000
5	278,15	0,00872	1,0000
6	279,15	0,00935	1,0000
7	280,15	0,01001	0,9999
8	281,15	0,01072	0,9999
9	282,15	0,01147	0,9998
10	283,15	0,01227	0,9997
11	284,15	0,01312	0,9997
12	285,15	0,01401	0,9996
13	286,15	0,01497	0,9994
14	287,15	0,01597	0,9993
15	288,15	0,01704	0,9992
16	289,15	0,01817	0,9990
17	290,15	0,01936	0,9988
18	291,15	0,02062	0,9987
19	292,15	0,02196	0,9985
20	293,15	0,02337	0,9983
21	294,15	0,24850	0,9981
22	295,15	0,02642	0,9978
23	296,15	0,02808	0,9976
24	297,15	0,02982	0,9974
25	298,15	0,03166	0,9971
26	299,15	0,03360	0,9968
27	300,15	0,03564	0,9966
28	301,15	0,03778	0,9963
29	302,15	0,04004	0,9960
30	303,15	0,04241	0,9957
31	304,15	0,04491	0,9954
32	305,15	0,04753	0,9951
33	306,15	0,05029	0,9947
34	307,15	0,05318	0,9944
35	308,15	0,05622	0,9940
36	309,15	0,05940	0,9937
37	310,15	0,06274	0,9933
38	311,15	0,06624	0,9930
39	312,15	0,06991	0,9927
40	313,15	0,07375	0,9923
41	314,15	0,07777	0,9919
42	315,15	0,08198	0,9915
43	316,15	0,09639	0,9911
44	317,15	0,09100	0,9907
45	318,15	0,09582	0,9902
46	319,15	0,10086	0,9898
47	320,15	0,10612	0,9894
48	321,15	0,11162	0,9889
49	322,15	0,11736	0,9884
50	323,15	0,12335	0,9880
51	324,15	0,12961	0,9876
52	325,15	0,13613	0,9871
53	326,15	0,14293	0,9862
54	327,15	0,15002	0,9862

t	T	ps	ρ
°C	K	bar	kg/dm³
55	328,15	0,15741	0,9857
56	329,15	0,16511	0,9852
57	330,15	0,17313	0,9846
58	331,15	0,18147	0,9842
59	332,15	0,19016	0,9837
60	333,15	0,1992	0,9832
61	334,15	0,2086	0,9826
62	335,15	0,2184	0,9821
63	336,15	0,2286	0,9816
64	337,15	0,2391	0,9811
65	338,15	0,2501	0,9805
66	339,15	0,2615	0,9799
67	340,15	0,2733	0,9793
68	341,15	0,2856	0,9788
69	342,15	0,2984	0,9782
70	343,15	0,3116	0,9777
71	344,15	0,3253	0,9770
72	345,15	0,3396	0,9765
73	346,15	0,3543	0,9760
74	347,15	0,3696	0,9753
75	348,15	0,3855	0,9748
76	349,15	0,4019	0,9741
77	350,15	0,4189	0,9735
78	351,15	0,4365	0,9729
79	352,15	0,4547	0,9723
80	353,15	0,4736	0,9716
81	354,15	0,4931	0,9710
82	355,15	0,5133	0,9704
83	356,15	0,5342	0,9697
84	357,15	0,5557	0,9691
85	358,15	0,5780	0,9684
86	359,15	0,6011	0,9678
87	360,15	0,6249	0,9671
88	361,15	0,6495	0,9665
89	362,15	0,6749	0,9658
90	363,15	0,7011	0,9652
91	364,15	0,7281	0,9644
92	365,15	0,7561	0,9638
93	366,15	0,7849	0,9630
94	367,15	0,8146	0,9624
95	368,15	0,8453	0,9616
96	369,15	0,8769	0,9610
97	370,15	0,9094	0,9602
98	371,15	0,9430	0,9596
99	372,15	0,9776	0,9586
100	373,15	1,0133	0,9581
102	375,15	1,0878	0,9567
104	377,15	1,1668	0,9552
106	379,15	1,2504	0,9537
108	381,15	1,3390	0,9522
110	383,15	1,4327	0,9507
112	385,15	1,5316	0,9491
114	387,15	1,6362	0,9476
116	389,15	1,7465	0,9460
118	391,15	1,8628	0,9445

t	T	ps	ρ
°C	K	bar	kg/dm³
120	393,15	1,9854	0,9429
122	395,15	2,1145	0,9412
124	397,15	2,2504	0,9396
126	399,15	2,3933	0,9379
128	401,15	2,5435	0,9362
130	403,15	2,7013	0,9346
132	405,15	2,867	0,9328
134	407,15	3,041	0,9311
136	409,15	3,223	0,9294
138	411,15	3,414	0,9276
140	413,15	3,614	0,9258
145	418,15	4,155	0,9214
155	428,15	5,433	0,9121
160	433,15	6,181	0,9073
165	438,15	7,008	0,9024
170	433,15	7,920	0,8973
175	448,15	8,924	0,8921
180	453,15	10,027	0,8869
185	458,15	11,233	0,8815
190	463,15	12,551	0,8760
195	468,15	13,987	0,8704
200	473,15	15,550	0,8647
205	478,15	17,243	0,8588
210	483,15	19,077	0,8528
215	488,15	21,060	0,8467
220	493,15	23,198	0,8403
225	498,15	25,501	0,8339
230	503,15	27,976	0,8273
235	508,15	30,632	0,8205
240	513,15	33,478	0,8136
245	518,15	36,523	0,8065
250	523,15	39,776	0,7992
255	528,15	43,246	0,7916
260	533,15	46,943	0,7839
265	538,15	50,877	0,7759
270	543,15	55,058	0,7678
275	548,15	59,496	0,7593
280	553,15	64,202	0,7505
285	558,15	69,186	0,7415
290	563,15	74,461	0,7321
295	568,15	80,037	0,7223
300	573,15	85,927	0,7122
305	578,15	92,144	0,7017
310	583,15	98,70	0,6906
315	588,15	105,61	0,6791
320	593,15	112,89	0,6669
325	598,15	120,56	0,6541
330	603,15	128,63	0,6404
340	613,15	146,05	0,6102
350	623,15	165,35	0,5743
360	633,15	186,75	0,5275
370	643,15	210,54	0,4518
374,15	647,30	221,20	0,3154

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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
		hr												36,2	18,9	6,36	2,62	1,24	0,65

The hr values must be multiplied by:

0,71 for galvanized or painted steel pipes

0,54 for stainless steel or copper pipes

0,47 for PVC or PE pipes

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

V = water speed (m/s)

G-at-pct-en_b_th

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

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

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

G-a-pcv-en_b_th

The table is valid for the Hazen Williams coefficient C=100 (cast iron pipework);
for steel pipework, multiply the values by 1,41;
for stainless steel, copper and coated cast iron pipework, multiply the values by 1,85;
When the **equivalent pipeline length** has been determined, the flow resistance is obtained from the table of flow resistance.
The values given are guideline values which are bound to vary slightly according to the model, especially for gate valves and non-return valves, for which it is a good idea to check the values supplied by manufacturers.

VOLUMETRIC CAPACITY

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

PRESSURE AND HEAD

Newton per square metre N/m^2	kilo Pascal kPa	bar bar	Pound force per square inch psi	Metre of water m H_2O	Millimetre of mercury mm Hg
1,0000	0,0010	1×10^{-5}	$1,45 \times 10^{-4}$	$1,02 \times 10^{-4}$	0,0075
1 000,0000	**1,0000**	0,0100	0,1450	0,1020	7,5006
1×10^5	100,0000	**1,0000**	14,5038	10,1972	750,0638
6 894,7570	6,8948	0,0689	**1,0000**	0,7031	51,7151
9 806,6500	9,8067	0,0981	1,4223	**1,0000**	73,5561
133,3220	0,1333	0,0013	0,0193	0,0136	**1,0000**

LENGTH

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

VOLUME

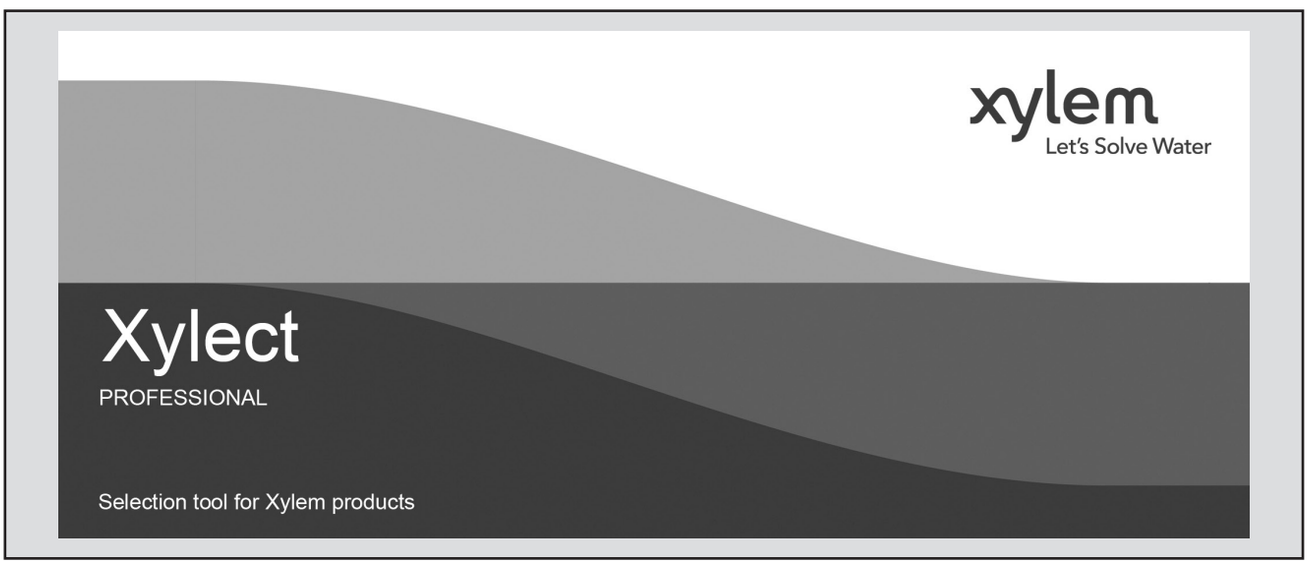
Cubic metre m^3	Litre L	Millilitre ml	Imperial gallon imp. gal.	U.S. gallon US gal.	Cubic foot ft^3
1,0000	1 000,0000	1×10^6	219,9694	264,1720	35,3147
0,0010	**1,0000**	1 000,0000	0,2200	0,2642	0,0353
1×10^{-6}	0,0010	**1,0000**	$2,2 \times 10^{-4}$	$2,642 \times 10^{-4}$	$3,53 \times 10^{-5}$
0,0045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

TEMPERATURE

Water	Kelvin K	Celsius °C	Fahrenheit °F	$°F = °C \times \frac{9}{5} + 32$ $°C = (°F - 32) \times \frac{5}{9}$
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

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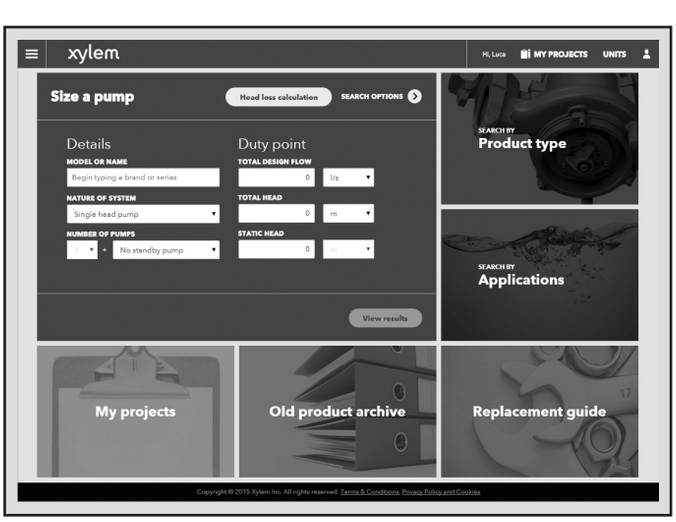
- List with search results
- Performance curves (flow, head, power, efficiency, NPSH)
- Motor data
- Dimensional drawings
- Options
- Data sheet printouts
- Document downloads incl dxf files



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

FURTHER PRODUCT SELECTION AND DOCUMENTATION
Xylect

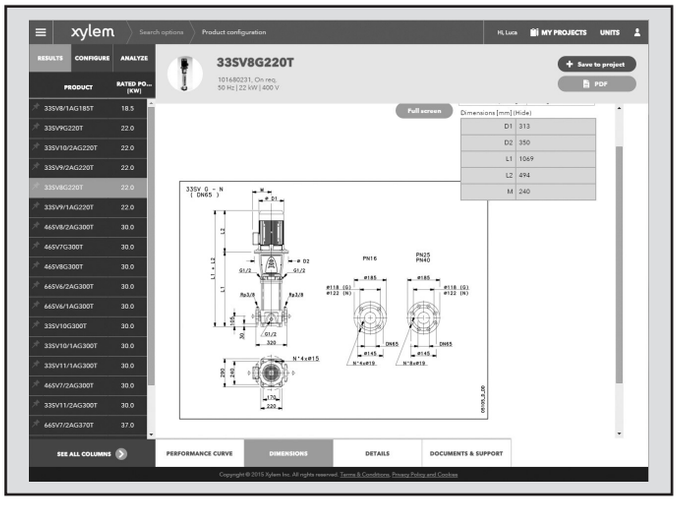
The detailed output makes it easy to select the optimal pump from the given alternatives.

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

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

Every registered user has a proper space, where all projects are saved.

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



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

Xylem |'zīləm|

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

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

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

LOWARA®

xylem
Let's Solve Water

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