



e-NSC Series

HORIZONTAL CENTRIFUGAL ELECTRIC PUMPS

ErP 2009/125/CE

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 $\geq 0,4$

- **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	EEl $< 0,23$

- **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 $\geq 0,12$ and $< 0,75$ kW IE3 : motors with a rated output $\geq 0,75$ 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) 2019/1781 and subsequent updates	1 July 2023	IE2 : motors with a rated output $\geq 0,12$

- **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:

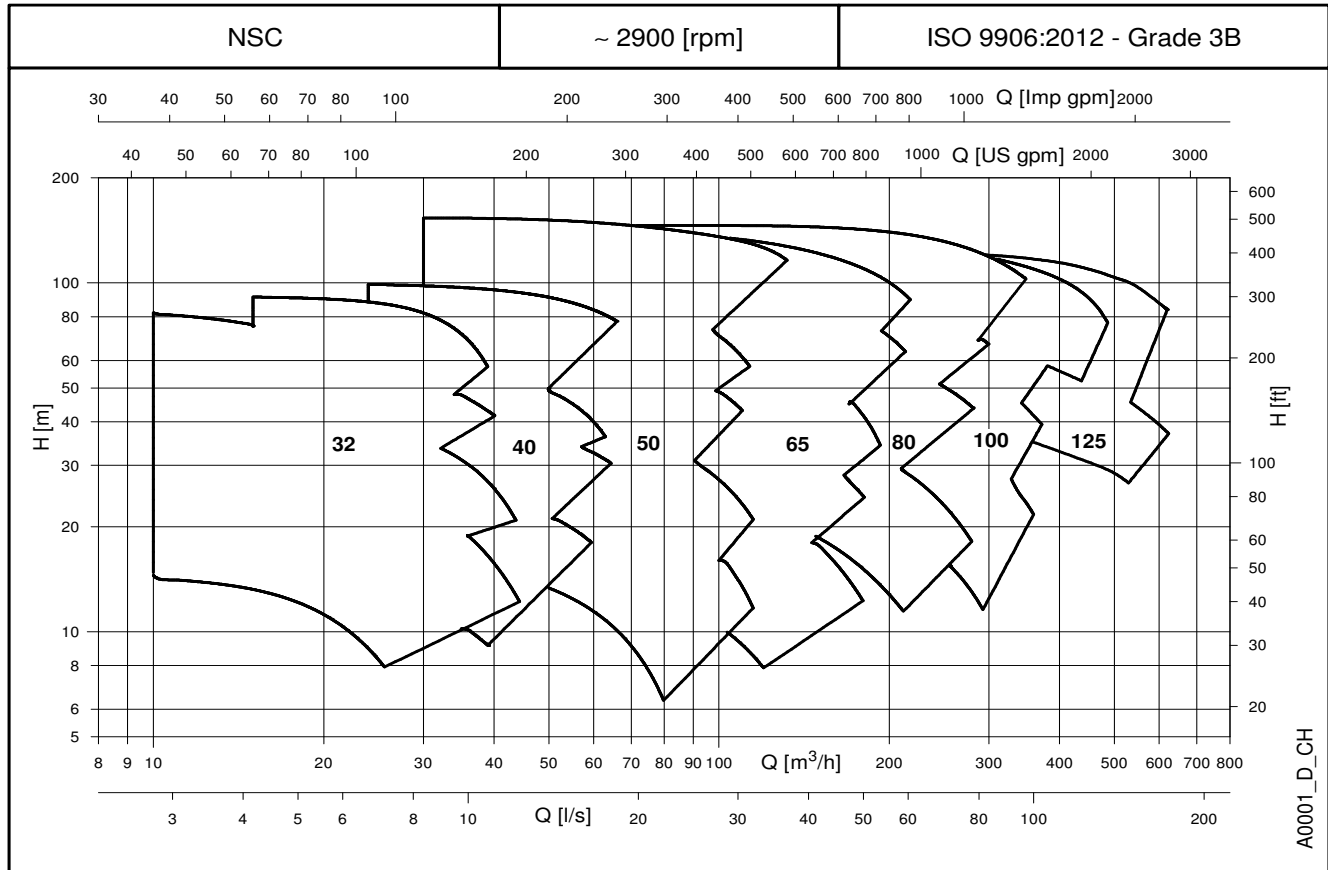
Regulations	From	Target
(EU) 2019/1781 and subsequent updates	1 July 2021	IE2

SUMMARY

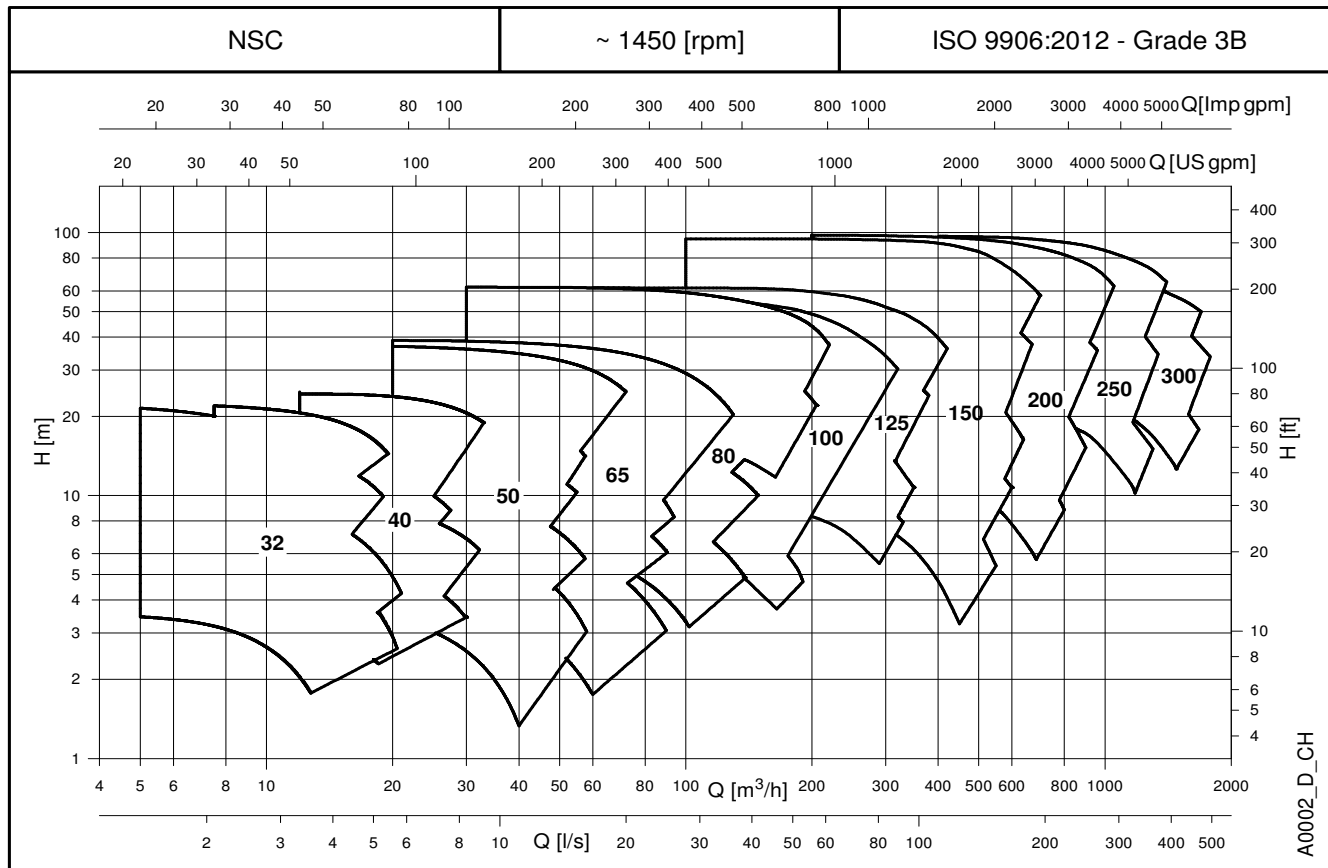
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e-NSC SERIES

HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 2 POLES



HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES



e-NSC SERIES

GENERAL INTRODUCTION

The new **e-NSC** 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 **e-NSC** series can be customized to meet the needs of the Industry segment, keeping the quality in the production and the continuous reliability and robustness in the operation.

Pump design

The new **e-NSC** series is a centrifugal end-suction electro-pump with single-stage (except the two-stage NSC2 models), axial flanged suction port, radial flanged discharge and horizontal shaft. The **e-NSC** pumps have cast iron casing and impeller as standard but are also available in a wide range of materials, from bronze to duplex stainless steel, to allow for various pumping needs.

The pumps are equipped with interchangeable mechanical seals, high efficiency motors, and are designed with a back pull-out configuration (impeller, adapter, and motor can be extracted without disconnecting the pump body from the piping system).

The **e-NSC** series pumps 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.



Frame mounted

Flexible-coupled with bracket, support, flexing coupling (special version with spacer on demand), aligning and anchoring base.



Bare shaft pump

Version without driver suitable to be coupled with a standard electric motor.



Hydraulic specifications

- Maximum delivery: up to **640** m³/h for 2 poles range.
up to **1900** m³/h for 4 poles range.
- Maximum head: up to **154** m for 2 poles range.
up to **100** m for 4 poles range.
- Hydraulic performance compliant with ISO 9906:2012 (Grade 3B).
- 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 and cast iron casing: **16 bar @ 90 °C** and **10 bar @ 120 °C**
 - version with other mechanical seal and casing of cast iron: **16 bar @ 120 °C** and **14,9 bar @ 140 °C**
 - cast ductile iron: **16 bar @ 120 °C** and **15,6 bar @ 140 °C**
 - stainless steel: **16 bar @ 50 °C** and **14,8 bar @ 140 °C**
 - duplex: **16 bar @ 140 °C**
 - NSC2 models with mechanical seal BQ7EGG-WA and cast iron casing: **12 bar @ 110 °C** and **10 bar @ 120 °C**
 - see pages 22 to 25 for more information.

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

- Connection dimensions according to EN 733 for models 32-125/200, 40-125/250, 50-125/250, 65-125/315, 80-160/315, 100-200/400, 125-250/400, 150-315/z400

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 1,5 kW
 - 3 x 220-240/380-415 V 50 Hz for power up to 3 kW
 - 3 x 380-415/660-690 V 50 Hz for power above 3 kW
- Maximum ambient temperature:
 - single-phase version: 45 °C.
 - three-phase version: 40°C or 50°C (depending on model and nominal power).

Note

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

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

Applications

The **e-NSC** series is suitable for many different applications demanding reliable and efficient products that require constant or variable duty points in cost saving operation.

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

- **HVAC**
 - Liquid transfer in heating systems.
 - Liquid transfer in air-conditioning systems.
 - Liquid transfer in ventilation systems.
- **Water Supply**
 - Pressure boosting in commercial buildings.
 - Irrigation systems.
 - Water transfer for green houses.
- **Fire Fighting**



Benefits

The e-NSC Series permit to achieve the following benefits.

- **Performances:** the e-NSC pumps are ErP 2015 compliant, equipped with high efficiency motors and with the right hydraulic coverage for CBS applications. The standard full cast iron version with PN16 *, 140 °C * maximum fluid temperature and EPDM elastomer is exactly what the CBS Market needs.
- **Reliability:** the high quality in production, the robust construction and operation, the easily interchangeable mechanical seals, and wear rings guarantee a continuous operation without faults and a shorter down time for maintenance.
- **Versatility:** beside the standard offer, the e-NSC series is available in many different material configurations for casing, impeller, and elastomers as well as different construction methods to address a wide range of applications.
- **Total cost ownership:** the best hydraulic and electric efficiency, the VSD-equipped versions, the easy and quick maintenance, permit to reduce the operation and maintenance cost and to save energy when the pump is working.
- **Potable water use:** All pumps equipped with standard mechanical seal are certified for drinking water use.
- **Pre-post sales support:** we are continuously working close to our customers to help them in selecting the right pump for the specific application. An improved user-friendly selection software improved with many selection tools is available on the website. Experienced engineers are fully dedicated to big projects for Municipality.

Features

- Discharge ports DN32 to DN300 *.
- Wide performance range up to 154 m head and 1900 m³/h flow.
- Nominal pressure of 16 bar *.
- Wide range of temperatures for pumped liquids: -25°C to +140°C *.
- Wide range of materials for many different kinds of pumped liquid.
- Wide range of voltages.
- High performance motors (IE2/IE3).

* NSC2 models: suction 2", discharge 1¼", PN12, 120 °C.

e-NSC SERIES for INDUSTRY APPLICATIONS & BENEFITS

Applications

The e-NSC series and the different available configurations and standard options have been designed to cover a wide range of applications in the Industry segment. The e-NSC series can be installed in machines where compactness and high performances are a must or within industrial processes where the user looks for a robust and reliable design for the handling of many different liquids.

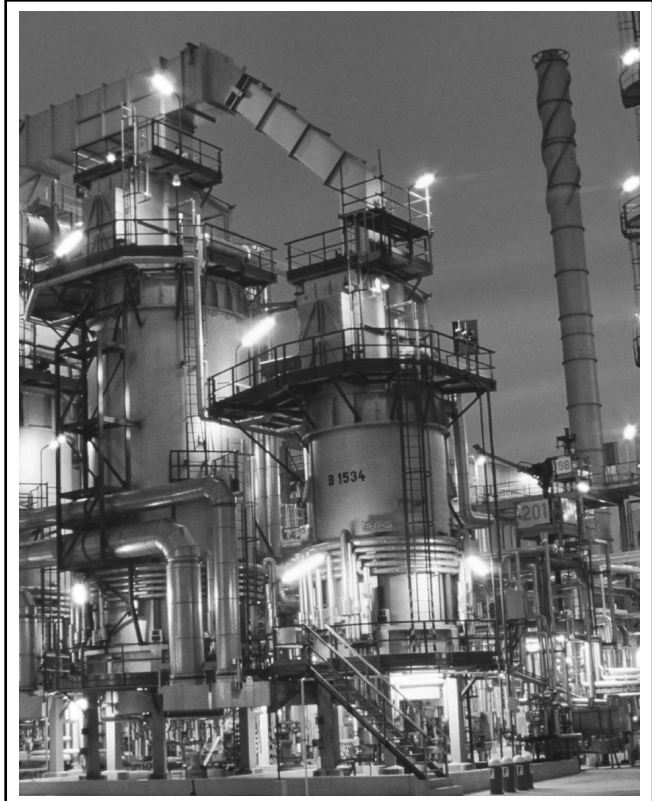
The e-NSC series can be used for the following Industry applications:

- **Process**
 - Process cooling
 - Process heating
 - Heat recovery
- **Water Supply**
 - Water boosting
 - Water treatment
 - Washing and cleaning

Benefits

The e-NSC Series permit to achieve the following benefits:

- **Efficiency:** new designed high efficiency hydraulics, high efficiency motors, and the option with variable speed drive sets the basis for very low operation costs.
- **Reliability:** various mechanical seal materials and options are available to meet the exact needs of your specific application. The e-NSC is also designed for easy maintenance and all service points are easily reachable to reduce downtime.
- **Know How:** the perfect configuration for an application can be made with the selection tool or with the support of our industrial experienced employees.
- **A global platform:** the e-NSC series are assembled in different factories across the world to make the e-NSC always "closer" to our customer. Beyond our commitment to reduce the carbon footprint of e-NSC, this global platform secures the availability of the same design with the same quality processes everywhere.

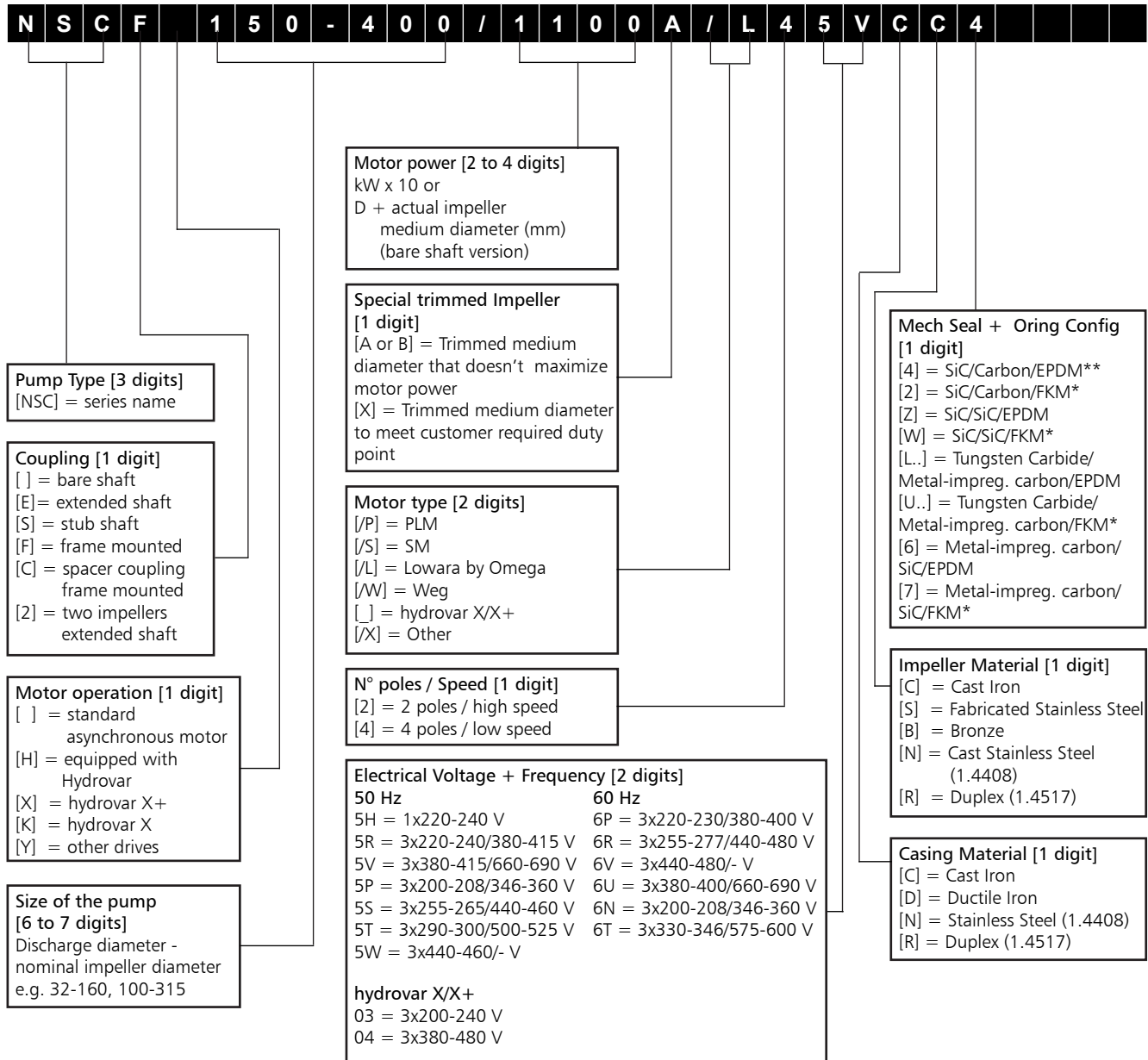


Features

- Discharge ports DN32 to DN300 *.
- Wide performance range up to 154 m head and 1900 m³/h flow.
- Nominal pressure of 16 bar *.
- Wide range of temperatures for pumped liquids: -25°C to +140°C *.
- Wide range of materials for many different kinds of pumped liquid.
- Wide range of voltages.
- High performance motors.
- Variable speed drive version.

* NSC2 models: suction 2", discharge 1¼", PN12, 120 °C.

e-NSC SERIES IDENTIFICATION CODE



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

** [4] = SiC/Metal-impreg. carbon/EPDM for RR version

EXAMPLES

NSCS 100-250/900/L25RCC4

End-suction, electric pump with stub shaft coupling, DN 100 nominal discharge port, 250 mm nominal impeller diameter, 90 kW rated motor power, Lowara by Omega IE3 model, 2-pole, 50 Hz 3x220-240/380-415 V, cast iron casing, cast iron impeller, Silicon carbide/Carbon/EPDM mechanical seal.

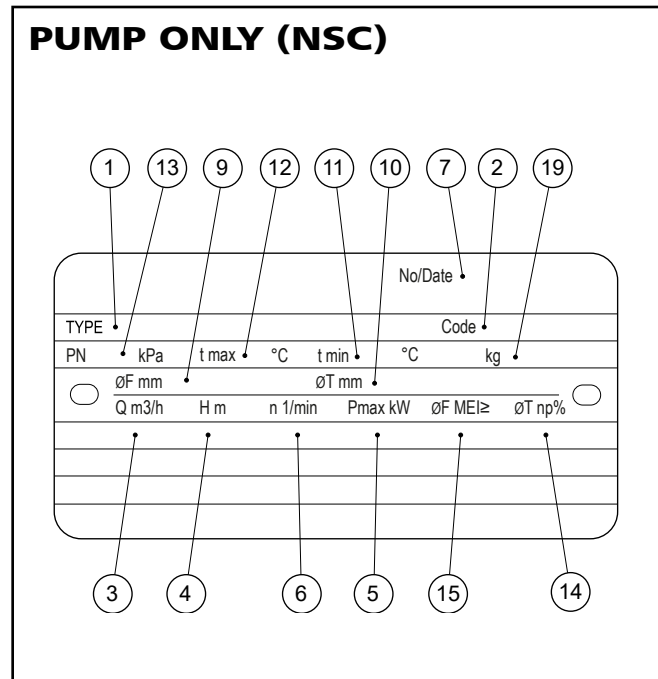
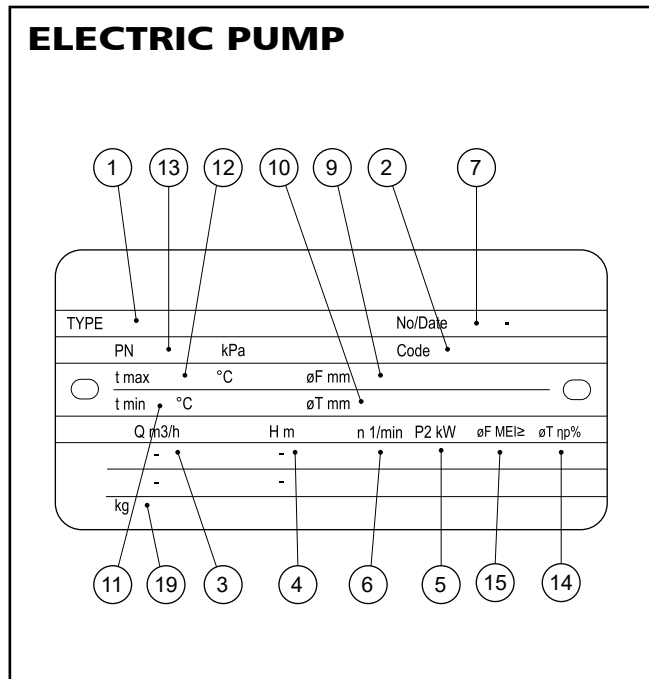
NSCEX 40-125/40/204CS4

End-suction, electric pump with extended shaft, DN 40 nominal discharge port, 125 mm nominal impeller diameter, 4 kW rated motor power, hydrovar X+ model, high speed, 3x380-480 V, cast iron casing, stainless steel impeller, Silicon carbide/Carbon/EPDM mechanical seal.

NSC 150-400/D423CCZ

End-suction, bare shaft pump, DN 150 nominal discharge port, 400 mm nominal impeller diameter, 423 mm actual impeller medium diameter, cast iron casing, cast iron impeller, Silicon carbide/ Silicon carbide/EPDM mechanical seal.

e-NSC SERIES RATING PLATE



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

LEGEND

- 1 - Pump type
- 2 - Pump code
- 3 - Flow range
- 4 - Head range
- 5 - Maximum absorbed 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

Note for electric pump unit: refer to motor data plate for electrical data.

e-NSC SERIES

LIST OF MODELS AT 50 Hz, 2 POLES

SIZE NSC..2	kW	VERSION				
		NSC2	NSCE	NSCS	NSCF	NSCC
32-125/11(*)	1,1	-	•	•	•	•
32-125/15(*)	1,5	-	•	•	•	•
32-125/22	2,2	-	•	•	•	•
32-125/30	3	-	•	•	•	•
32-160/22	2,2	-	•	•	•	•
32-160/30	3	-	•	•	•	•
32-160/40	4	-	•	•	•	•
32-160/55	5,5	-	•	•	•	•
32-200/30	3	-	•	•	•	•
32-200/40	4	-	•	•	•	•
32-200/55	5,5	-	•	•	•	•
32-200/75	7,5	-	•	•	•	•
32-250/55	5,5	•	-	-	-	-
32-250/75	7,5	•	-	-	-	-
32-250/75	7,5	-	•	•	•	•
32-250/92	9,2	-	•	-	-	-
32-250/110A	11	-	-	•	•	•
32-250/110	11	-	•	•	•	•
32-250/150	15	-	•	•	•	•
40-125/15(*)	1,5	-	•	•	•	•
40-125/22	2,2	-	•	•	•	•
40-125/30	3	-	•	•	•	•
40-125/40	4	-	•	•	•	•
40-160/30	3	-	•	•	•	•
40-160/40	4	-	•	•	•	•
40-160/55	5,5	-	•	•	•	•
40-160/75	7,5	-	•	•	•	•
40-200/55	5,5	-	•	•	•	•
40-200/75	7,5	-	•	•	•	•
40-200/92	9,2	-	•	-	-	-
40-200/110A	11	-	-	•	•	•
40-200/110	11	-	•	•	•	•
40-250/92	9,2	-	•	-	-	-
40-250/110A	11	-	-	•	•	•
40-250/110	11	-	•	•	•	•
40-250/150	15	-	•	•	•	•
40-250/185	18,5	-	•	•	•	•
40-250/220	22	-	•	•	•	•
50-125/30	3	-	•	•	•	•
50-125/40	4	-	•	•	•	•
50-125/55	5,5	-	•	•	•	•
50-125/75	7,5	-	•	•	•	•
50-160/55	5,5	-	•	•	•	•
50-160/75	7,5	-	•	•	•	•
50-160/92	9,2	-	•	-	-	-
50-160/110A	11	-	-	•	•	•
50-160/110	11	-	•	•	•	•
50-200/92	9,2	-	•	-	-	-
50-200/110A	11	-	-	•	•	•
50-200/110	11	-	•	•	•	•
50-200/150	15	-	•	•	•	•
50-200/185	18,5	-	•	•	•	•

• = Available

Nsc1_models-2p50-en_d_sc

NSC2 : Two impellers Extended shaft.

NSCE : Extended shaft.

NSCS : Stub shaft.

NSCF : Frame mounted.

NSCC : Frame mounted with spacer coupling.

SIZE NSC..2	kW	VERSION			
		NSCE	NSCS	NSCF	NSCC
50-250/150	15	•	•	•	•
50-250/185	18,5	•	•	•	•
50-250/220	22	•	•	•	•
50-250/300	30	-	•	•	•
50-315/370	37	-	•	•	•
50-315/450	45	-	•	•	•
50-315/550	55	-	•	•	•
50-315/750	75	-	•	•	•
65-125/40	4	•	•	•	•
65-125/55	5,5	•	•	•	•
65-125/75	7,5	•	•	•	•
65-125/92	9,2	•	-	-	-
65-125/110A	11	-	•	•	•
65-125/110	11	•	•	•	•
65-160/75	7,5	•	•	•	•
65-160/92	9,2	•	-	-	-
65-160/110A	11	-	•	•	•
65-160/110	11	•	•	•	•
65-160/150	15	•	•	•	•
65-160/185	18,5	•	•	•	•
65-200/110	11	•	•	•	•
65-200/150	15	•	•	•	•
65-200/185	18,5	•	•	•	•
65-200/220	22	•	•	•	•
65-200/300	30	-	•	•	•
65-250/220	22	-	•	•	•
65-250/300	30	-	•	•	•
65-250/370	37	-	•	•	•
65-250/450	45	-	•	•	•
65-250/550	55	-	•	•	•
65-315/550	55	-	•	•	•
65-315/750	75	-	•	•	•
65-315/900	90	-	•	•	•
80-160/110	11	•	•	•	•
80-160/150	15	•	•	•	•
80-160/185	18,5	•	•	•	•
80-160/220	22	•	•	•	•
80-200/220	22	-	•	•	•
80-200/300	30	-	•	•	•
80-200/370	37	-	•	•	•
80-200/450	45	-	•	•	•
80-250/370	37	-	•	•	•
80-250/450	45	-	•	•	•
80-250/550	55	-	•	•	•
80-250/750	75	-	•	•	•
80-316/900	90	-	-	•	•
80-316/1100	110	-	-	•	•
80-316/1320	132	-	-	•	•
80-316/1600	160	-	-	•	•

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

e-NSC SERIES

LIST OF MODELS AT 50 Hz, 2 POLES

SIZE NSC	kW	VERSION			
		NSCE	NSCS	NSCF	NSCC
100-160/150	15	-	•	•	•
100-160/185	18,5	-	•	•	•
100-160/220	22	-	•	•	•
100-160/300	30	-	•	•	•
100-200/300	30	-	•	•	•
100-200/370	37	-	•	•	•
100-200/450	45	-	•	•	•
100-200/550	55	-	•	•	•
100-250/450	45	-	•	•	•
100-250/550	55	-	•	•	•
100-250/750	75	-	•	•	•
100-250/900	90	-	•	•	•
100-316/1100	110	-	-	•	•
100-316/1320	132	-	-	•	•
100-316/1600	160	-	-	•	•
125-200/450	45	-	•	•	•
125-200/550	55	-	•	•	•
125-200/750	75	-	•	•	•
125-200/900	90	-	•	•	•
125-315/1100	110	-	-	•	•
125-315/1320	132	-	-	•	•
125-315/1600	160	-	-	•	•
125-315/2000	200	-	-	•	•

• = Available

Nsc2_models-2p50-en_c_sc

e-NSC SERIES

LIST OF MODELS AT 50 Hz, 4 POLES

SIZE NSC..4	kW	VERSION				
		NSC2	NSCE	NSCS	NSCF	NSCC
32-125/02B	0,25	-	•	-	-	-
32-125/02A	0,25	-	•	-	-	-
32-125/02	0,25	-	•	-	-	-
32-125/03	0,37	-	•	-	-	-
32-160/02	0,25	-	•	-	-	-
32-160/03	0,37	-	•	-	-	-
32-160/05A	0,55	-	•	•	-	-
32-160/05	0,55	-	•	•	-	-
32-200/05A	0,55	-	•	•	-	-
32-200/05	0,55	-	•	•	-	-
32-200/07	0,75	-	•	•	•	•
32-200/11	1,1	-	•	•	•	•
32-250/11A	1,1	•	-	-	-	-
32-250/11	1,1	•	-	-	-	-
32-250/11A	1,1	-	-	•	•	•
32-250/15B	1,5	-	•	-	-	-
32-250/11	1,1	-	-	•	•	•
32-250/15A	1,5	-	•	-	-	-
32-250/15	1,5	-	•	•	•	•
32-250/22	2,2	-	•	•	•	•
40-125/02A	0,25	-	•	-	-	-
40-125/02	0,25	-	•	-	-	-
40-125/03	0,37	-	•	-	-	-
40-125/05	0,55	-	•	•	-	-
40-160/03	0,37	-	•	-	-	-
40-160/05	0,55	-	•	•	-	-
40-160/07	0,75	-	•	•	•	•
40-160/11	1,1	-	•	•	•	•
40-200/07	0,75	-	•	•	•	•
40-200/11	1,1	-	•	•	•	•
40-200/15A	1,5	-	•	•	•	•
40-200/15	1,5	-	•	•	•	•
40-250/11	1,1	-	-	•	•	•
40-250/15A	1,5	-	•	-	-	-
40-250/15	1,5	-	•	•	•	•
40-250/22A	2,2	-	•	•	•	•
40-250/22	2,2	-	•	•	•	•
40-250/30	3	-	•	•	•	•
50-125/03	0,37	-	•	-	-	-
50-125/05	0,55	-	•	•	-	-
50-125/07	0,75	-	•	•	•	•
50-125/11	1,1	-	•	•	•	•
50-160/07	0,75	-	•	•	•	•
50-160/11A	1,1	-	•	•	•	•
50-160/11	1,1	-	•	•	•	•
50-160/15	1,5	-	•	•	•	•
50-200/11	1,1	-	-	•	•	•
50-200/15A	1,5	-	•	-	-	-
50-200/15	1,5	-	•	•	•	•
50-200/22A	2,2	-	•	•	•	•
50-200/22	2,2	-	•	•	•	•
50-250/22A	2,2	-	•	•	•	•
50-250/22	2,2	-	•	•	•	•
50-250/30	3	-	•	•	•	•
50-250/40	4	-	•	•	•	•

• = Available

Nsc1_models-4p50-en_d_sc

SIZE NSC..4	kW	VERSION			
		NSCE	NSCS	NSCF	NSCC
50-315/40	4	-	•	•	•
50-315/55	5,5	-	•	•	•
50-315/75	7,5	-	•	•	•
50-315/110	11	-	•	•	•
65-125/05	0,55	•	•	-	-
65-125/07	0,75	•	•	•	•
65-125/11	1,1	•	•	•	•
65-125/15	1,5	•	•	•	•
65-160/11A	1,1	-	•	•	•
65-160/15B	1,5	•	-	-	-
65-160/11	1,1	-	•	•	•
65-160/15A	1,5	•	-	-	-
65-160/15	1,5	•	•	•	•
65-160/22A	2,2	•	•	•	•
65-160/22	2,2	•	•	•	•
65-200/15	1,5	•	•	•	•
65-200/22A	2,2	•	•	•	•
65-200/22	2,2	•	•	•	•
65-200/30	3	•	•	•	•
65-200/40	4	•	•	•	•
65-250/30	3	-	•	•	•
65-250/40	4	-	•	•	•
65-250/55A	5,5	-	•	•	•
65-250/55	5,5	-	•	•	•
65-250/75	7,5	-	•	•	•
65-315/55	5,5	-	•	•	•
65-315/75	7,5	-	•	•	•
65-315/110	11	-	•	•	•
65-315/150	15	-	•	•	•
80-160/15	1,5	•	•	•	•
80-160/22A	2,2	•	•	•	•
80-160/22	2,2	•	•	•	•
80-160/30	3	•	•	•	•
80-200/30	3	-	•	•	•
80-200/40	4	-	•	•	•
80-200/55A	5,5	-	•	•	•
80-200/55	5,5	-	•	•	•
80-250/55A	5,5	-	•	•	•
80-250/55	5,5	-	•	•	•
80-250/75	7,5	-	•	•	•
80-250/110	11	-	•	•	•
80-315/110A	11	-	•	•	•
80-315/110	11	-	•	•	•
80-315/150	15	-	•	•	•
80-315/185	18,5	-	•	•	•
80-315/220	22	-	•	•	•
80-400/185	18,5	-	•	•	•
80-400/220	22	-	•	•	•
80-400/300	30	-	•	•	•
80-400/370	37	-	•	•	•

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

SIZE NSC..4	kW	VERSION			
		NSCE	NSCS	NSCF	NSCC
100-160/22A	2.2	-	•	•	•
100-160/22	2.2	-	•	•	•
100-160/30	3	-	•	•	•
100-160/40	4	-	•	•	•
100-200/40	4	-	•	•	•
100-200/55	5.5	-	•	•	•
100-200/75	7.5	-	•	•	•
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	-	•	•	•
100-315/300	30	-	•	•	•
100-400/300	30	-	•	•	•
100-400/370	37	-	•	•	•
100-400/450	45	-	•	•	•
125-200/55	5.5	-	•	•	•
125-200/75	7.5	-	•	•	•
125-200/110	11	-	•	•	•
125-250/75	7.5	-	•	•	•
125-250/110	11	-	•	•	•
125-250/150	15	-	•	•	•
125-315/185	18.5	-	•	•	•
125-315/220	22	-	•	•	•
125-315/300	30	-	•	•	•
125-315/370	37	-	•	•	•
125-400/370	37	-	•	•	•
125-400/450	45	-	•	•	•
125-400/550	55	-	•	•	•
125-400/750	75	-	•	•	•
150-200/110A	11	-	•	•	•
150-200/110	11	-	•	•	•
150-200/150A	15	-	•	•	•
150-200/150	15	-	•	•	•
150-250/150	15	-	•	•	•
150-250/185	18.5	-	•	•	•
150-250/220	22	-	•	•	•
150-250/300	30	-	•	•	•
150-315/300	30	-	•	•	•
150-315/370	37	-	•	•	•
150-315/450	45	-	•	•	•
150-400/450	45	-	•	•	•
150-400/550	55	-	•	•	•
150-400/750	75	-	•	•	•
150-400/900	90	-	•	•	•
150-400/1100	110	-	-	•	•
150-500/900	90	-	-	•	•
150-500/1100	110	-	-	•	•
150-500/1320	132	-	-	•	•
150-500/1600	160	-	-	•	•
150-500/2000	200	-	-	•	•

SIZE NSC..4	kW	VERSION			
		NSCE	NSCS	NSCF	NSCC
200-250/185	18.5	-	•	•	•
200-250/220	22	-	•	•	•
200-250/300A	30	-	•	•	•
200-250/300	30	-	•	•	•
200-315/300	30	-	-	•	•
200-315/370	37	-	•	•	•
200-315/450	45	-	•	•	•
200-315/550	55	-	•	•	•
200-315/750	75	-	•	•	•
200-400/750A	75	-	-	•	•
200-400/750	75	-	-	•	•
200-400/900	90	-	-	•	•
200-400/1100	110	-	-	•	•
200-400/1320	132	-	-	•	•
200-500/1320	132	-	-	•	•
200-500/1600	160	-	-	•	•
200-500/2000	200	-	-	•	•
200-500/2500	250	-	-	•	•
200-500/3150	315	-	-	•	•
250-315/370	37	-	•	•	•
250-315/450	45	-	•	•	•
250-315/550	55	-	•	•	•
250-315/750	75	-	•	•	•
250-400/750	75	-	-	•	•
250-400/900	90	-	-	•	•
250-400/1100	110	-	-	•	•
250-400/1320	132	-	-	•	•
250-400/1600	160	-	-	•	•
250-400/2000	200	-	-	•	•
250-500/1600	160	-	-	•	•
250-500/2000	200	-	-	•	•
250-500/2500	250	-	-	•	•
250-500/3150	315	-	-	•	•
250-500/3550	355	-	-	•	•
300-350/750A	75	-	-	•	•
300-350/750	75	-	-	•	•
300-350/900	90	-	-	•	•
300-350/1100	110	-	-	•	•
300-400/1100	110	-	-	•	•
300-400/1320	132	-	-	•	•
300-400/1600	160	-	-	•	•
300-400/2000	200	-	-	•	•
300-400/2500	250	-	-	•	•
300-450/1600	160	-	-	•	•
300-450/2000	200	-	-	•	•
300-450/2500	250	-	-	•	•
300-450/3150	315	-	-	•	•

• = Available

Nsc2_models-4p50-en_b_sc

e-NSC SERIES AVAILABLE MATERIALS

Various material configurations are available to fit the needs of different pumped mediums and applications requirements. Below are the specifics regarding the material configurations and their availability for the different pump sizes. The material identification codes are the same used in the pump description (see page 8).

MATERIAL CONFIGURATION

COMPONENTS	CS	CC/DC	CB/DB	CN/DN	NN	RN	RR
Volute casing	Cast iron	Cast iron/Ductile iron			Stainless steel	Duplex	Duplex
Impeller	Stainless steel	Cast iron	Bronze	Stainless steel	Stainless steel		Duplex
Casing cover	Cast iron	Cast iron/Ductile iron			Stainless steel	Duplex	Duplex
Stub shaft	Stainless steel				Duplex		
Wear ring	Stainless steel				Duplex		
Impeller lock nut and washer	Stainless steel						Duplex
Impeller key	Stainless steel						Duplex
Fill and drain plugs	Galvanized carbon steel / Stainless steel *				Stainless steel	Duplex	
Motor adapter	Cast iron						

Stub shaft and wear rings in Duplex are available as an option for all pump sizes.
For further informations, see the pages [15-21](#).

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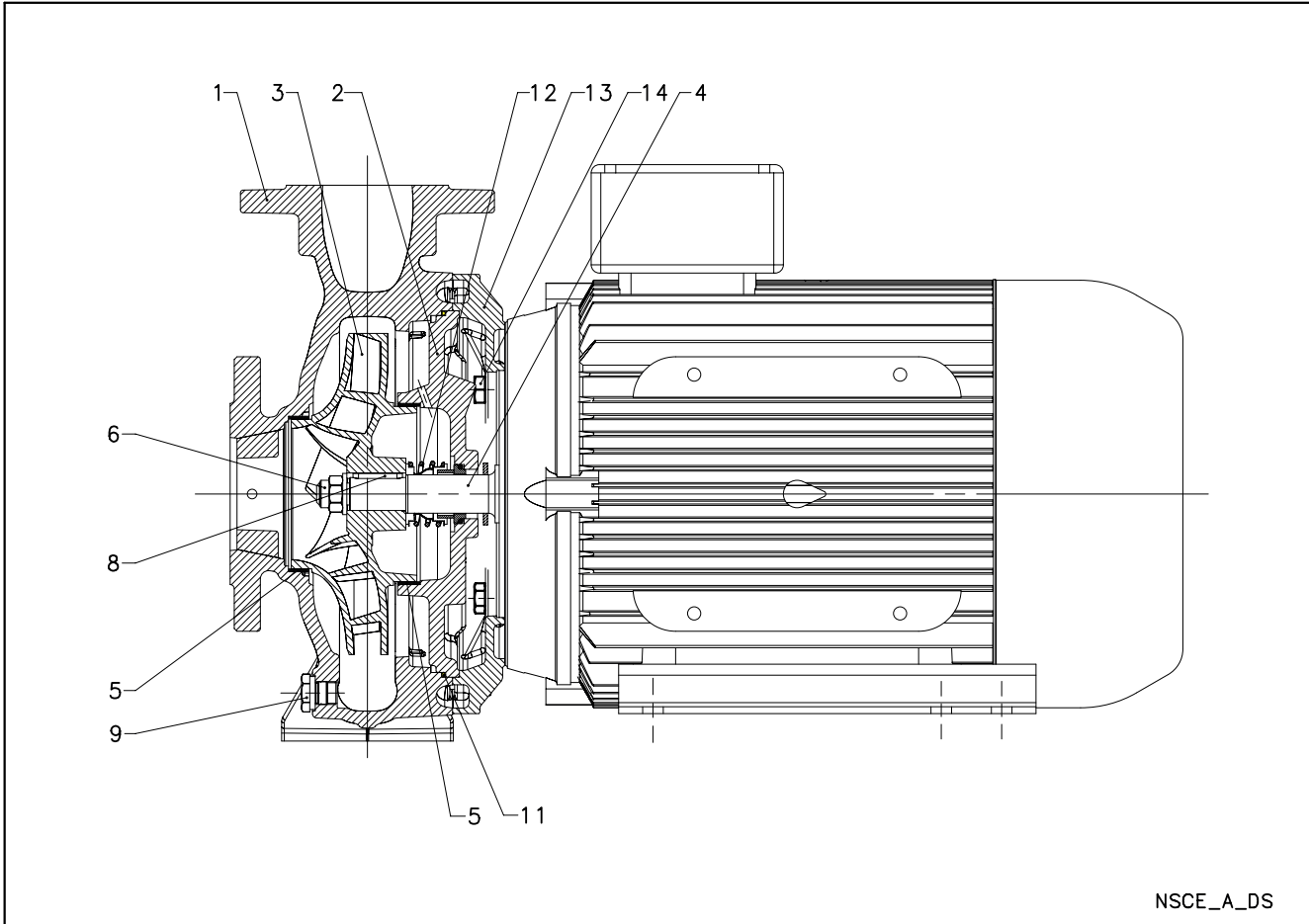
AVAILABLE MATERIALS FOR CASING AND IMPELLER PER PUMP SIZE

DISCHARGE SIZE	IMPELLER SIZE						
	125	160	200	250	315 / 316	400	500
32	CS	CS	CS	CS			
40	CS	CS	CS	CS			
50	CS	CS	CS	CS	CC-CB-CN NN-RR		
65	CC-CB-CN NN-RR	CC-CB-CN NN-RR	CC-CB-CN NN-RR	CC-CB-CN NN-RR	CC-CB-CN NN-RR		
80		CC-CB-CN NN-RR	CC-CB-CN NN-RR	CC-CB-CN NN-RR	CC-CB-CN NN-RR	CC-CB-CN NN-RR	
100		CC-CB-CN NN-RR	CC-CB-CN NN-RR	CC-CB-CN NN-RR	CC-CB-CN NN-RR	CC-CB-CN NN-RR	
125			CC-CB-CN NN-RR	CC-CB-CN NN-RR	CC-CB-CN NN-RR	CC-CB-CN NN-RR	
150			CC-CB-CN NN-RR	CC-CB-CN NN-RR	CC-CB-CN NN-RR	CC-CB-CN NN-RR	DC-DB-DN RN-RR
200				DC-DB-DN RN-RR	DC-DB-DN RN-RR	DC-DB-DN RN-RR	DC-DB-DN RN-RR
250					DC-DB-DN RN-RR	DC-DB-DN RN-RR	DC-DB-DN RN-RR
300					DC-DB-DN RN-RR	DC-DB-DN RN-RR	DC-DB-DN RN-RR

Nsc_models-en_b_tm

NSCE SERIES

ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS



NSCE_A_DS

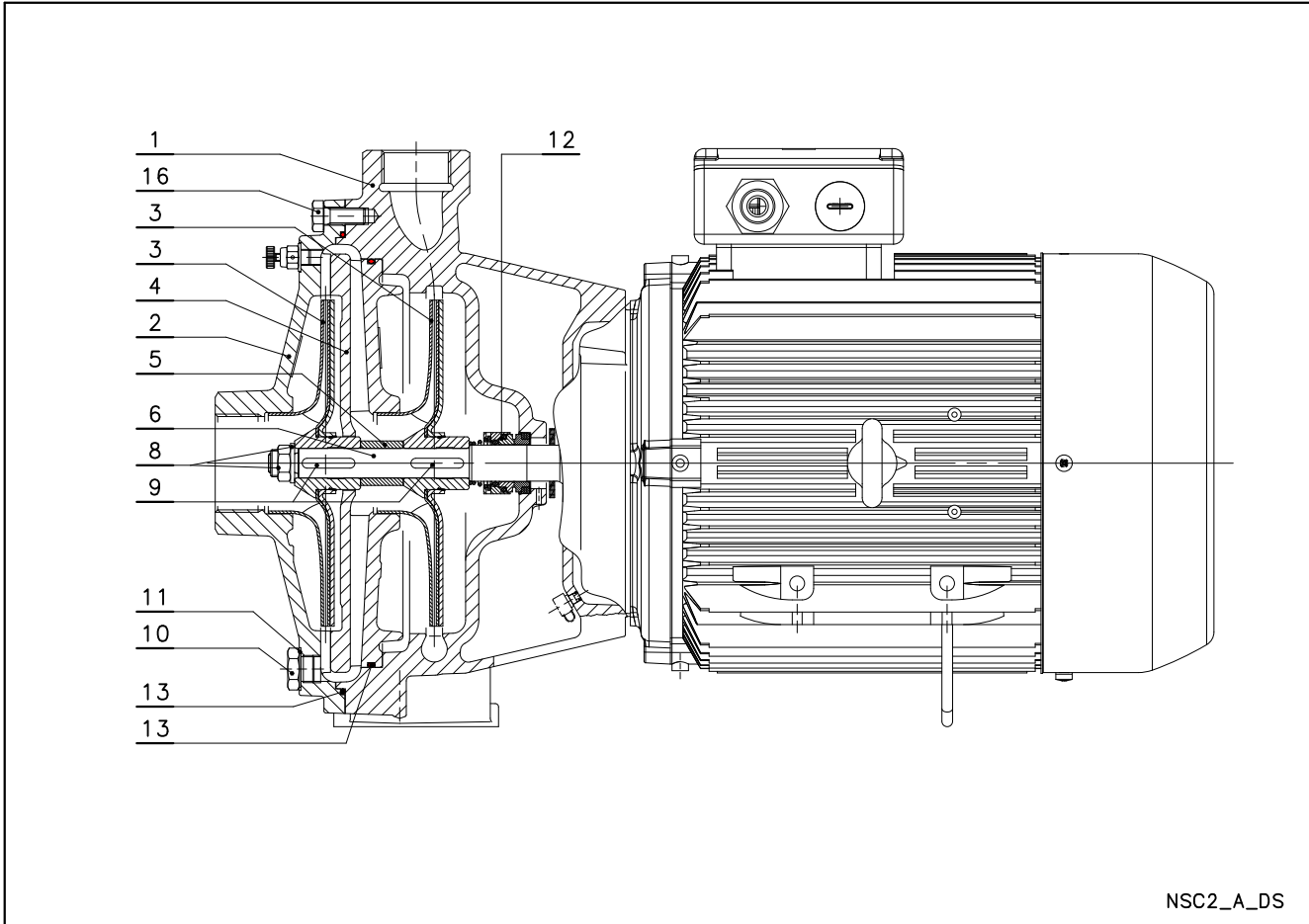
REF. N.	PART	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Volute casing	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
2	Casing cover	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
3	Impeller (32, 40, 50)	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
		Cast iron	EN 1561 - GJL-200 (JL1030)	ASTM Class 30
		Bronze	EN 1982 - CuSn10-C (CC480K)	UNS C90700
		Stainless steel	EN 10213-GX5CrNiMo-19-11-2 (1.4408)	ASTM A743 CF8M
3	Impeller (65, 80)	Duplex	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	ASTM A743 CD4MCu
4	Shaft extension	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-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	Motor adapter *	Aluminium	EN 1706-AC-AISI11Cu2 (Fe) (AC46100)	-
	Motor adapter	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
14	Volute casing fastening bolts and screws	Galvanized steel		

* 2/4 pole: 32/40/50-125, 32/40-160

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NSC2 SERIES

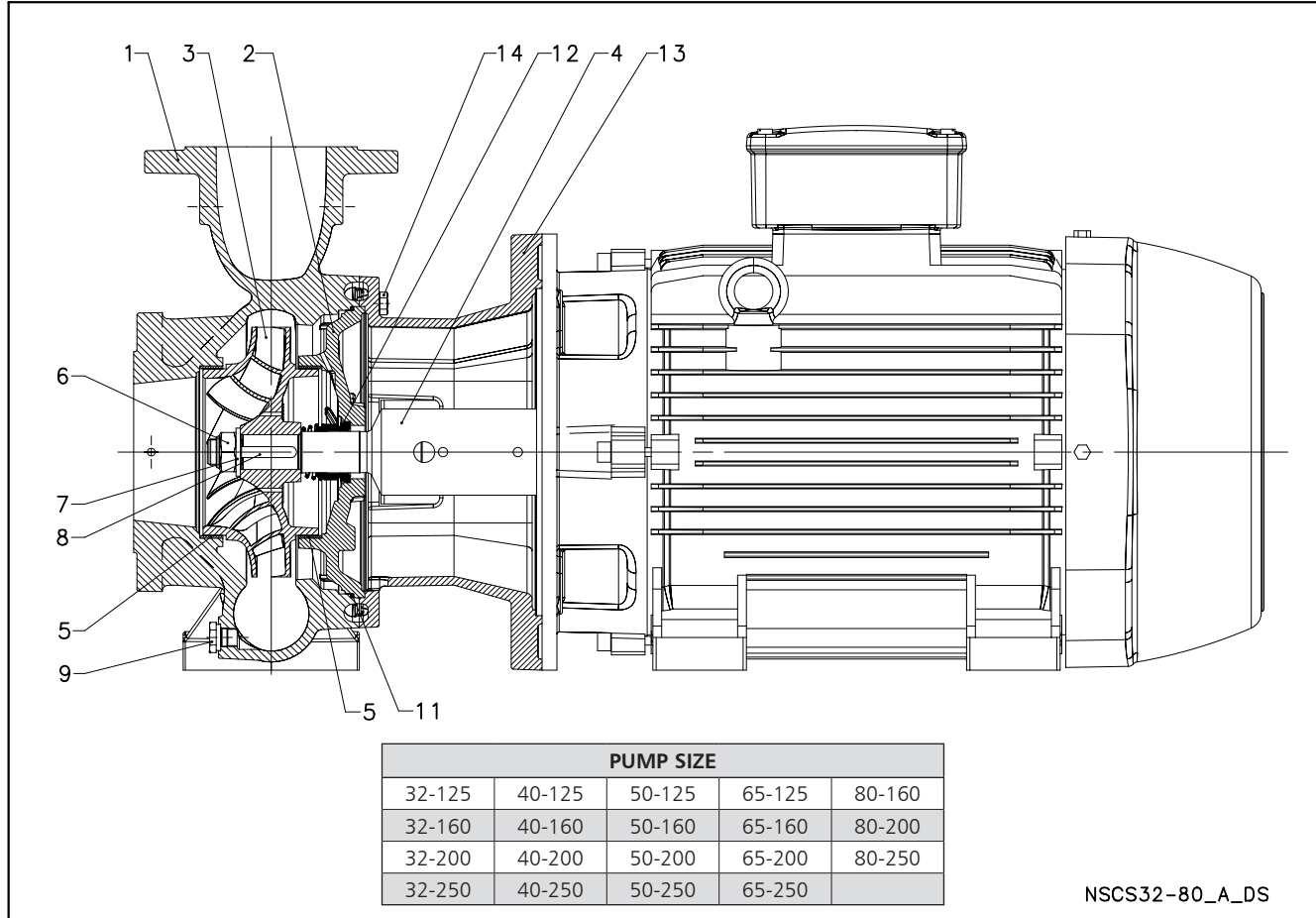
ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS



REF. N.	PART	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Pump body	Cast iron	EN 1561-GJL-200 (JL1030)	ASTM Class 25
2	Suction flange	Cast iron	EN 1561-GJL-200 (JL1030)	ASTM Class 25
3	Impeller	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
4	Diffuser	Cast iron	EN 1561-GJL-200 (JL1030)	ASTM Class 25
5	Impeller spacer	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
6	Shaft extension	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
8	Impeller lock nut and washer	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
9	Tab	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
10	Fill and drain plugs	Stainless steel	EN 10088-3-X8CrNiS18-9 (1.4305)	AISI 303
11	Fill and drain plugs seals	EPDM (standard version)		
12	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
13	O-Ring	EPDM (standard version)		
16	Pump body fastening bolts and screws	Galvanized steel		

Nsc2-en_b_tm

NSCS SERIES ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS

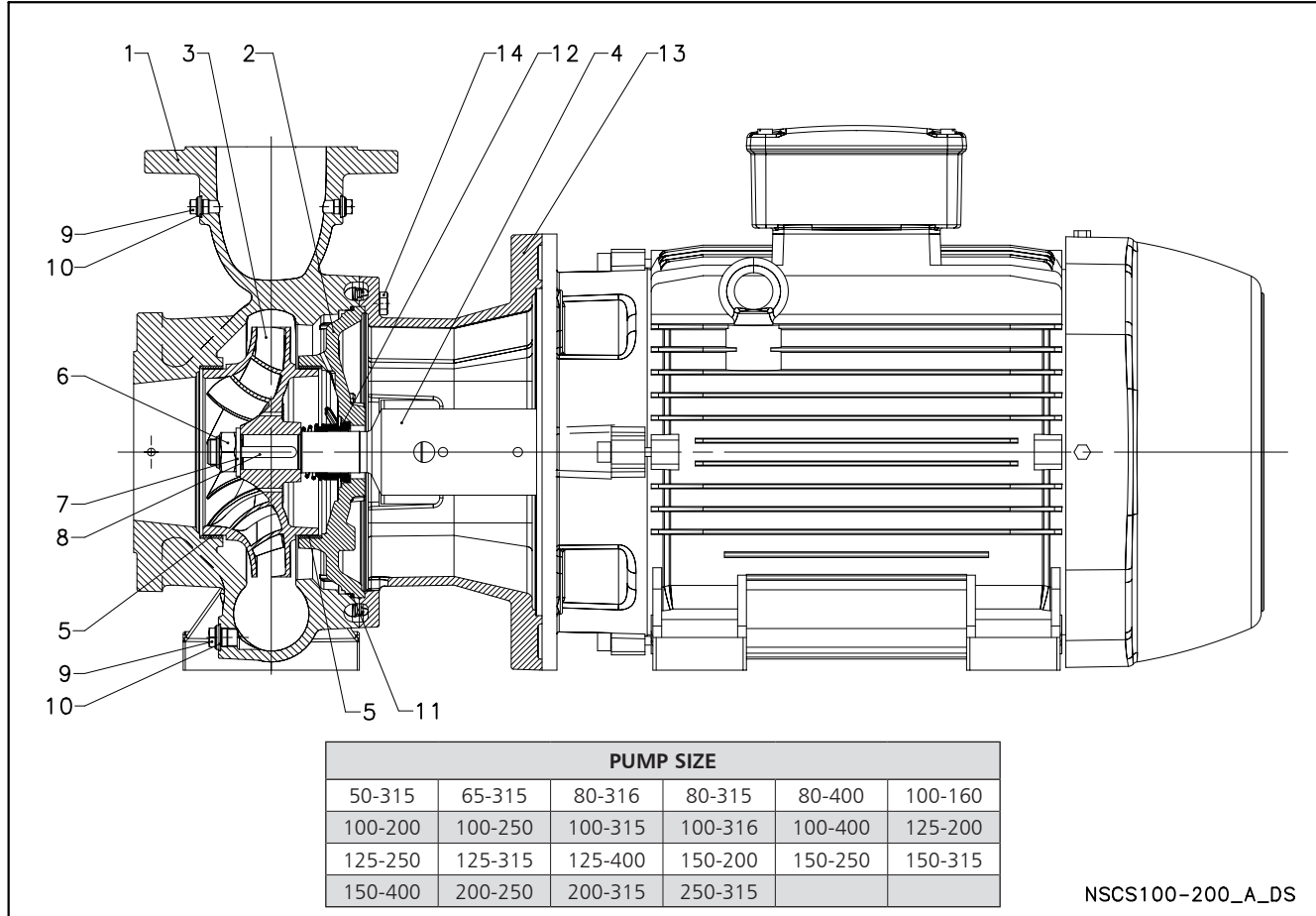


REF. N.	PART	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Volute casing	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
	Volute casing (65, 80)	Stainless steel	EN 10213-GX2CrNiMo-19-11-2 (1.4408)	ASTM A743 CF8M
2	Casing cover	Duplex	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	ASTM A743 CD4MCu
	Casing cover (65, 80)	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
		Stainless steel	EN 10213-GX5CrNiMo-19-11-2 (1.4408)	ASTM A743 CF8M
3	Impeller (32, 40, 50)	Duplex	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	ASTM A743 CD4MCu
		Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
	Impeller (65, 80)	Cast iron	EN 1561 - GJL-200 (JL1030)	ASTM Class 30
		Bronze	EN 1982 - CuSn10-C (CC480K)	UNS C90700
4	Stub shaft	Stainless steel	EN 10213-GX2CrNiMo-19-11-2 (1.4408)	ASTM A743 CF8M
		Duplex	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	ASTM A743 CD4MCu
	Stub shaft (65, 80)	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
5	Wear ring	Stainless steel	EN 10088-1-X17CrNi16-2 (1.4057)	AISI 431
	Wear ring (65, 80)	Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
6	Impeller lock nut and washer	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
	Impeller lock nut and washer (65, 80)	Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
8	Impeller key	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
	Impeller key (65, 80)	Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
9	Fill and drain plugs	Stainless steel	EN 10088-3-X8CrNiS18-9 (1.4305)	AISI 303
	Fill and drain plugs (65, 80)	Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
11	O-Ring	EPDM (versione standard)		
12	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
13	Mechanical seal (65, 80)	Antimony impregnated carbon / Silicon carbide / EPDM (duplex version)		
13	Adapter *	Aluminium	EN 1706-AC-AISI11Cu2 (Fe) (AC46100)	-
	Adapter	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
	Motor adapter	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
14	Volute casing fastening bolts and screws	Galvanized steel		
	Volute casing fastening bolts and screws	Stainless steel	A4 (~ 1.4401)	

* 2/4 pole: 32/40/50-125, 32/40-160

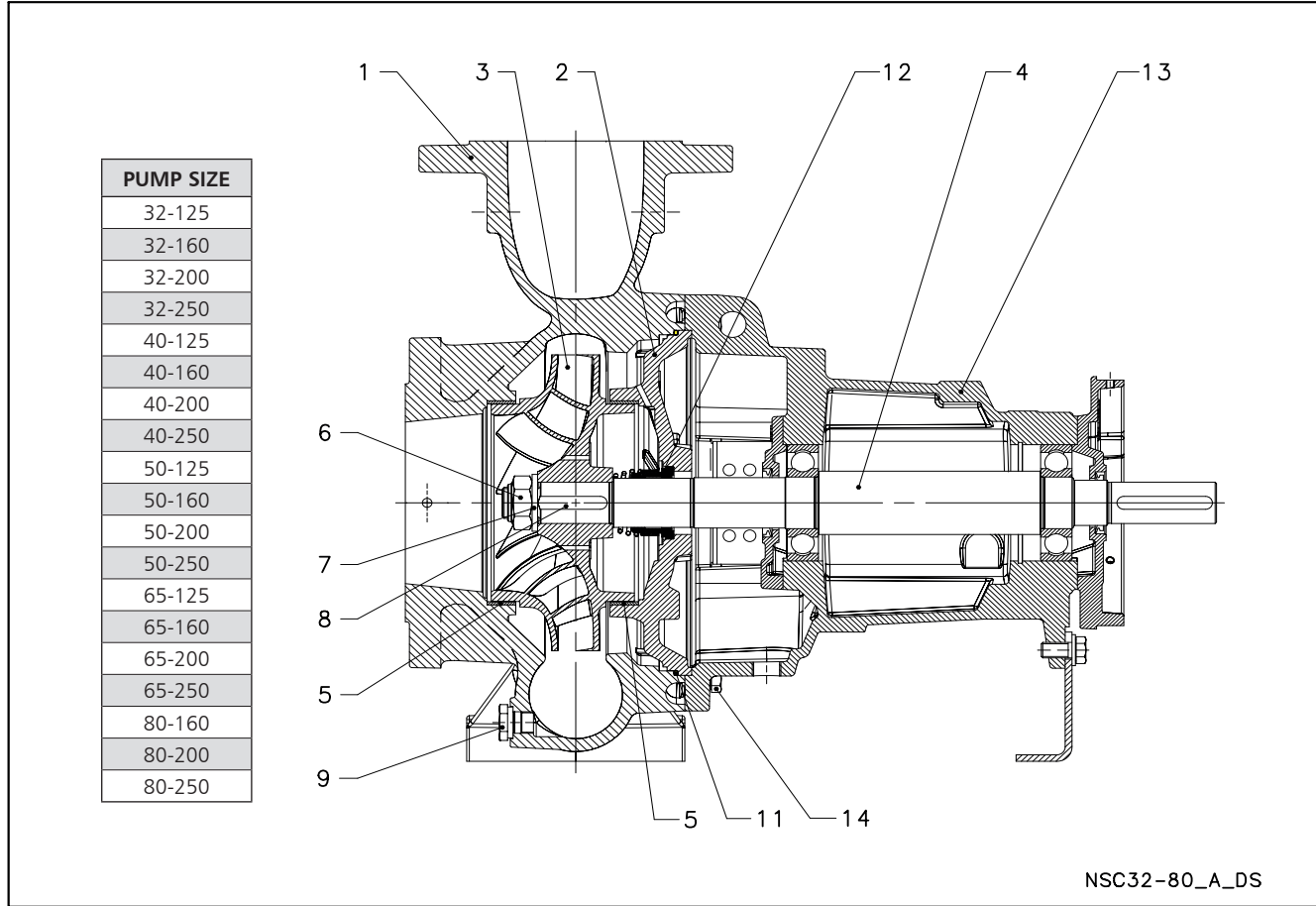
NSCS SERIES

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)	
		Stainless steel	EN 10213-GX5CrNiMo-19-11-2 (1.4408)	
		Duplex	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	
	Volute casing (200-250, 200-315, 250-315)	Cast ductile iron	EN 1563 - EN-GJS400-15 (EN-JS1030)	
2	Casing cover	Cast iron	EN 1561 - GJL-250 (JL1040)	
		Stainless steel	EN 10213-GX5CrNiMo-19-11-2 (1.4408)	
		Duplex	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	
		Cast ductile iron	EN 1563 - EN-GJS400-15 (EN-JS1030)	
	Casing cover (200-250, 200-315, 250-315)	Cast ductile iron	EN 1563 - EN-GJS400-15 (EN-JS1030)	
3	Impeller	Cast iron	EN 1561 - GJL-200 (JL1030)	
		Bronzo	EN 1982 - CuSn10-C (CC480K)	
		Stainless steel	EN 10213-GX5CrNiMo-19-11-2 (1.4408)	
		Duplex	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	
4	Stub shaft	Stainless steel	EN 10088-1-X17CrNi16-2 (1.4057)	
		Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	
5	Wear ring	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	
		Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	
6	Impeller nut	Stainless steel	A4 (~ 1.4401)	
		Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	
7	Impeller washer	Stainless steel	A4 (~ 1.4401)	
		Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	
8	Impeller key	Stainless steel	EN 10088 - X6CrNiMo17-12-2 (1.4571)	
		Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	
9	Plug	Galvanized carbon steel		
		Stainless steel	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	
		Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	
10	Gasket	Asbestos-free synthetic fiber AFM 34		
11	O-Ring	EPDM (versione standard)		
12	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
		Antimony impregnated carbon / Silicon carbide / EPDM (duplex version)		
13	Motor adapter	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
14	Volute - casing fastening screws	Carbon steel		
		Stainless steel		
			A4	

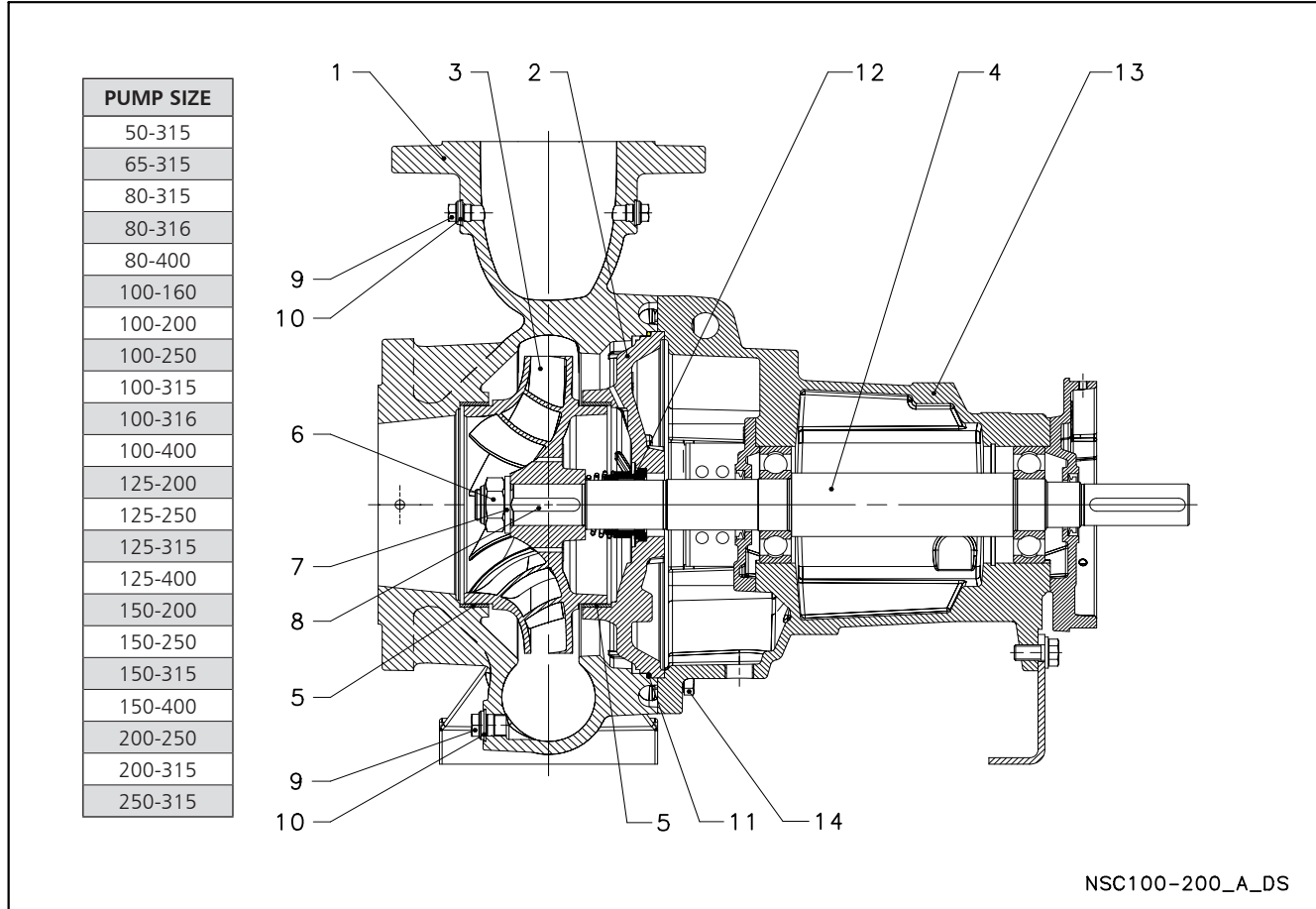
NSC, NSCF, NSCC SERIES ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS



REF. N.	PART	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Volute casing	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
	Volute casing (65, 80)	Stainless steel Duplex	EN 10213-GX5CrNiMo-19-11-2 (1.4408) EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	ASTM A743 CF8M ASTM A743 CD4MCu
2	Casing cover	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
	Casing cover (65, 80)	Stainless steel Duplex	EN 10213-GX5CrNiMo-19-11-2 (1.4408) EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	ASTM A743 CF8M ASTM A743 CD4MCu
3	Impeller (32, 40, 50)	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
	Impeller (65, 80)	Cast iron	EN 1561 - GJL-200 (JL1030)	ASTM Class 30
		Bronze	EN 1982 - CuSn10-C (CC480K)	UNS C90700
		Stainless steel Duplex	EN 10213-GX5CrNiMo-19-11-2 (1.4408) EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	ASTM A743 CF8M ASTM A743 CD4MCu
4	Stub shaft	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
	Stub shaft (65-250, 80-200, 80-250)	Stainless steel	EN 10088-1-X17CrNi16-2 (1.4057)	AISI 431
	Stub shaft (65, 80)	Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
5	Wear ring	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
	Wear ring (65, 80)	Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
6	Impeller lock nut and washer	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
	Impeller lock nut and washer (65, 80)	Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
8	Impeller key	Stainless steel	EN 10088-1-X2CrNiMo17-12-2 (1.4404)	AISI 316L
	Impeller key (65, 80)	Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
9	Fill and drain plugs	Stainless steel	EN 10088-3-X8CrNiS18-9 (1.4305)	AISI 303
	Fill and drain plugs (65, 80)	Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
11	O-Ring	EPDM (versione standard)		
12	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
13	Mechanical seal (65, 80)	Antimony impregnated carbon / Silicon carbide / EPDM (duplex version)		
13	Adapter *	Aluminium	EN 1706-AC-AISi11Cu2 (Fe) (AC46100)	-
	Adapter	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
	Motor adapter	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
14	Volute casing fastening bolts and screws	Galvanized steel		
	Volute casing fastening bolts and screws	Stainless steel	A4 (~ 1.4401)	

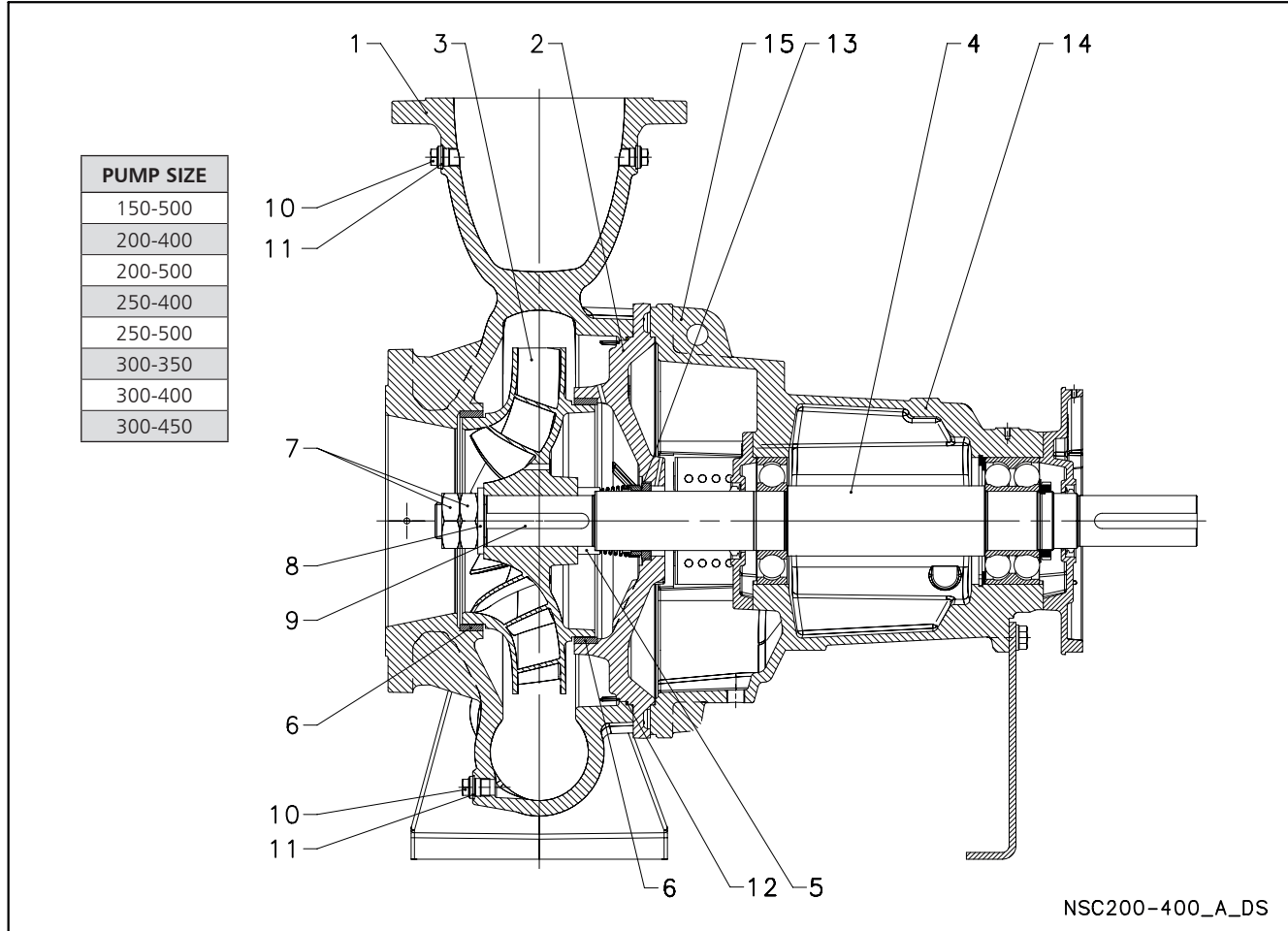
* 2/4 pole: 32/40/50-125, 32/40-160

NSC, NSCF, NSCC 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
		Stainless steel	EN 10213-GX5CrNiMo-19-11-2 (1.4408)	ASTM A743 CF8M
		Duplex	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	ASTM A743 CD4MCu
	Volute casing (200-250, 200-315, 250-315)	Cast ductile iron	EN 1563 - EN-GJS400-15 (EN-JS1030)	ASTM A536 40-60-18
2	Casing cover	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
		Stainless steel	EN 10213-GX5CrNiMo-19-11-2 (1.4408)	ASTM A743 CF8M
		Duplex	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	ASTM A743 CD4MCu
	Casing cover (200-250, 200-315, 250-315)	Cast ductile iron	EN 1563 - EN-GJS400-15 (EN-JS1030)	ASTM A536 40-60-18
3	Impeller	Cast iron	EN 1561 - GJL-200 (JL1030)	ASTM Class 30
		Bronze	EN 1982 - CuSn10-C (CC480K)	UNS C90700
		Stainless steel	EN 10213-GX5CrNiMo-19-11-2 (1.4408)	ASTM A743 CF8M
		Duplex	EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	ASTM A743 CD4MCu
4	Shaft	Stainless steel	EN 10088-1-X17CrNi16-2 (1.4057)	AISI 431
		Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
5	Wear ring	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
		Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
6	Impeller nut	Stainless steel	A4 (~ 1.4401)	
		Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
7	Impeller washer	Stainless steel	A4 (~ 1.4401)	
		Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
8	Impeller key	Stainless steel	EN 10088 - X6CrNiMo17-12-2 (1.4571)	AISI 316Ti
		Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
9	Plug	Galvanized carbon steel		
		Stainless steel	EN 10088 - X6CrNiMo17-12-2 (1.4571)	AISI 316Ti
		Duplex	EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
10	Gasket	Asbestos-free synthetic fiber AFM 34		
11	O-Ring	EPDM (standard version)		
12	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
		Antimony impregnated carbon / Silicon carbide / EPDM (duplex version)		
13	Bearing bracket	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
14	Volute - casing fastening screws	Carbon steel		
		Stainless steel	A4 (~ 1.4401)	

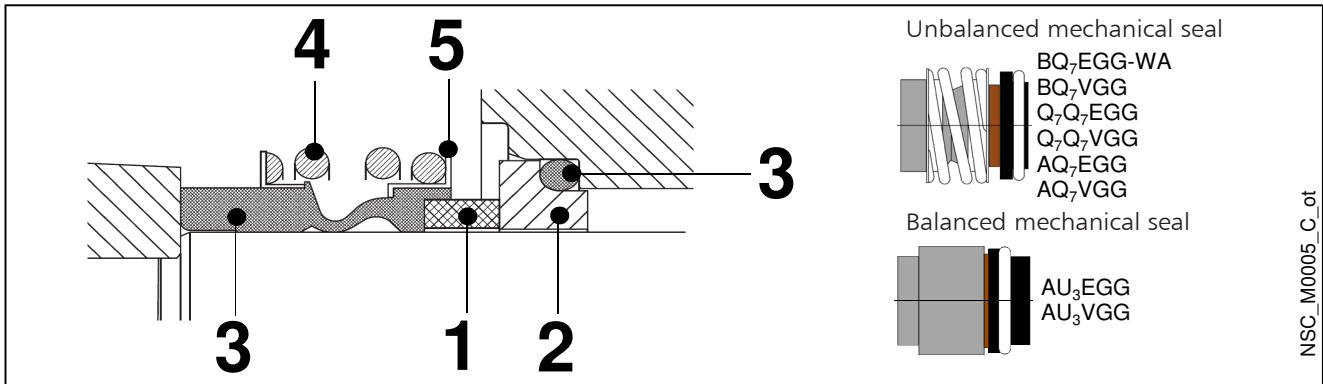
NSC, NSCF, NSCC SERIES ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS



REF. N.	PART	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Volute casing	Cast ductile iron Duplex	EN 1563 - EN-GJS400-15 (EN-JS1030) EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	ASTM A536 40-60-18 ASTM A743 CD4MCu
2	Casing cover	Cast ductile iron Duplex	EN 1563 - EN-GJS400-15 (EN-JS1030) EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	ASTM A536 40-60-18 ASTM A743 CD4MCu
3	Impeller	Cast iron Bronze Stainless steel Duplex	EN 1561 - GJL-200 (JL1030) EN 1982 - CuSn10-C (CC480K) EN 10213-GX5CrNiMo-19-11-2 (1.4408) EN 10213-GX2CrNiMoCuN25-6-3-3 (1.4517)	ASTM Class 30 UNS C90700 ASTM A743 CF8M ASTM A743 CD4MCu
4	Shaft	Stainless steel Duplex	EN 10088-1-X17CrNi16-2 (1.4057) EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	AISI 431 ASTM A182 F51
5	Spacer ring	Stainless steel Duplex	EN 10088-1-X17CrNi16-2 (1.4057) EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	AISI 431 ASTM A182 F51
6	Wear ring	Stainless steel Duplex	EN 10088-X5CrNi18-10 (1.4301) EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	AISI 304 ASTM A182 F51
7	Impeller nut	Stainless steel Duplex	A4 (~ 1.4401) EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
8	Impeller washer	Stainless steel Duplex	A4 (~ 1.4401) EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	ASTM A182 F51
9	Impeller key	Stainless steel Duplex	EN 10088 - X6CrNiMo17-12-2 (1.4571) EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	AISI 316Ti ASTM A182 F51
10	Plug	Galvanized carbon steel Stainless steel Duplex	 EN 10088 - X6CrNiMo17-12-2 (1.4571) EN 10088-3-X2CrNiMoN22-5-3 (1.4462)	 AISI 316Ti ASTM A182 F51
11	Gasket	Asbestos-free synthetic fiber AFM 34		
12	O-Ring	EPDM (standard version)		
13	Mechanical seal	Carbon / Silicon carbide / EPDM (standard version)		
14	Bearing bracket	Cast iron	EN 1561 - GJL-250 (JL1040)	ASTM Class 35
15	Volute - casing fastening screws	Cast iron Stainless steel	 A4 (~ 1.4401)	

**e-NSC SERIES
MECHANICAL SEALS**

Elastomer bellow seal with mounting dimensions according to EN 12756 and ISO 3069



POSITION 1 - 2	POSITION 3	POSITION 4 - 5
B : Resin impregnated carbon	E : EPDM	G : AISI 316
A : Antimony impregnated carbon	V : FKM (FPM)	
Q₇ : Silicon carbide		
U₃ : Tungsten carbide		

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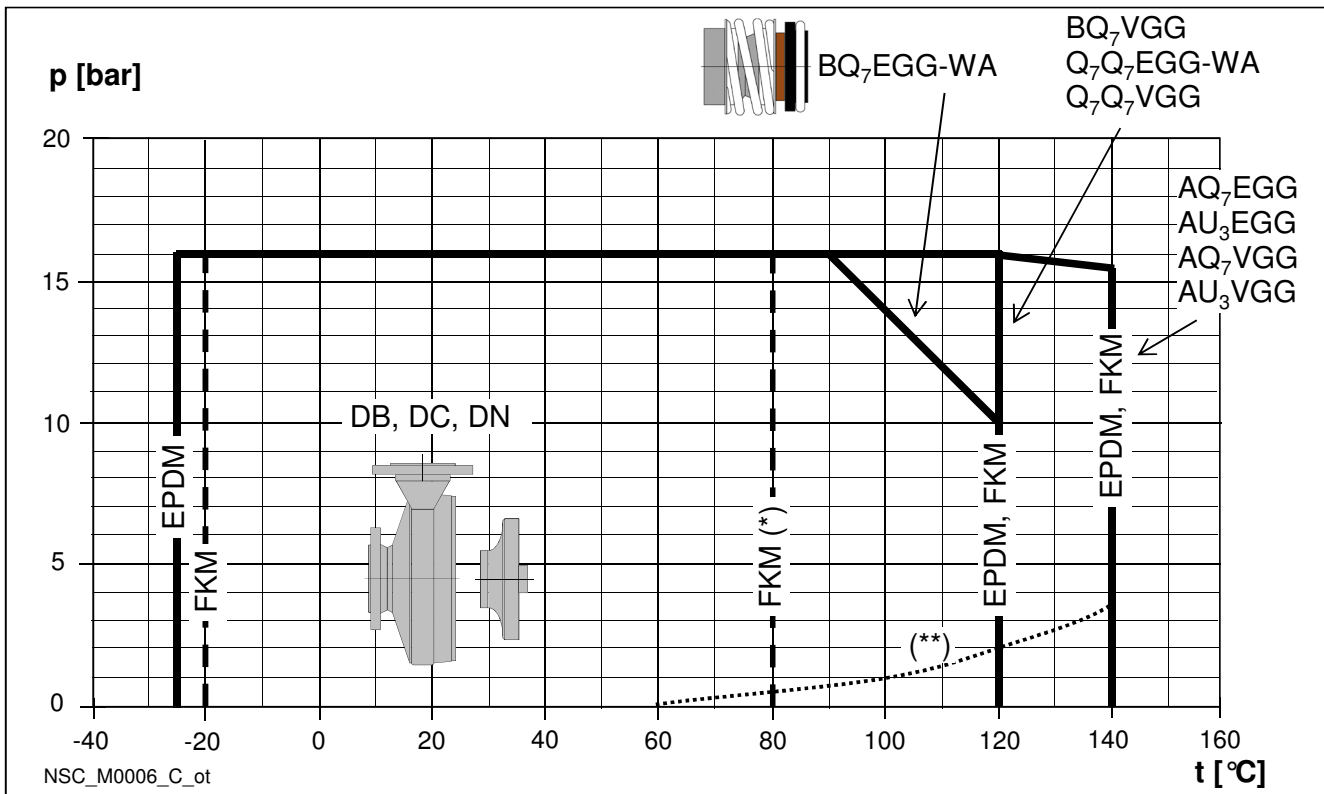
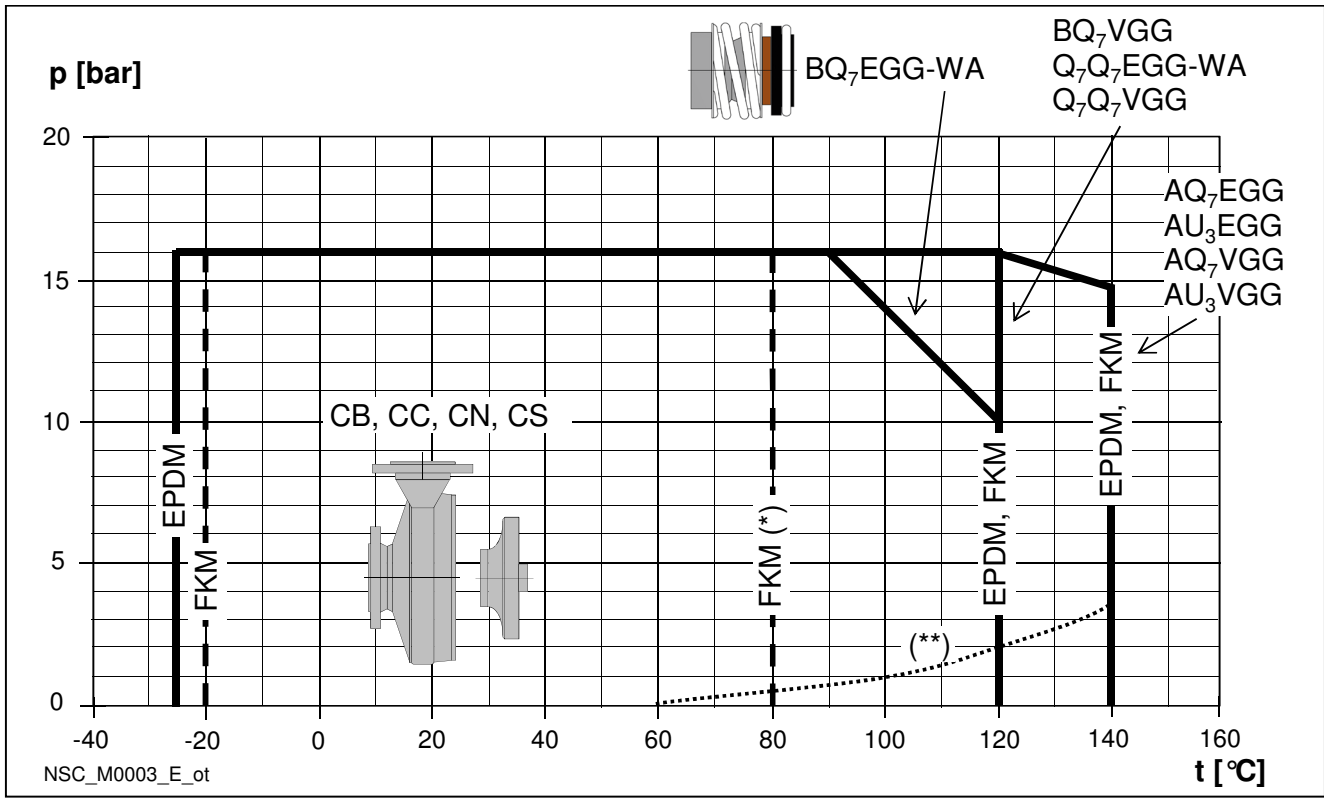
TYPE	POSITION					PRESSURE (bar)	RANGE TEMPERATURE (°C)
	1 ROTATING ASSEMBLY	2 FIXED ASSEMBLY	3 ELASTOMERS	4 SPRINGS	5 OTHER COMPONENTS		
STANDARD MECHANICAL SEAL							
B Q7 E G G - WA	B	Q ₇	E	G	G	16/10	-25 ... +90/+120
OTHER TYPES OF MECHANICAL SEAL							
B Q7 V G G	B	Q ₇	V	G	G	16	-20 ... +120 ^{*)}
Q7 Q7 E G G - WA	Q ₇	Q ₇	E	G	G	16	-25 ... +120
Q7 Q7 V G G	Q ₇	Q ₇	V	G	G	16	-20 ... +120 ^{*)}
A Q7 E G G (Ø≤38)	A	Q ₇	E	G	G	16	-25 ... +140
A U3 E G G (Ø>38)	A	U ₃	E	G	G	16	-25 ... +140
A Q7 V G G (Ø≤38)	A	Q ₇	V	G	G	16	-20 ... +140 ^{*)}
A U3 V G G (Ø>38)	A	U ₃	V	G	G	16	-20 ... +140 ^{*)}

^{*)} for hot water: max. +80 °C

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e-NSC SERIES

PRESSURE/TEMPERATURE APPLICATION LIMITS FOR COMPLETE PUMP

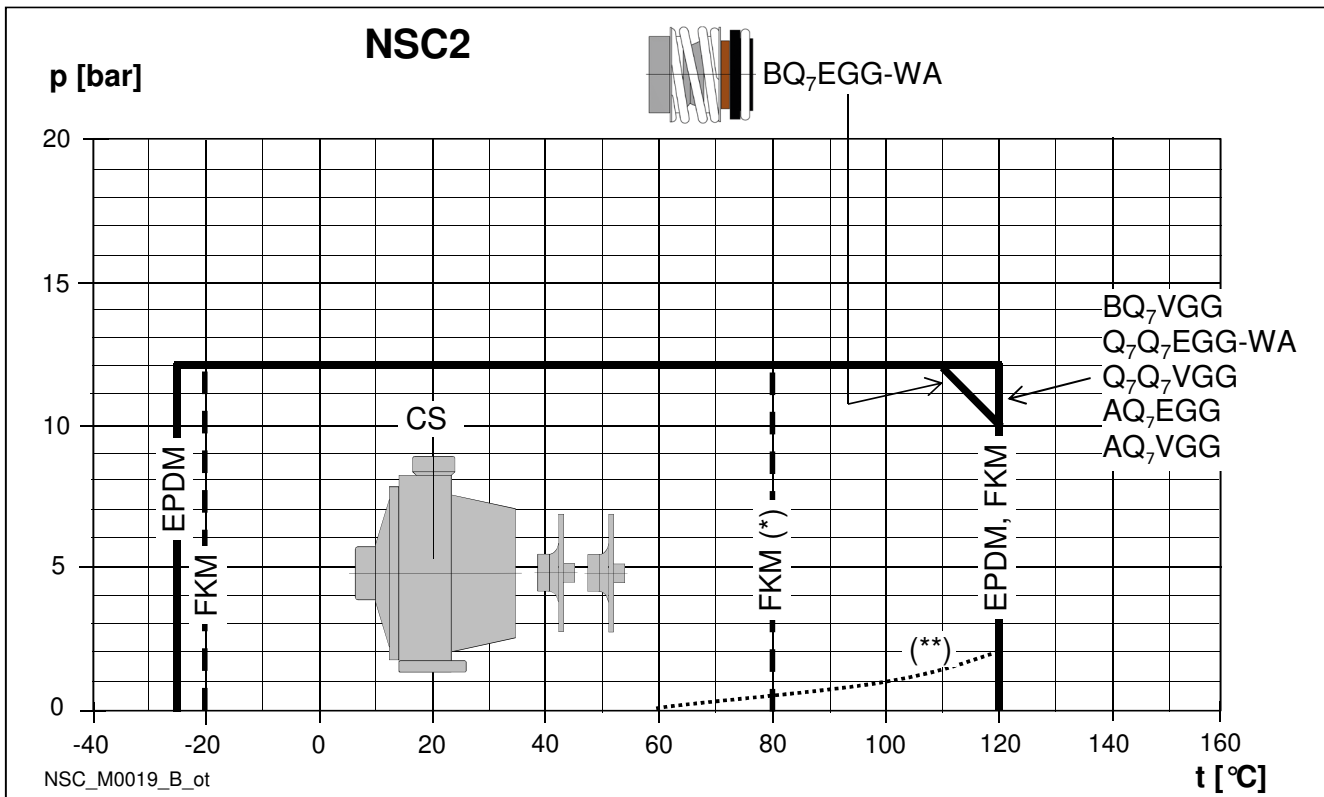
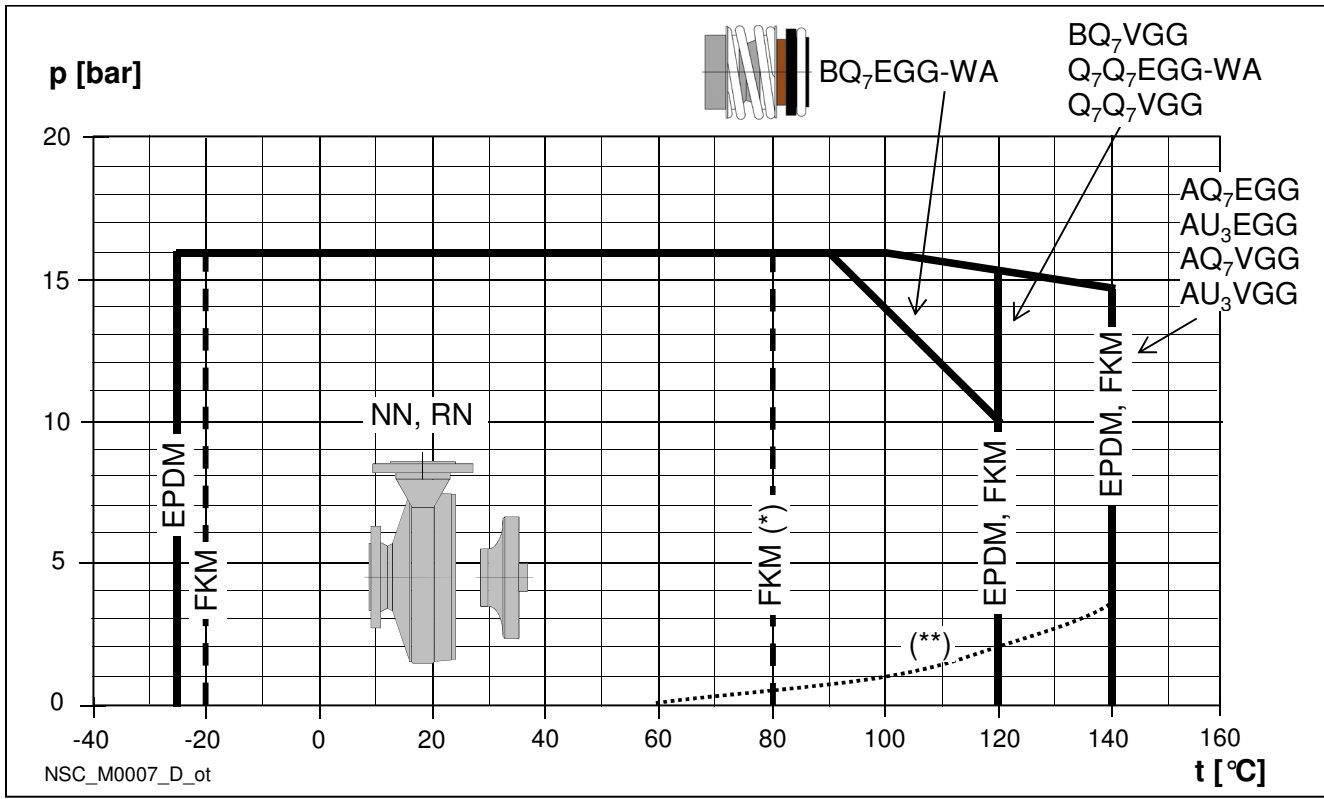


(*) hot water: max +80°C.

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

e-NSC SERIES

PRESSURE/TEMPERATURE APPLICATION LIMITS FOR COMPLETE PUMP



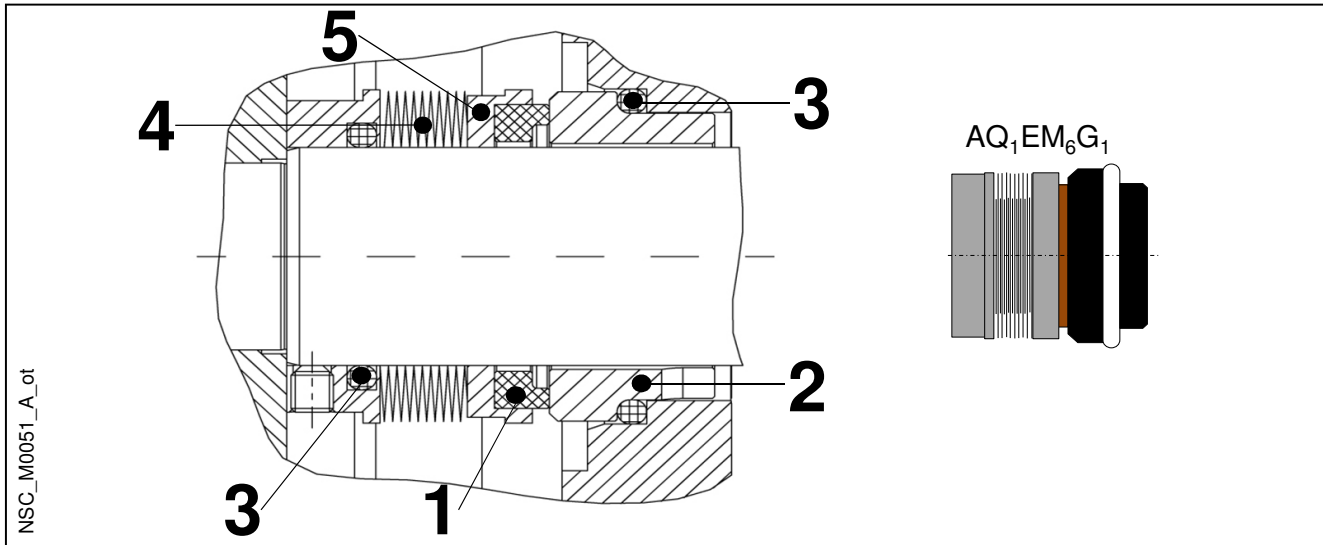
(*) hot water: max +80°C.

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

e-NSC SERIES

MECHANICAL SEALS FOR DUPLEX VERSION

Balanced metal bellows seal with mounting dimensions according to EN 12756 and ISO 3069



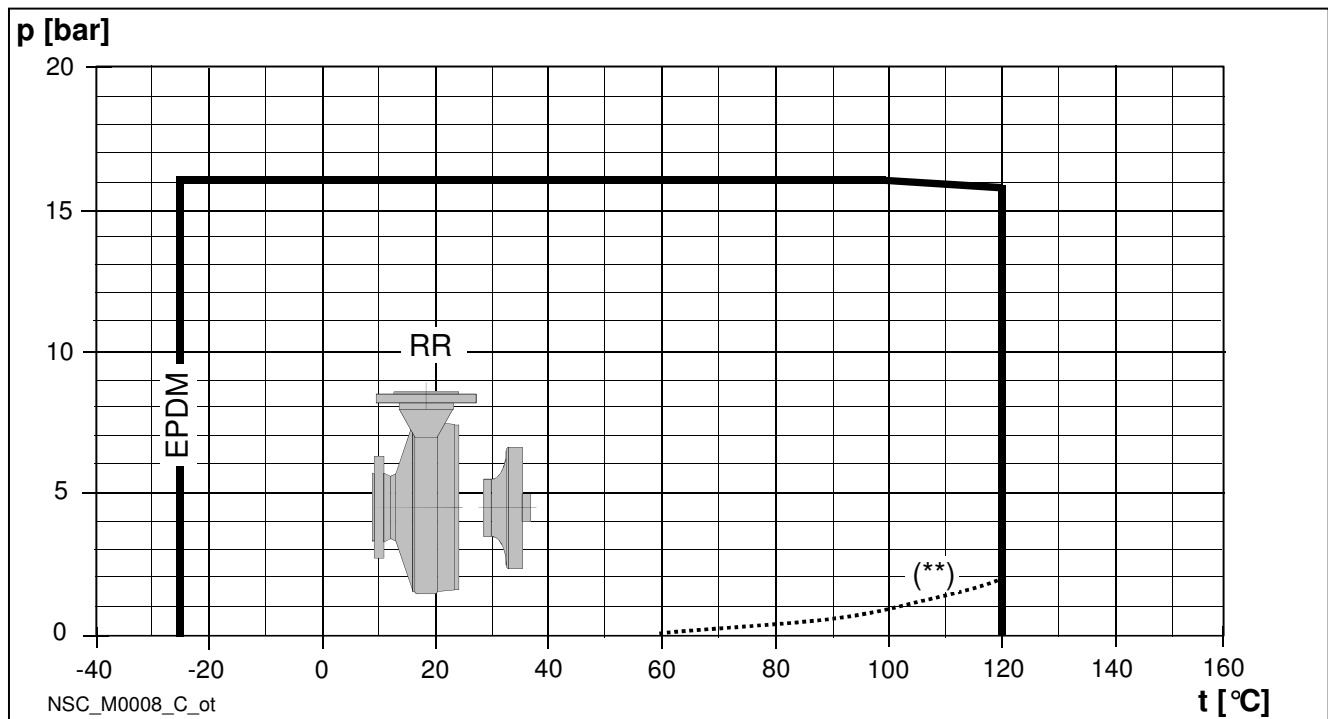
POSITION 1 - 2	POSITION 3	POSITION 4 - 5
A : Antimony impregnated carbon	E : EPDM	M6 : Inconel® 718
Q1 : Silicon carbide		G1 : Duplex

nsc_ten-mec_duplex-en_a_tm

TYPE	POSITION					PRESSURE (bar)	RANGE TEMPERATURE (°C)
	1 ROTATING ASSEMBLY	2 FIXED ASSEMBLY	3 ELASTOMERS	4 SPRINGS	5 OTHER COMPONENTS		
STANDARD MECHANICAL SEAL							
A Q ₁ E M ₆ G ₁	A	Q ₁	E	M ₆	G ₁	16	-25 ... +120

nsc_tipi-ten-mec-duplex-en_a_tc

PRESSURE/TEMPERATURE APPLICATION LIMITS FOR COMPLETE PUMP



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

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

- Short-circuit squirrel-cage motor, enclosed construction with external ventilation (TEFC).
- Rated power from 1,1 to 200 kW for 2-pole range and from 0,25 to 355 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), **IE3** efficiency level (power < 75 kW), **IE4** efficiency level (power < 201 kW) and **IE3** efficiency level (power < 1000 kW).
- Metric cable gland according to EN 50262.
- PTC included in motors with IEC size from 200 and above. (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.

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

P _N kW	MOTOR TYPE	IEC SIZE*	Construction Design	INPUT	CAPACITOR		DATA FOR 230 V 50 Hz VOLTAGE							Operating conditions **		
				CURRENT I _n (A) 220-240 V	μF	V	min ⁻¹	I _s / I _n	η %	cosφ	T _n Nm	T _s /T _n	T _m /T _n	Altitude above sea level (m)	T _{amb} min/max (°C)	ATEX
1,1	SM90RB14S2/1115 E2	90R	B14	6,26-5,93	30	450	2860	4,78	79,6	0,98	3,67	0,50	2,14	≤ 1000	-15 / 45	NO
1,5	PLM90B14S2/1155 E2	90R	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.

Nsce-motm-2p50-en_c_te

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

NSCE, NSC2 SERIES THREE-PHASE MOTORS AT 50 Hz, 2 POLES

P _N kW	Manufacturer		IEC SIZE*	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage				
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						cosφ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model										
1,1	SM90RB14S2/311 PE		90R	SPECIAL	2	50	0,79	8,31	3,63	3,95	3,95
1,5	SM90RB14S2/315 PE		90R				0,80	8,80	4,96	4,31	4,10
2,2	PLM90B14S2/322 E3		90				0,80	8,77	7,28	3,72	3,70
3	PLM90B14S2/330 E3		90				0,79	7,81	9,93	4,26	3,94
4	PLM112RB14S2/340 E3		112R				0,85	9,13	13,2	3,82	4,32
5,5	PLM1122FHE/355 E3		112				0,85	10,5	18,1	4,74	5,11
	PLM112B14S2/355 E3		112								
7,5	PLM1322FHE/375 E3		132				0,85	10,2	24,4	3,43	4,76
	PLM132B14S2/375 E3		132								
	PLM132B14S3/375 E3		132								
9,2	PLM132B14S2/392 E3		132				0,85	10,1	30,0	3,73	4,81
	PLM132B14S3/392 E3		132								
11	PLM132B14S2/3110 E3		132				0,86	9,89	35,9	3,46	4,59
	PLM132B14S3/3110 E3		132								
15	PLM160B34S3/3150 E3		160				0,88	9,51	48,6	2,73	4,32
18,5	PLM160B34S3/3185 E3		160				0,88	9,81	59,9	2,81	4,53
22	PLM160B34S3/3220 E3		160	0,85	10,9	71,1	3,26	5,12			

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

P _N kW	Efficiency η _N %																		IE
	Δ 220 V			Δ 230 V			Δ 240 V			Δ 380 V			Δ 400 V			Δ 415 V			
	Y 380 V			Y 400 V			Y 415 V			Y 660 V			Y 690 V						
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	
1,1	84,0	84,7	83,4	84,4	84,5	82,5	84,3	84,0	81,4	84,0	84,0	81,4	84,0	84,0	81,4	84,0	84,0	81,4	3
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	
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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.

Nsce-IE3-mott_2p50-en_b_te

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

NSCS SERIES
THREE-PHASE MOTORS AT 50 Hz, 2 POLES (up to 22 kW)

P _N kW	Manufacturer		IEC SIZE*	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage							
	Xylem Service Italia Srl Reg. No. 07520560967						cosφ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _n			
	Montecchio Maggiore Vicenza - Italia													
1,1	SM80B5/311 PE		80	B5	2	50	0,79	8,31	3,63	3,95	3,95			
1,5	SM90RB5/315 PE		90R				0,80	8,80	4,96	4,31	4,10			
2,2	PLM90B5/322 E3		90				0,80	8,77	7,28	3,72	3,70			
3	PLM100RB5/330 E3		100R				0,79	7,81	9,93	4,26	3,94			
4	PLM112RB5/340 E3		112R				0,85	9,13	13,2	3,82	4,32			
5,5	PLM132RB5/355 E3		132R				0,85	10,5	18,1	4,74	5,11			
7,5	PLM132B5/375 E3		132				0,85	10,2	24,4	3,43	4,76			
11	PLM160B35/3110 E3		160				B35	2	50	0,88	8,59	35,6	2,36	4,14
15	PLM160B35/3150 E3		160							0,88	9,51	48,6	2,73	4,32
18,5	PLM160B35/3185 E3		160							0,88	9,81	59,9	2,81	4,53
22	PLM180RB35/3220 E3		180R	0,85	10,9	71,1				3,26	5,12			

P _N kW	Voltage U _N V												η _N min ⁻¹	Operating conditions **			
	Δ			Y			Δ			Y				Altitude Above Sea Level (m)	T. amb min/max °C	ATEX	
	220 V	230 V	240 V	380 V	400 V	415 V	380 V	400 V	415 V	660 V	690 V						
	I _N (A)																
1,1	4,19	4,14	4,16	2,42	2,39	2,40	2,41	2,38	2,38	1,39	1,37	2870 ÷ 2900			≤ 1000	-15 / 50	No
1,5	5,56	5,49	5,51	3,21	3,17	3,18	3,21	3,18	3,19	1,85	1,84	2870 ÷ 2895					
2,2	7,97	7,90	7,98	4,6	4,56	4,61	4,57	4,54	4,57	2,64	2,62	2880 ÷ 2900					
3	11,0	11,0	11,2	6,35	6,33	6,44	6,29	6,27	6,34	3,63	3,62	2865 ÷ 2895					
4	13,6	13,4	13,4	7,87	7,75	7,74	7,80	7,62	7,61	4,50	4,40	2885 ÷ 2910					
5,5	18,1	17,9	18,1	10,4	10,4	10,4	10,6	10,5	10,7	6,10	6,05	2880 ÷ 2910					
7,5	24,8	24,4	24,3	14,3	14,1	14,0	14,4	14,1	14,2	8,32	8,16	2920 ÷ 2935					
11	35,0	33,9	33,0	20,2	19,6	19,1	20,4	19,6	19,2	11,8	13,3	2935 ÷ 2950					
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 %																		IE
	Δ 220 V Y 380 V			Δ 230 V Y 400 V			Δ 240 V Y 415 V			Δ 380 V Y 660 V			Δ 400 V Y 690 V			Δ 415 V			
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	
1,1	84,0	84,7	83,4	84,4	84,5	82,5	84,3	84,0	81,4	84,0	84,0	81,4	84,0	84,0	81,4	84,0	84,0	81,4	3
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	91,8	92,3	91,5	91,8	92,3	91,5	91,8	92,3	91,5	91,8	92,3	91,9	92,2	92,5	91,8	92,3	92,4	91,5	
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.

Nscs-IE3-mott_2p50-en_b_te

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

NSCS SERIES

THREE-PHASE MOTORS AT 50 Hz, 2 POLES (from 30 to 90 kW)

P _N kW	Manufacturer	IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage				
	OMEGA MOTOR SANAYI A.S. Dudullu Organize Sanayi Bölgesi 2. Cadde No: 10 34775 Ümraniye ISTANBUL/TURKEY Reg. No. 913733					cosφ	Is / I _N	T _N Nm	Ts/T _N	Tm/T _N
	Model									
30	3MAS 200LA2 B35 30KW E3	200	B35	2	50	0,88	7,8	97	2,6	3,1
37	3MAS 200LB2 B35 37KW E3	200				0,89	8,0	119	2,9	3,2
45	3MAS 225M2 B35 45KW E3	225				0,91	8,2	145	2,7	3,3
55	3MGS 250M2 B35 55KW E3	250				0,91	7,6	177	2,5	3,0
75	3MGS 280S2 B35 75KW E4	280				0,88	8,6	240	2,6	3,4
90	3MGS 280M2 B35 90KW E4	280				0,89	8,4	288	2,7	3,4

P _N kW	Voltage U _N V					η _N min ⁻¹	Operating conditions **		
	Δ			Y			Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
	380 V	400 V	415 V	660 V	690 V				
	I _N (A)								
30	54,9	52,7	50,4	31,7	30,2	2965	≤ 1000	-20 / +50	No
37	67,6	64,0	61,8	39,0	36,7	2960			
45	79,8	75,9	72,6	46,0	44,5	2965			
55	97,3	92,5	88,3	56,2	54,2	2970			
75	135,0	129,0	124,0	77,9	74,5	2985			
90	160,0	152,0	146,0	91,9	87,9	2985			

P _N kW	Efficiency η _N %									IE
	Δ 380 V Y 660 V			Δ 400 V Y 690 V			Δ 415 V			
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	
30	93,1	93,3	93,2	93,3	93,5	93,4	93,5	93,7	93,6	3
37	93,4	93,8	93,5	93,7	94,1	93,8	94,0	94,4	94,1	
45	93,8	94,0	93,4	94,0	94,2	93,6	94,2	94,4	93,8	
55	94,0	93,8	92,8	94,3	94,0	93,0	94,7	94,3	93,3	
75	95,6	95,7	95,0	95,6	95,7	95,0	95,6	95,7	95,0	
90	95,8	95,7	95,1	95,8	95,7	95,1	95,6	95,7	95,0	4

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

Nscs-mott90-2p50_en_e_te

NSCF, NSCC SERIES

THREE-PHASE MOTORS AT 50 Hz, 2 POLES (up to 18,5 kW)

P _N kW	Manufacturer		IEC SIZE*	Construction Design	N. of poles	f _N Hz	Data for 400 V / 50 Hz Voltage				
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						cosφ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model										
1,1	SM80B3/311 PE		80	B3	2	50	0,79	8,31	3,63	3,95	3,95
1,5	PLM90B3/315 E3		90				0,86	8,04	4,96	3,34	3,27
2,2	PLM90B3/322 E3		90				0,80	8,77	7,28	3,72	3,70
3	PLM100B3/330 E3		100				0,84	9,65	9,84	3,59	4,26
4	PLM112B3/340 E3		112				0,86	9,41	13,2	3,95	4,46
5,5	PLM132B3/355 E3		132				0,83	10,0	17,9	3,33	4,65
7,5	PLM132B3/375 E3		132				0,85	10,2	24,4	3,43	4,76
11	PLM160B3/3110 E3		160				0,88	8,59	35,6	2,36	4,14
15	PLM160B3/3150 E3		160				0,88	9,51	48,6	2,73	4,32
18,5	PLM160B3/3185 E3		160				0,88	9,81	59,9	2,81	4,53

P _N kW	Voltage U _N V												η _N min ⁻¹	Operating conditions **		
	Δ			Y			Δ			Y				Altitude above sea level (m)	T. amb min/max °C	ATEX
	220 V	230 V	240 V	380 V	400 V	415 V	380 V	400 V	415 V	660 V	690 V	660 V				
	I _N (A)															
1,1	4,19	4,14	4,16	2,42	2,39	2,40	2,41	2,38	2,38	1,39	1,37	2870 ÷ 2900		≤ 1000	-15 / 50	No
1,5	5,35	5,11	5,04	3,09	2,95	2,91	3,09	2,96	2,91	1,78	1,71	2865 ÷ 2890				
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	10,2	10,0	10,1	5,91	5,79	5,82	5,94	5,83	5,87	3,43	3,37	2895 ÷ 2920				
4	13,3	13,1	13,1	7,69	7,56	7,55	7,70	7,56	7,57	4,45	4,36	2885 ÷ 2905				
5,5	18,9	18,8	18,9	10,9	10,9	10,9	10,7	10,6	10,7	6,20	6,14	2925 ÷ 2940				
7,5	24,8	24,4	24,3	14,3	14,4	14,0	14,4	14,1	14,2	8,32	8,16	2920 ÷ 2935				
11	35,0	33,9	33,0	20,2	19,6	19,1	20,4	19,6	19,2	11,8	11,3	2935 ÷ 2950				
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				

P _N kW	Efficiency η _N %																		IE
	Δ 220 V			Δ 230 V			Δ 240 V			Δ 380 V			Δ 400 V			Δ 415 V			
	Y 380 V			Y 400 V			Y 415 V			Y 660 V			Y 690 V						
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	
1,1	84,0	84,7	83,4	84,4	84,5	82,5	84,3	84,0	81,4	84,0	84,0	81,4	84,0	84,0	81,4	84,0	84,0	81,4	3
1,5	84,6	85,8	85,4	85,5	86,3	85,2	85,9	86,2	84,8	84,6	85,8	84,8	84,6	85,8	84,8	84,6	85,8	84,8	
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	88,7	89,5	89,1	89,1	89,5	88,4	89,1	89,1	87,7	88,7	89,1	87,7	88,7	89,1	87,7	88,7	89,1	87,7	
4	88,6	89,0	87,6	88,6	89,0	87,6	88,6	89,0	87,6	88,7	89,6	89,1	88,6	89,2	88,3	88,9	89,0	87,6	
5,5	90,1	89,8	88,0	90,1	89,8	88,0	90,1	89,8	88,0	90,2	90,5	89,5	90,3	90,2	88,8	90,1	89,8	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	91,8	92,3	91,5	91,8	92,3	91,5	91,8	92,3	91,5	91,8	92,3	91,9	92,2	92,5	91,8	92,3	92,4	91,5	
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	

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

Nscf-IE3-mott18_2p50-en_b_te

NSCF, NSCC SERIES
THREE-PHASE MOTORS AT 50 Hz, 2 POLES (from 22 to 200 kW)

P _N kW	Manufacturer	IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage				
	OMEGA MOTOR SANAYI A.S. Dudullu Organize Sanayi Bölgesi 2. Cadde No: 10 34775 Ümraniye ISTANBUL/TURKEY Reg. No. 913733					cosφ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model									
22	3MAS 180M2 B3 22KW E3	180	B3	2	50	0,90	8,5	70,9	3,0	3,4
30	3MAS 200LA2 B3 30KW E3	200				0,88	7,8	96,5	2,6	3,1
37	3MAS 200LB2 B3 37KW E3	200				0,89	8,0	119	2,9	3,2
45	3MAS 225M2 B3 45KW E3	225				0,91	8,2	145	2,7	3,3
55	3MGS 250M2 B3 55KW E3	250				0,91	7,6	177	2,5	3,0
75	3MGS 280S2 B3 75KW E4	280				0,88	8,6	240	2,6	3,4
90	3MGS 280M2 B3 90KW E4	280				0,89	8,4	288	2,7	3,4
110	3MGS 315S2 B3 110KW E4	315				0,90	8,1	356	2,4	3,6
132	3MGS 315MA2 B3 132KW E4	315				0,91	8,5	422	2,2	3,7
160	3MGS 315MB2 B3 160KW E4	315				0,91	8,0	512	2,5	3,5
200	3MGS 315MD2 B3 200KW E4	315				0,92	7,4	640	2,3	3,3

P _N kW	Voltage U _N V					n _N min ⁻¹	Operating conditions **		
	Δ			Y			Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
	380 V	400 V	415 V	660 V	690 V				
	I _N (A)								
22	39,7	38,2	37,2	22,9	22,1	2955	≤ 1000	-20 / +50	No
30	54,9	52,7	50,4	31,7	30,2	2965			
37	67,6	64,0	61,8	39,0	36,7	2960			
45	79,8	75,9	72,6	46,0	44,5	2965			
55	97,3	92,5	88,3	56,2	54,2	2970			
75	135	129	124	77,9	74,5	2985			
90	160	152	146	91,9	87,9	2985			
110	195	185	179	112	107	2990			
132	230	218	210	132	127	2990			
160	276	262	253	159	152	2985			
200	342	324	313	182	188	2985			

P _N kW	Efficiency η _N %									IE
	Δ 380 V Y 660 V			Δ 400 V Y 690 V			Δ 415 V			
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	
22	92,4	92,9	92,6	92,7	93,2	93,0	92,8	93,2	93,1	3
30	93,1	93,3	93,2	93,3	93,5	93,4	93,5	93,7	93,6	
37	93,4	93,8	93,5	93,7	94,1	93,8	94,0	94,4	94,1	
45	93,8	94,0	93,4	94,0	94,2	93,6	94,2	94,4	93,8	
55	94,0	93,8	92,8	94,3	94,0	93,0	94,7	94,3	93,3	
75	95,6	95,7	95,0	95,6	95,7	95,0	95,6	95,7	95,0	
90	95,8	95,7	95,1	95,8	95,7	95,1	95,6	95,7	95,0	4
110	96,0	95,9	95,0	96,0	95,9	95,0	96,0	95,9	95,0	
132	96,2	96,1	95,6	96,2	96,1	95,6	96,2	96,1	95,6	
160	96,3	96,5	96,0	96,3	96,5	96,0	96,3	96,5	96,0	
200	96,5	96,7	96,3	96,5	96,7	96,3	96,5	96,7	96,3	

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

Nscf-mott200_2p50-en_d_te

NSCE, NSC2 SERIES THREE-PHASE MOTORS AT 50 Hz, 4 POLES

P _N kW	Manufacturer		IEC SIZE*	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage				
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						cosφ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model										
0,25	LLM471B5/302		71	SPECIAL	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				0,76	4,40	3,80	2,30	2,40
0,75	LLM490RB14S2/307		90R				0,80	6,38	5,00	2,73	3,13
1,1	PLM4902FHE/311 E3		90				0,71	6,22	7,28	2,75	3,44
	PLM490B5S2/311 E3		90								
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											n _N min ⁻¹	Operating conditions **		
	Δ			Y			Δ			Y			Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
	220 V	230 V	240 V	380 V	400 V	415 V	380 V	400 V	415 V	660 V	690 V				
	I _N (A)														
0,25	1,28	1,21	1,16	0,74	0,70	0,67	-	-	-	-	-	1390	≤ 1000	-15 / 40	No
0,37	1,82	1,73	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			
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 %																		IE
	Δ 220 V Y 380 V			Δ 230 V Y 400 V			Δ 240 V Y 415 V			Δ 380 V Y 660 V			Δ 400 V Y 690 V			Δ 415 V			
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	
0,25	70,6	72,5	70,8	70,9	71,5	69,0	71,8	71,5	67,1	-	-	-	-	-	-	-	-	-	2
0,37	75,9	76,0	72,0	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.

Nsce-IE3-mott_4p50-en_e_te

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

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

P _N kW	Manufacturer		IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage				
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						cosφ	I _s / I _N	T _N	T _s /T _N	T _m /T _N
	Model										
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	PLM4160B35/3110 E3		160				B35	4	50	0,81	7,19
15	PLM4160B35/3150 E3		160	0,77	8,23	97,2				2,97	3,99

P _N kW	Voltage U _N V											n _N min ⁻¹	Operating conditions **		
	Δ			Y			Δ			Y			Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
	220 V	230 V	240 V	380 V	400 V	415 V	380 V	400 V	415 V	660 V	690 V				
	I _N (A)														
0,55	2,42	2,60	2,25	1,40	1,35	1,30	-	-	-	-	-	1420	≤ 1000	-15 / 40 -15 / 50	No
0,75	2,90	2,85	2,85	1,70	1,65	1,65	1,70	1,65	1,65	0,98	0,95	1420 ÷ 1435			
1,1	4,61	4,59	4,62	2,66	2,65	2,67	2,64	2,63	2,65	1,53	1,52	1435 ÷ 1445			
1,5	6,34	6,41	6,41	3,66	3,70	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 %																	IE	
	Δ 220 V Y 380 V			Δ 230 V Y 400 V			Δ 240 V Y 415 V			Δ 380 V Y 660 V			Δ 400 V Y 690 V			Δ 415 V			
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4		2/4
0,55	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.

Nscs-IE3-mott15_4p50-en_d_te

NSCS SERIES

THREE-PHASE MOTORS AT 50 Hz, 4 POLES (from 18,5 to 90 kW)

P _N kW	Manufacturer		IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage				
	OMEGA MOTOR SANAYI A.S. Dudullu Organize Sanayi Bölgesi 2. Cadde No: 10 34775 Ümraniye İSTANBUL/TURKEY Reg. No. 913733						cosφ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model										
18,5	3MAS 180M4 B35 18.5kW E3		180	B35	4	50	0,81	7,10	119,6	2,80	3,10
22	3MAS 180L4 B35 22kW E3		180				0,81	7,20	142,8	2,60	3,20
30	3MAS 200L4 B35 30kW E3		200				0,87	7,50	194,3	2,60	3,10
37	3MAS 225S4 B35 37kW E3		225				0,86	7,50	238,2	2,60	3,10
45	3MAS 225M4 B35 45kW E3		225				0,85	7,60	289,5	2,70	3,10
55	3MGS 250M4 B35 55kW E3		250				0,86	7,50	353,5	2,80	3,00
75	3MGS 280S4 B35 75kW E4		280				0,84	8,50	481,0	3,20	3,20
90	3MGS 280M4 B35 90kW E4		280				0,86	8,10	577,0	2,50	3,00

P _N kW	Voltage U _N V					n _N min ⁻¹	Operating conditions **		
	Δ			Y			Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
	380 V	400 V	415 V	660 V	690 V				
	I _N (A)								
18,5	37,2	35,6	35,0	21,5	20,9	1475	≤ 1000	-20 / +50	No
22	44,0	42,2	41,0	25,4	24,1	1478			
30	55,8	53,2	51,0	32,2	30,8	1482			
37	68,9	66,1	63,8	39,8	38,3	1480			
45	85,1	81,1	78,3	49,1	46,5	1484			
55	102	97,6	94,6	58,8	56,6	1487			
75	141	134	129	81,3	77,7	1490			
90	165	157	151	95,2	91,0	1490			

P _N kW	Efficiency η _N %									IE
	Δ 380 V Y 660 V			Δ 400 V Y 690 V			Δ 415 V			
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	
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	
45	94,0	94,5	94,2	94,2	94,7	94,4	94,4	94,9	94,6	
55	94,5	94,9	94,7	94,6	95,0	94,8	94,7	95,1	94,9	
75	96,0	95,9	95,2	96,0	95,9	95,2	96,0	95,9	95,2	4
90	96,1	96,2	95,7	96,1	96,1	96,2	96,1	96,2	95,7	

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

Nscs-mott90-4p50-en_c_te

NSCF, NSCC SERIES

THREE-PHASE MOTORS AT 50 Hz, 4 POLES (from 0,25 to 15 kW)

P _N kW	Manufacturer		IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage				
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						cosφ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model										
0,75	LLM480B3/307		80	B3	4	50	0,80	6,38	5,00	2,73	3,31
1,1	PLM490B3/311 E3		90				0,71	6,22	7,28	2,75	3,44
1,5	PLM490B3/315 E3		90				0,68	6,92	9,89	3,29	4,01
2,2	PLM4100B3/322 E3		100				0,78	7,47	14,5	2,38	3,69
3	PLM4100B3/330 E3		100				0,74	7,75	19,7	2,48	4,21
4	PLM4112B3/340 E3		112				0,79	8,32	26,3	3,19	4,02
5,5	PLM4132B3/355 E3		132				0,76	7,64	35,9	2,85	3,65
7,5	PLM4132B3/375 E3		132				0,79	7,70	49,1	2,69	3,57
11	PLM4160B3/3110 E3		160				0,81	7,19	71,5	2,45	3,26
15	PLM4160B3/3150 E3		160				0,77	8,23	97,2	2,97	3,99

P _N kW	Voltage U _N V											η _N min ⁻¹	Operating conditions **		
	Δ			Y			Δ			Y			Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
	220 V	230 V	240 V	380 V	400 V	415 V	380 V	400 V	415 V	660 V	690 V				
	I _N (A)														
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	≤ 1000	-15 / 40	No
1,1	4,61	4,59	4,62	2,66	2,65	2,67	2,64	2,63	2,65	1,53	1,52	1435 ÷ 1445			
1,5	6,34	6,41	6,41	3,66	3,70	3,70	3,65	3,68	3,69	2,11	2,13	1440 ÷ 1450			
2,2	8,19	8,04	7,97	4,73	4,64	4,60	4,70	4,62	4,56	2,71	2,67	1445 ÷ 1455			
3	11,5	11,5	11,5	6,66	6,62	6,67	6,63	6,59	6,63	3,83	3,81	1450 ÷ 1460			
4	14,8	14,6	14,5	8,52	8,40	8,36	8,40	8,23	8,19	4,85	4,75	1445 ÷ 1455			
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 %																		IE
	Δ 220 V Y 380 V			Δ 230 V Y 400 V			Δ 240 V Y 415 V			Δ 380 V Y 660 V			Δ 400 V Y 690 V			Δ 415 V			
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	
0,75	83	84,3	83,5	83,4	84,1	82,6	83,8	84	81,9	83	84,3	83,5	83,4	84,1	82,6	83,8	84	81,9	3
1,1	84,9	85,7	84,7	85,3	85,5	83,8	85,3	85	82,7	84,9	85	82,7	84,9	85	82,7	84,9	85	82,7	
1,5	86,6	87	85,7	86,7	86,9	84,5	86,4	85,9	83,3	86,4	85,9	83,3	86,4	85,9	83,3	86,4	85,9	83,3	
2,2	87,6	88,6	88,3	88,2	88,8	87,9	88,5	88,7	87,4	87,6	88,6	87,4	87,6	88,6	87,4	87,6	88,6	87,4	
3	88,5	89,2	88,5	88,6	88,9	87,6	88,6	88,6	86,8	88,5	88,6	86,8	88,5	88,6	86,8	88,5	88,6	86,8	
4	88,6	89,1	87,9	88,6	89,1	87,9	88,6	89,1	87,9	88,6	89,2	88,9	88,6	89,2	88,4	88,8	89,1	87,9	
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.

NSCF, NSCC SERIES

THREE-PHASE MOTORS AT 50 Hz, 4 POLES (from 18,5 to 355 kW)

P _N kW	Manufacturer		IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage				
	OMEGA MOTOR SANAYI A.S. Dudullu Organize Sanayi Bölgesi 2. Cadde No: 10 34775 Ümraniye ISTANBUL/TURKEY Reg. No. 913733						cosφ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model										
18,5	3MAS 180M4 B3	18.5kW E3	180	B3	4	50	0,81	7,10	119,6	2,80	3,10
22	3MAS 180L4 B3	22kW E3	180				0,81	7,20	142,8	2,60	3,20
30	3MAS 200L4 B3	30kW E3	200				0,87	7,50	194,3	2,60	3,10
37	3MAS 225S4 B3	37kW E3	225				0,86	7,50	238,2	2,60	3,10
45	3MAS 225M4 B3	45kW E3	225				0,85	7,60	289,5	2,70	3,10
55	3MGS 250M4 B3	55kW E3	250				0,86	7,50	353,5	2,80	3,00
75	3MGS 280S4 B3	75kW E4	280				0,84	8,50	481,0	3,20	3,20
90	3MGS 280M4 B3	90kW E4	280				0,86	8,10	577,0	2,50	3,00
110	3MGS 315S4 B3	110kW E4	315				0,88	8,10	844,0	2,80	3,20
132	3MGS 315MA4 B3	132kW E4	315				0,85	9,30	1028	3,10	3,80
160	3MGS 315MB4 B3	160kW E4	315				0,85	9,30	1028	3,10	3,80
200	3MGS 315MD4 B3	200kW E4	315				0,88	8,30	1302	2,60	3,50
250	3MGS 315MK4 B3	250kW E4	315				0,86	7,80	1618	2,20	3,30
315	3MGS 355MB4 B3	315kW E4	355				0,85	8,30	2036	2,50	3,50
355	3MGS 355MC4 B3	355kW E4	355				0,87	7,70	2270	2,50	3,30

P _N kW	Voltage U _N V					n _N min ⁻¹	Operating conditions **		
	Δ			Y			Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
	380 V	400 V	415 V	660 V	690 V				
	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			
45	85,10	81,10	78,30	49,10	46,50	1484			
55	101,9	97,60	94,60	58,80	56,60	1487			
75	141,0	134,0	129,0	81,30	77,70	1490			
90	165,0	157,0	151,0	95,20	91,00	1490			
110	203,0	228,0	220,0	138,0	132,0	1490			
132	240,0	280,0	220,0	138,0	162,0	1490			
160	295,0	280,0	270,0	170,0	162,0	1490			
200	358,0	340,0	328,0	206,0	197,0	1490			
250	455,0	432,0	417,0	262,0	251,0	1490			
315	250,0	552,0	417,0	262,0	320,0	1490			
355	644,0	612,0	590,0	371,0	355,0	1490			

P _N kW	Efficiency η _N %									IE
	Δ 380 V Y 660 V			Δ 400 V Y 690 V			Δ 415 V			
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	
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	
45	94,0	94,5	94,2	94,2	94,7	94,4	94,4	94,9	94,6	
55	94,5	94,9	94,7	94,6	95,0	94,8	94,7	95,1	94,9	
75	96,0	95,9	95,2	96,0	95,9	95,2	96,0	95,9	95,2	
90	96,1	96,2	95,7	96,1	96,1	96,2	96,1	96,2	95,7	
110	96,3	96,4	96,0	96,4	96,6	96,3	96,3	96,4	96,0	
132	96,4	96,6	96,3	96,6	96,7	96,3	96,4	96,6	96,3	
160	96,6	96,7	96,3	96,6	96,7	96,3	96,6	96,7	96,3	
200	96,7	96,8	96,5	96,7	96,8	96,5	96,7	96,8	96,5	
250	96,7	96,9	96,6	96,7	96,9	96,6	96,7	96,9	96,6	
315	96,7	96,8	96,5	96,7	96,8	96,5	96,7	96,8	96,5	
355	96,7	96,9	96,9	96,7	96,9	96,9	96,7	96,9	96,9	

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

e-NSC SERIES

AVAILABLE VOLTAGES FOR SM AND PLM MOTORS

SINGLE-PHASE P _N kW	50 Hz	THREE-PHASE P _N kW	50/60 Hz		50 Hz						60 Hz								
1,1	s	0,37	s	o	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o
1,5	s	0,55	s	o	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o
		0,75	s	o	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o
		1,1	s	o	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o
		1,5	s	o	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o
		2,2	s	o	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o
		3	s	o	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o
		4	o	s	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o
		5,5	o	s	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o
		7,5	o	s	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o
		11	o	s	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o
		15	o	s	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o
		18,5	o	s	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o
		22	o	s	o	o	o	o	o	o	o	s	o	o	o	o	o	o	o

s = Standard voltage

o = Voltage upon request

nsc-volt-lowara-en_b_te

For higher power motors special voltages available on request.

Tolerances on nominal voltages

• 50 Hz:

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

• 60 Hz:

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

e-NSC 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.

MOTORS 2 POLES 50 Hz

POWER kW	MOTOR TYPE IEC SIZE	NOISE LpA dB
1,1	80	<70
	90R	<70
1,5	90R	<70
	90	<70
2,2	90	<70
3	90	<70
	100R	<70
	100	<70
4	112R	<70
	112	<70
5,5	112	<70
	132R	<70
	132	71
7,5	132	71
9,2	132	73
11	132	73
	160	71
15	160	71
18,5	160	73
	160	70
	180R	70
22	180	67
	200	71
30	200	71
37	200	71
45	225	73
55	250	75
75	280	77
90	280	78
110	315	78
132	315	79
160	315	79
200	315	80

MOTORS 4 POLES 50 Hz

POWER kW	MOTOR TYPE IEC SIZE	NOISE LpA dB
0,25	71	<70
0,37	71	<70
0,55	80	<70
	90R	<70
0,75	80	<70
	90R	<70
1,1	90	<70
1,5	90	<70
2,2	100	<70
3	100	<70
4	112	<70
5,5	132	<70
7,5	132	<70
11	160	<70
15	160	<70
18,5	180	<70
22	180	<70
30	200	<70
37	225	<70
45	225	<70
55	250	<70
75	280	<70
90	280	<70
110	315	72
132	315	73
160	315	73
200	315	73
250	315	74
315	355	74
355	355	75

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

Nscs-Nscf_mott-en_e_tr

e-NSC SERIES PUMPS (ErP 2009/125/EC)

With the **Regulation (EU) N. 547/2012**, the European Commission has established the requirements of ecodesign for some typologies of **pumps** used for pumping **clean water**, placed on the market and operated as stand-alone units or as parts of other products.

For end-suction close-coupled pumps (ESCC for the Regulation) and end-suction own-bearing pumps (ESOB for the Regulation) the requirements refers to:

- just the pump and not the pump and motor assembly (electric or combustion);
- pumps with:
 - just one impeller;
 - a nominal pressure PN not higher than 16 bar (1600 kPa);
 - a minimum nominal flow not less than 6 m³/h;
 - a maximum nominal power at the shaft not higher than 150 kW;
 - a speed of 2900 min⁻¹ (for electric pumps this means 50 Hz 2-pole electric motors) and with a head not greater than 140 metres;
 - a speed of 1450 min⁻¹ (for electric pumps this means 50 Hz 4-pole electric motors) and with a head not greater than 90 metres;
- use with clean water at a temperature ranging from -10°C to 120°C (the test is performed with cold water at a temperature not higher than 40°C).

This regulation states that water pumps shall have 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)
1 st January 2015	MEI ≥ 0,4

According to the definitions established in the Regulation NSCE and NSCS versions correspond to the "end-suction close-coupled pump" (ESCC); while NSC, NSCF and NSCC versions correspond to the "end-suction own bearing pump" (ESOB).

NSC2 models (with 2 impellers) are out of the scope of the Regulation.

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 η_p and \emptyset 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 "ESCC 1450 rpm", "ESCC 2900 rpm", "ESOB 1450 rpm", "ESOB 2900 rpm".

e-NSC SERIES
MINIMUM EFFICIENCY INDEX (MEI)

PUMP SIZE (1)	2-POLE	
	NSC, NSCE NSCF, NSCC	NSCS
32-125	≥ 0,40	≥ 0,40
32-160	≥ 0,40	≥ 0,40
32-200	≥ 0,40	≥ 0,40
NSC2 32-250	---	---
32-250	≥ 0,40	≥ 0,40
40-125	≥ 0,40	≥ 0,40
40-160	≥ 0,40	≥ 0,40
40-200	≥ 0,40	≥ 0,40
40-250	≥ 0,40	≥ 0,40
50-125	≥ 0,40	≥ 0,40
50-160	≥ 0,40	≥ 0,40
50-200	≥ 0,40	≥ 0,40
50-250	≥ 0,40	≥ 0,40
50-315	≥ 0,40	≥ 0,40
65-125	≥ 0,40	≥ 0,40
65-160	≥ 0,40	≥ 0,40
65-200	≥ 0,40	≥ 0,40
65-250	≥ 0,40	≥ 0,40
65-315	≥ 0,40	≥ 0,40
80-160	≥ 0,40	≥ 0,40
80-200	≥ 0,40	≥ 0,40
80-250	≥ 0,40	≥ 0,40
80-316	≥ 0,40	≥ 0,40
100-160	≥ 0,70	≥ 0,70
100-200	0,69	≥ 0,70
100-250	≥ 0,70	≥ 0,70
100-316	0,43	---
125-200	≥ 0,70	≥ 0,70
125-315	---	---

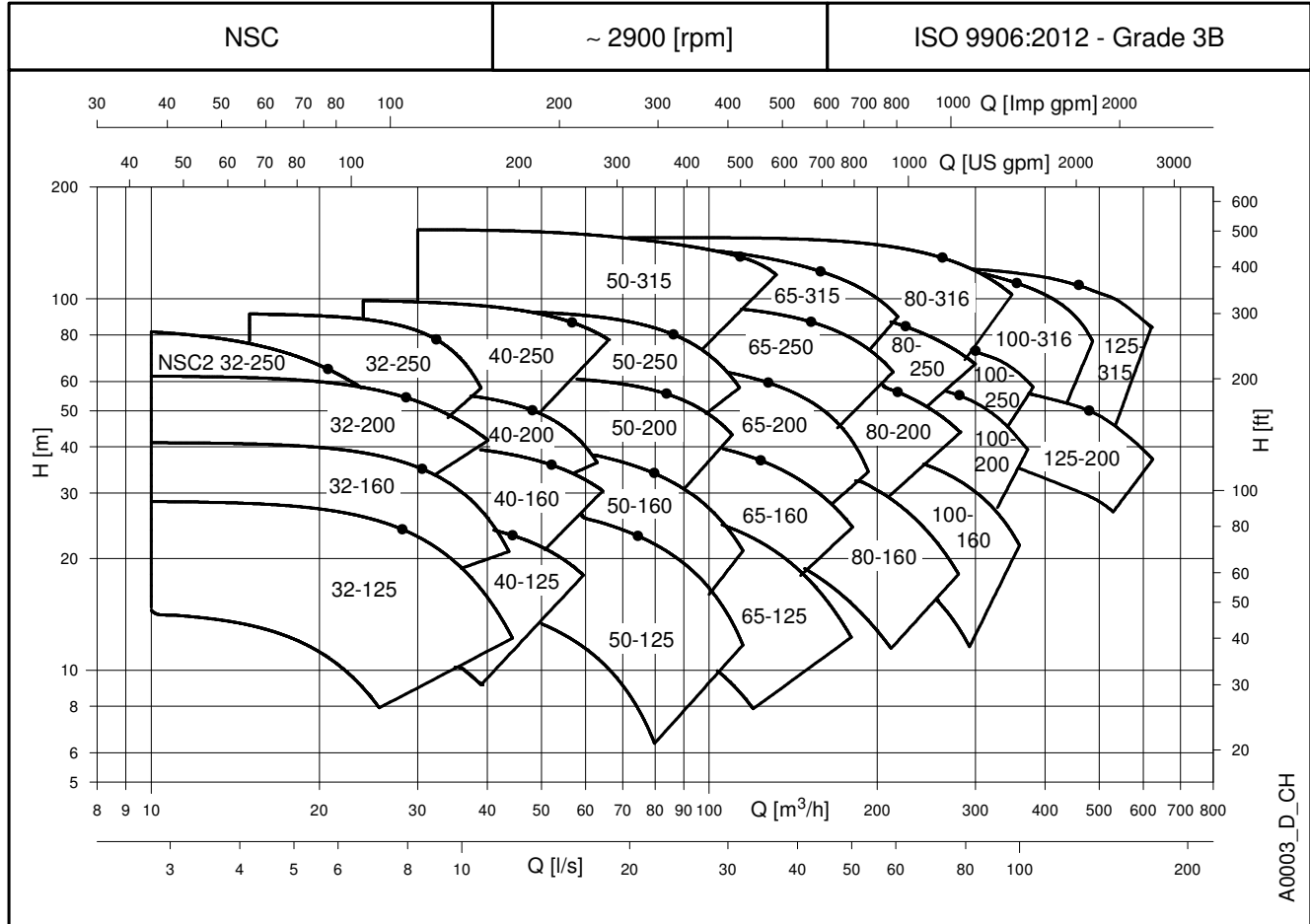
(1) MEI referred to full impeller diameter

PUMP SIZE (1)	4-POLE	
	NSC, NSCE NSCF, NSCC	NSCS
32-125	≥ 0,40	≥ 0,40
32-160	≥ 0,40	≥ 0,40
32-200	≥ 0,40	≥ 0,40
NSC2 32-250	---	---
32-250	≥ 0,40	≥ 0,40
40-125	≥ 0,40	≥ 0,40
40-160	≥ 0,40	≥ 0,40
40-200	≥ 0,40	≥ 0,40
40-250	≥ 0,40	≥ 0,40
50-125	≥ 0,40	≥ 0,40
50-160	≥ 0,40	≥ 0,40
50-200	≥ 0,40	≥ 0,40
50-250	≥ 0,40	≥ 0,40
50-315	≥ 0,40	≥ 0,40
65-125	≥ 0,40	≥ 0,40
65-160	≥ 0,40	≥ 0,40
65-200	≥ 0,40	≥ 0,40
65-250	≥ 0,40	≥ 0,40
65-315	≥ 0,40	≥ 0,40
80-160	≥ 0,40	≥ 0,40
80-200	≥ 0,40	≥ 0,40
80-250	≥ 0,40	≥ 0,40
80-316	≥ 0,40	≥ 0,40
80-400	≥ 0,40	≥ 0,40
100-160	≥ 0,70	≥ 0,70
100-200	0,64	0,69
100-250	≥ 0,70	≥ 0,70
100-315	0,64	0,69
100-400	0,50	0,55
125-200	0,66	≥ 0,70
125-250	≥ 0,70	≥ 0,70
125-315	≥ 0,70	≥ 0,70
125-400	0,66	≥ 0,70
150-200	0,69	≥ 0,70
150-250	0,64	0,68
150-315	0,53	0,58
150-400	≥ 0,70	≥ 0,70
150-500	---	---
200-250	0,65	0,70
200-315	0,51	0,56
200-400	0,50	---
200-500	---	---
250-315	0,62	0,66
250-400	---	---
250-500	---	---
300-350	≥ 0,70	---
300-400	---	---
300-450	---	---

Nsc-MEI-en_c_sc

e-NSC SERIES

HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 2 POLES



e-NSC 65, 80 SERIES

HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES

PUMP TYPE	P _N kW	Ø Impeller (mm)				Q = DELIVERY												
		STD (1)	B (2)	Ø (3)	η _p % (3)	l/s	6	11,8	17,1	22,4	27,8	33,1	38,4	43,7	49,0	54,4	59,7	65
						m ³ /h	0	23	42	62	81	100	119	138	157	177	196	215
H = TOTAL HEAD METRES COLUMN OF WATER																		
65-125/40	4	113	112	○	77,9	14,4		14,5	13,7	12,2	10,3	8,0						
65-125/55	5,5	127	125,5	○	79,7	19,5		19,4	18,4	16,7	14,5	11,7						
65-125/75	7,5	137	136	○	80,3	23,8		23,9	23,2	21,7	19,6	16,8	13,7	10,5				
65-125/92	9,2	146	143	○	81,4	28,3		28,1	27,4	26,2	24,4	22,1	19,2	16,1				
65-125/110A	11	146	143	○	81,4	28,3		28,1	27,4	26,2	24,4	22,1	19,2	16,1				
65-125/110	11	148	146	●	81,9	29,5		29,1	28,3	27,2	25,6	23,6	21,0	18,0	14,5			
65-160/75	7,5	145	144	○	79,1	27,0		26,5	25,3	23,2	20,2	16,6						
65-160/92	9,2	151	152	○	80,9	29,8		29,4	28,5	26,7	23,9	20,4	16,4					
65-160/110A	11	151	152	○	80,9	29,8		29,4	28,5	26,7	23,9	20,4	16,4					
65-160/110	11	162	160	○	81,4	33,3		33,0	32,1	30,5	27,9	24,6	20,5					
65-160/150	15	176	176	○	82,4	41,3		41,1	40,4	39,2	37,1	34,3	30,7	26,5				
65-160/185	18,5	180	180	●	83,4	44,7		44,3	43,7	42,5	40,7	38,2	35,1	31,3	26,8			
65-200/110	11	165	162	○	73,0	36,4		35,6	33,8	30,6	25,8	19,5						
65-200/150	15	177	177	○	77,4	43,1		42,8	41,6	39,1	35,2	29,7	22,8					
65-200/185	18,5	189	189	○	78,5	49,9		49,4	48,3	46,1	42,7	37,8	31,4					
65-200/220	22	199	199	○	79,2	55,9		55,6	54,6	52,7	49,6	45,0	38,9	31,0				
65-200/300	30	220	218	●	80,1	70,2		69,6	68,7	67,3	65,0	61,7	57,2	51,1	43,1			
65-250/220	22	195	192	○	76,0	51,0		53,7	52,4	50,0	46,7	42,3	36,6	29,1				
65-250/300	30	215	213	○	76,8	63,7		66,6	65,5	63,4	60,5	56,6	51,6	45,0	36,4			
65-250/370	37	229	226	○	79,1	73,3		77,2	76,4	74,6	72,0	68,7	64,5	59,1	52,0	42,5		
65-250/450	45	243	240	○	79,4	83,7		87,8	87,1	85,5	83,3	80,6	77,0	72,4	66,3	57,9	46,3	
65-250/550	55	258	255	●	80,3	98,5		99,7	99,1	97,9	95,9	93,3	89,8	85,2	79,4	72,0	62,8	51,4
65-315/550	55	272	272	○	68,0	103,6	103,8	103,3	101,6	98,7	94,7	89,6	83,4	75,7	66,0			
65-315/750	75	298	298	○	68,9	126,1		125,7	124,5	122,0	118,4	113,7	108,1	101,5	93,6	83,7		
65-315/900	90	315	315	●	69,2	142,4		141,7	140,8	138,7	135,4	130,9	125,4	119,0	111,5	102,7	91,7	

PUMP TYPE	P _N kW	Ø Impeller (mm)				Q = DELIVERY												
		STD (1)	B (2)	Ø (3)	η _p % (3)	l/s	11	18,4	26,2	34,1	41,9	49,8	57,7	65,5	73,4	81,2	89,1	97
						m ³ /h	0	38	66	94	123	151	179	208	236	264	292	321
H = TOTAL HEAD METRES COLUMN OF WATER																		
80-160/110	11	144	144	○	76,0	26,8		25,7	23,8	21,4	18,5	15,3	12,0					
80-160/150	15	158	158	○	79,5	33,4		32,4	31,1	29,0	26,3	22,9	19,1	15,1				
80-160/185	18,5	168	168	○	80,3	38,0		37,2	36,0	34,0	31,2	27,8	23,8	19,6				
80-160/220	22	177	177	●	80,8	42,3		41,6	40,5	38,8	36,4	33,3	29,5	25,3	20,7			
80-200/220	22	181	177	○	79,7	43,5		43,7	42,8	40,9	38,0	34,2	29,7					
80-200/300	30	195	192	○	81,8	52,1		52,1	51,6	50,2	47,8	44,3	40,0	34,9				
80-200/370	37	208	204	○	82,6	60,5		60,2	59,5	58,0	55,8	52,7	48,7	43,8				
80-200/450	45	219	216	●	83,3	67,8		67,7	67,1	66,0	64,1	61,3	57,7	53,1	47,6			
80-250/370	37	214	211	○	80,6	65,0		65,8	64,4	62,0	58,8	54,6	49,5					
80-250/450	45	227	224	○	81,8	73,9		75,1	74,3	72,4	69,4	65,2	60,1	54,2				
80-250/550	55	241	238	○	82,3	83,5		85,1	84,3	82,6	79,9	76,0	71,2	65,5	59,0			
80-250/750	75	259	256	●	83,6	98,8		98,1	96,9	94,9	91,8	87,6	82,2	75,9	68,6			
80-316/900	90	280	280	○	76,3	110,7	110,2	110,0	109,9	109,0	106,7	102,7	97,1	90,3	82,8	74,1		
80-316/1100	110	298	298	○	76,7	125,2		124,5	124,3	123,8	122,5	119,9	115,6	109,8	102,5	94,0	84,5	
80-316/1320	132	310	310	○	77,7	135,1		134,7	134,6	134,1	132,9	130,8	127,4	122,7	116,5	108,7	99,5	
80-316/1600	160	321	321	●	77,9	146,1		145,4	145,3	144,9	143,8	141,8	138,6	134,2	128,5	121,3	112,7	102,7

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

Nsc-65-80_2p50-en_g_th

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

e-NSC 100, 125 SERIES

HYDRAULIC PERFORMANCE TABLE AT 50 Hz, 2 POLES

PUMP TYPE	P _N kW	Ø Impeller (mm)				Q = DELIVERY												
		STD	B	Ø	η _p %	l/s	11	22,5	33,8	45,1	56,3	67,6	78,9	90,2	101,4	112,7	124	135
						m ³ /h	0	40	81	122	162	203	243	284	325	365	406	446
H = TOTAL HEAD METRES COLUMN OF WATER																		
100-160/150	15	144	144	○	76,7	24,7	24,8	24,6	23,8	22,3	19,9	16,6	12,6					
100-160/185	18,5	156	156	○	79,7	29,1		28,7	28,2	26,9	24,6	21,3	17,1					
100-160/220	22	167	167	○	80,5	34,1		33,4	32,8	31,5	29,3	26,0	21,7	16,7				
100-160/300	30	187	187	●	83,8	44,1		42,7	41,9	40,6	38,7	35,9	32,1	27,1				
100-200/300	30	188	188	○	79,7	46,5		45,7	44,8	42,7	39,2	34,3	28,1	21,0				
100-200/370	37	202	202	○	82,0	53,9		53,4	52,8	51,2	48,2	43,8	38,0	31,0				
100-200/450	45	213	213	○	83,4	60,4		59,8	59,5	58,3	55,7	51,8	46,4	39,7	31,8			
100-200/550	55	227	227	●	84,6	69,2		68,9	68,2	66,9	64,7	61,3	56,6	50,6	43,0			
100-250/450	45	213	213	○	80,4	58,7		58,3	58,0	56,9	54,4	50,3	44,8	38,5	31,5			
100-250/550	55	227	227	○	83,1	67,8		67,7	67,4	66,2	64,0	60,5	55,7	49,6	42,4			
100-250/750	75	249	249	○	84,3	82,8		82,7	82,5	81,8	80,0	76,9	72,4	66,7	60,2	52,9		
100-250/900	90	259	259	●	85,0	90,1		90,1	89,8	88,8	87,0	84,0	79,8	74,4	67,6	59,6		
100-316/1100	110	270	270	○	78,6	104,7		104,3	103,5	101,9	99,3	95,6	90,5	83,7	74,6	62,4		
100-316/1320	132	286	286	○	79,9	116,6		116,2	115,7	114,2	111,8	108,5	104,2	98,6	91,4	81,5	67,3	
100-316/1600	160	302	302	●	80,8	131,3		130,9	130,8	129,9	128,0	124,8	120,4	115,0	108,8	101,5	91,8	77,0

PUMP TYPE	P _N kW	Ø Impeller (mm)				Q = DELIVERY												
		STD	B	Ø	η _p %	l/s	24	37,6	51,6	65,6	79,6	93,6	107,7	121,7	135,7	149,7	163,8	178
						m ³ /h	0	85	135	186	236	287	337	388	438	489	539	590
H = TOTAL HEAD METRES COLUMN OF WATER																		
125-200/450	45	179	179	○	80,4	34,9	34,5	34,5	34,4	34,2	33,8	33,1	31,7	29,6	26,6	22,3		
125-200/550	55	195	195	○	83,1	43,1		43,0	43,0	42,7	42,1	40,9	39,0	36,2	32,6	28,4		
125-200/750	75	215	215	○	84,4	55,1		54,9	54,9	54,7	54,2	53,2	51,6	49,3	46,1	42,0	37,1	
125-200/900	90	225	225	●	85,7	61,8		61,6	61,5	61,2	60,7	59,8	58,3	56,1	53,0	49,1	44,5	39,3
125-315/1100	110	250	250	○	81,4	84,0		83,8	83,2	81,6	78,7	74,3	68,2	60,4	51,0			
125-315/1320	132	265	265	○	81,1	96,8		96,7	96,2	95,0	92,6	89,0	83,9	77,1	68,4			
125-315/1600	160	280	280	○	81,9	109,8		109,8	109,5	108,6	106,9	104,0	99,7	93,8	86,1	76,4		
125-315/2000	200	290	290	●	82,9	118,9		119,0	118,8	118,1	116,7	114,3	110,6	105,4	98,3	89,3	78,3	

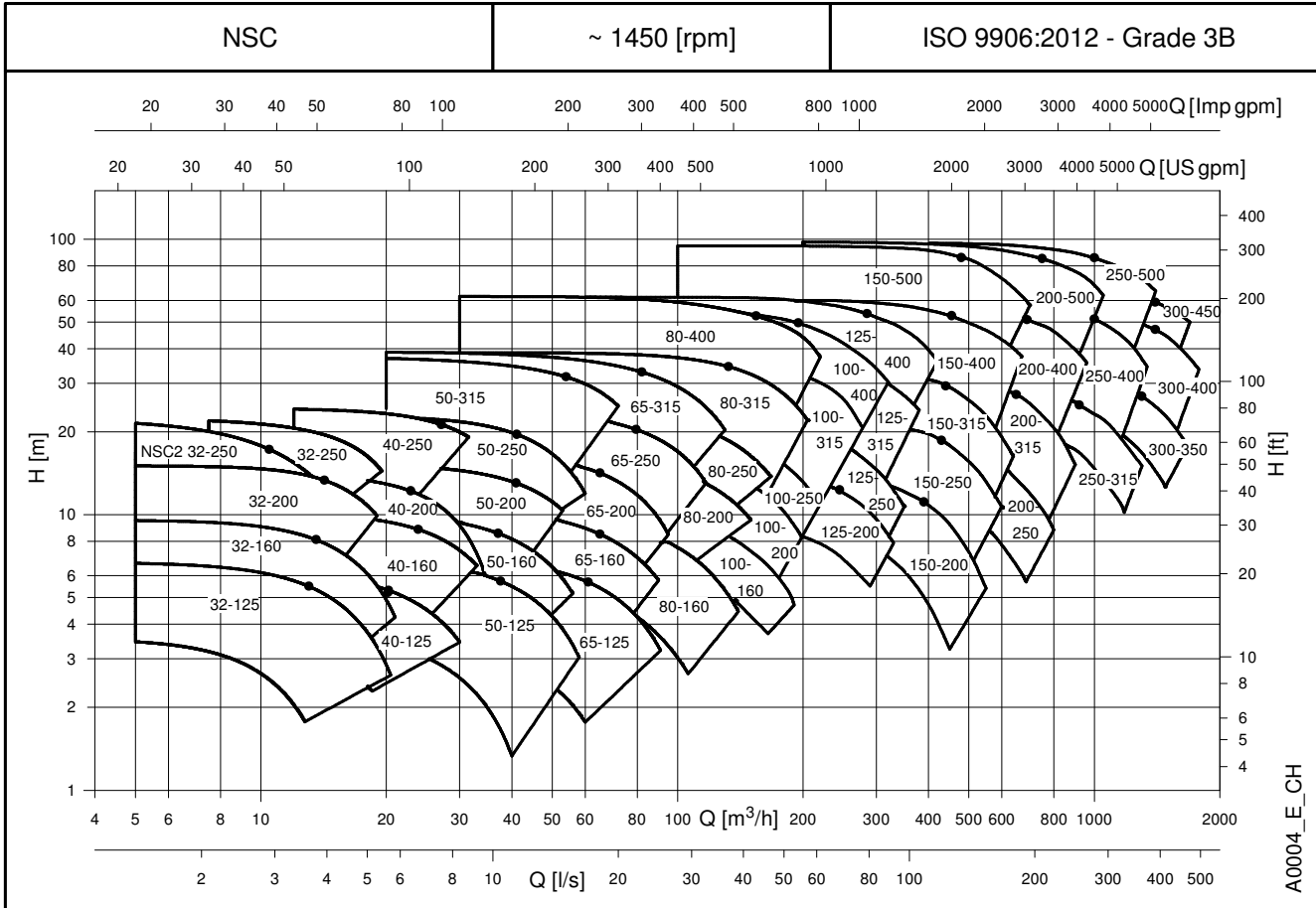
Hydraulic performances in compliance with ISO 9906:2012 - Grade 3B (ex ISO 9906:1999 - Annex A)

Nsc-100-125_2p50-en_e_th

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

e-NSC SERIES

HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES



e-NSC 65, 80 SERIES HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES

PUMP TYPE	P _N kW	Ø Impeller (mm)				Q = DELIVERY													
		STD (1)	□ (2)	Ø (3)	η _p % (3)	l/s	0	3,3	6,3	9,3	12,2	15,2	18,2	21,2	24,2	27,2	30,1	33,1	36,1
						m ³ /h	0	12	23	33	44	55	66	76	87	98	109	119	130
H = TOTAL HEAD METRES COLUMN OF WATER																			
65-125/05	0,55	113	112	○	75,0	3,5		3,4	3,1	2,7	2,1								
65-125/07	0,75	127	126	○	77,0	4,9		4,7	4,4	3,9	3,2	2,4							
65-125/11	1,1	137	136	○	78,3	5,8		5,8	5,6	5,1	4,5	3,6	2,7						
65-125/15	1,5	148	146	●	79,5	7,2		7,1	6,9	6,5	6,0	5,4	4,6	3,6					
65-160/11A	1,1	145	144	○	77,1	6,4		6,4	6,0	5,4	4,4	3,4							
65-160/15B	1,5	145	144	○	77,1	6,4		6,4	6,0	5,4	4,4	3,4							
65-160/11	1,1	151	152	○	78,0	7,2		7,0	6,7	6,1	5,2	4,1							
65-160/15A	1,5	151	152	○	78,0	7,2		7,0	6,7	6,1	5,2	4,1							
65-160/15	1,5	162	160	○	79,6	8,2		8,0	7,7	7,1	6,3	5,3							
65-160/22A	2,2	176	176	○	81,8	10,2		10,1	9,9	9,4	8,8	7,9	6,8	5,6					
65-160/22	2,2	180	180	●	82,1	10,9		10,8	10,5	10,0	9,3	8,4	7,4	6,1					
65-200/15	1,5	165	162	○	73,1	8,9	8,9	8,7	8,2	7,2	5,7								
65-200/22A	2,2	177	177	○	74,6	10,6		10,5	10,0	9,2	7,8	6,0							
65-200/22	2,2	189	189	○	76,9	12,1		12,0	11,6	10,8	9,6	7,9	5,7						
65-200/30	3	199	199	○	78,0	13,6		13,6	13,2	12,6	11,5	9,9	7,8						
65-200/40	4	220	218	●	80,0	17,0		16,9	16,7	16,1	15,3	14,1	12,5	10,3					
65-250/30	3	195	192	○	73,9	12,6		13,2	12,8	12,0	10,8	9,3	7,3						
65-250/40	4	215	213	○	74,3	15,7		16,2	15,8	15,1	14,1	12,7	11,0	8,9					
65-250/55A	5,5	229	226	○	76,0	18,1		19,0	18,7	18,1	17,3	16,1	14,6	12,8	10,5				
65-250/55	5,5	243	240	○	77,2	20,7		21,3	21,2	20,7	20,0	18,9	17,5	15,8	13,7				
65-250/75	7,5	258	255	●	77,6	24,3		24,6	24,3	23,8	23,0	22,0	20,8	19,2	17,4	15,2			
65-315/55	5,5	260	260	○	68,1	22,7		22,4	21,7	20,8	19,6	18,0	15,7	12,7					
65-315/75	7,5	285	285	○	70,4	27,6		27,3	26,8	26,0	24,8	23,3	21,4	18,9	15,9				
65-315/110	11	315	315	○	71,4	34,7		34,5	34,0	33,3	32,3	31,0	29,3	27,2	24,6	21,4	17,3		
65-315/150	15	334	334	●	72,2	39,0		38,9	38,5	37,8	36,8	35,5	33,9	32,0	29,7	27,0	23,8	20,3	

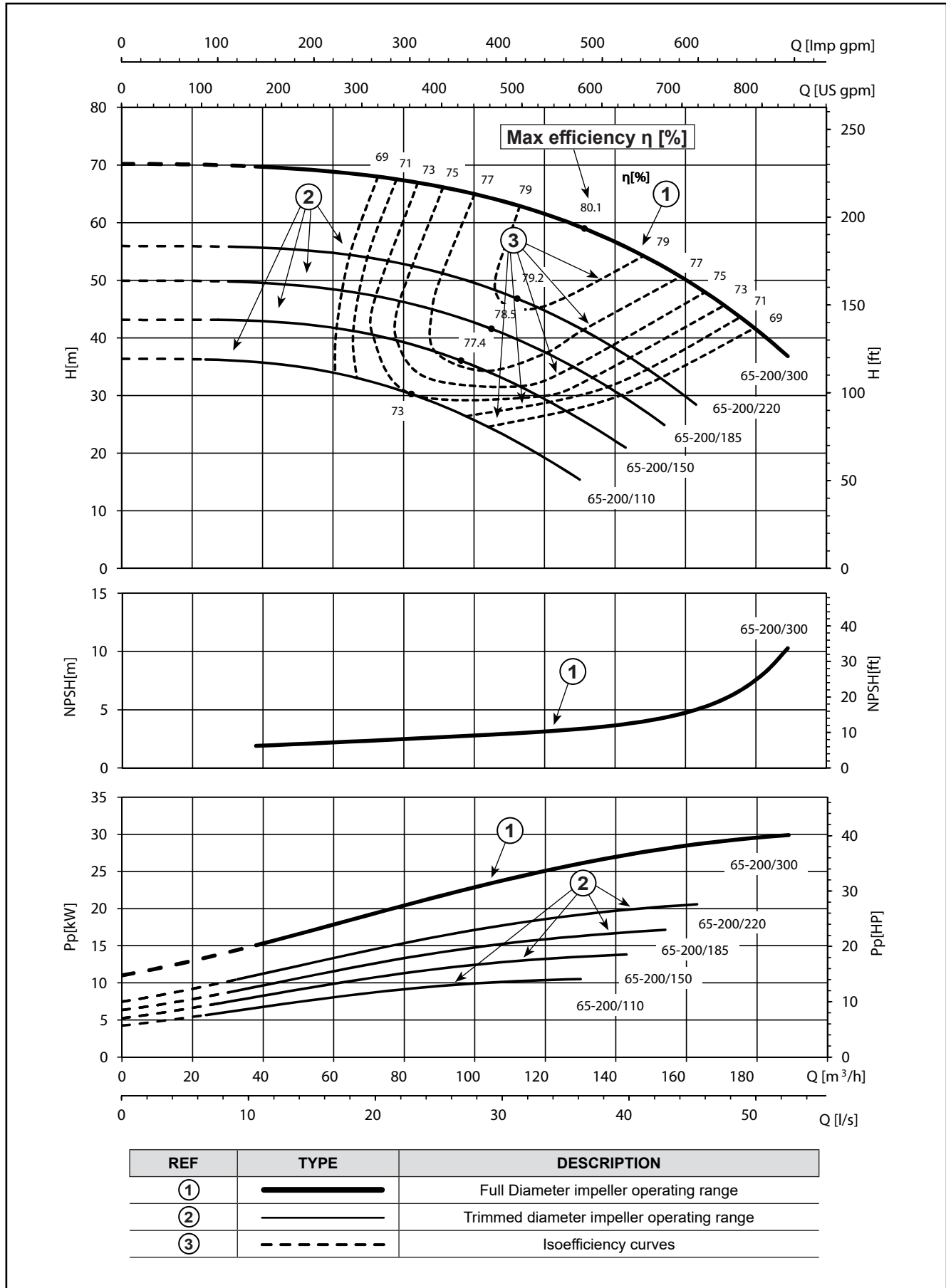
PUMP TYPE	P _N kW	Ø Impeller (mm)				Q = DELIVERY													
		STD (1)	□ (2)	Ø (3)	η _p % (3)	l/s	0	5,6	10,7	15,7	20,8	25,8	30,9	35,9	40,9	46,0	51,0	56,1	61,1
						m ³ /h	0	20	38	57	75	93	111	129	147	166	184	202	220
H = TOTAL HEAD METRES COLUMN OF WATER																			
80-160/15	1,5	144	144	○	72,1	6,5		6,2	5,5	4,5	3,5								
80-160/22A	2,2	158	158	○	78,4	8,3		7,9	7,3	6,5	5,4	4,2							
80-160/22	2,2	168	168	○	79,0	9,3		9,0	8,5	7,6	6,5	5,2	3,8						
80-160/30	3	177	177	●	81,2	10,5		10,2	9,8	9,0	8,0	6,7	5,3						
80-200/30	3	181	177	○	77,1	10,8		10,6	10,1	9,3	8,2								
80-200/40	4	195	192	○	79,7	12,8		12,7	12,4	11,6	10,4	8,9							
80-200/55A	5,5	208	204	○	82,0	15,0		14,9	14,5	13,9	12,8	11,3							
80-200/55	5,5	219	216	●	82,5	16,9		16,5	16,2	15,6	14,7	13,5	11,8						
80-250/55A	5,5	214	211	○	80,0	16,4		16,0	15,4	14,4	13,1	11,3	9,1	6,5					
80-250/55	5,5	227	224	○	80,1	18,2		18,2	17,6	16,6	15,3	13,5							
80-250/75	7,5	241	238	○	80,8	21,0		20,7	20,2	19,4	18,1	16,4	14,4						
80-250/110	11	259	256	●	82,2	24,1		23,9	23,7	23,2	22,2	20,8	19,0	16,7					
80-315/110A	11	262	262	○	75,8	23,1		23,1	22,7	21,9	20,4	18,4	15,8	12,8	9,6				
80-315/110	11	280	280	○	76,0	26,6		26,6	26,4	25,7	24,5	22,8	20,4	17,5					
80-315/150	15	304	304	○	76,9	31,6		31,7	31,6	31,2	30,3	28,9	26,8	24,3	21,2				
80-315/185	18,5	321	321	○	77,2	35,5		35,6	35,5	35,2	34,4	33,2	31,4	29,1	26,2	22,7			
80-315/220	22	334	334	●	77,8	38,6		38,7	38,6	38,3	37,6	36,4	34,8	32,7	30,0	26,7			
80-400/185	18,5	338	338	○	69,9	39,1		39,0	38,2	37,0	35,3	33,3	30,6	27,0	22,0	15,0	5,1		
80-400/220	22	356	356	○	71,3	43,8	44,0	43,8	43,2	42,0	40,4	38,4	36,1	33,1	29,1				
80-400/300	30	388	388	○	72,5	53,1		52,8	52,6	51,7	50,2	48,3	46,1	43,7	40,8				
80-400/370	37	418	418	●	73,8	62,6		61,9	61,7	61,0	59,7	57,9	55,9	53,5	50,9	47,8			

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

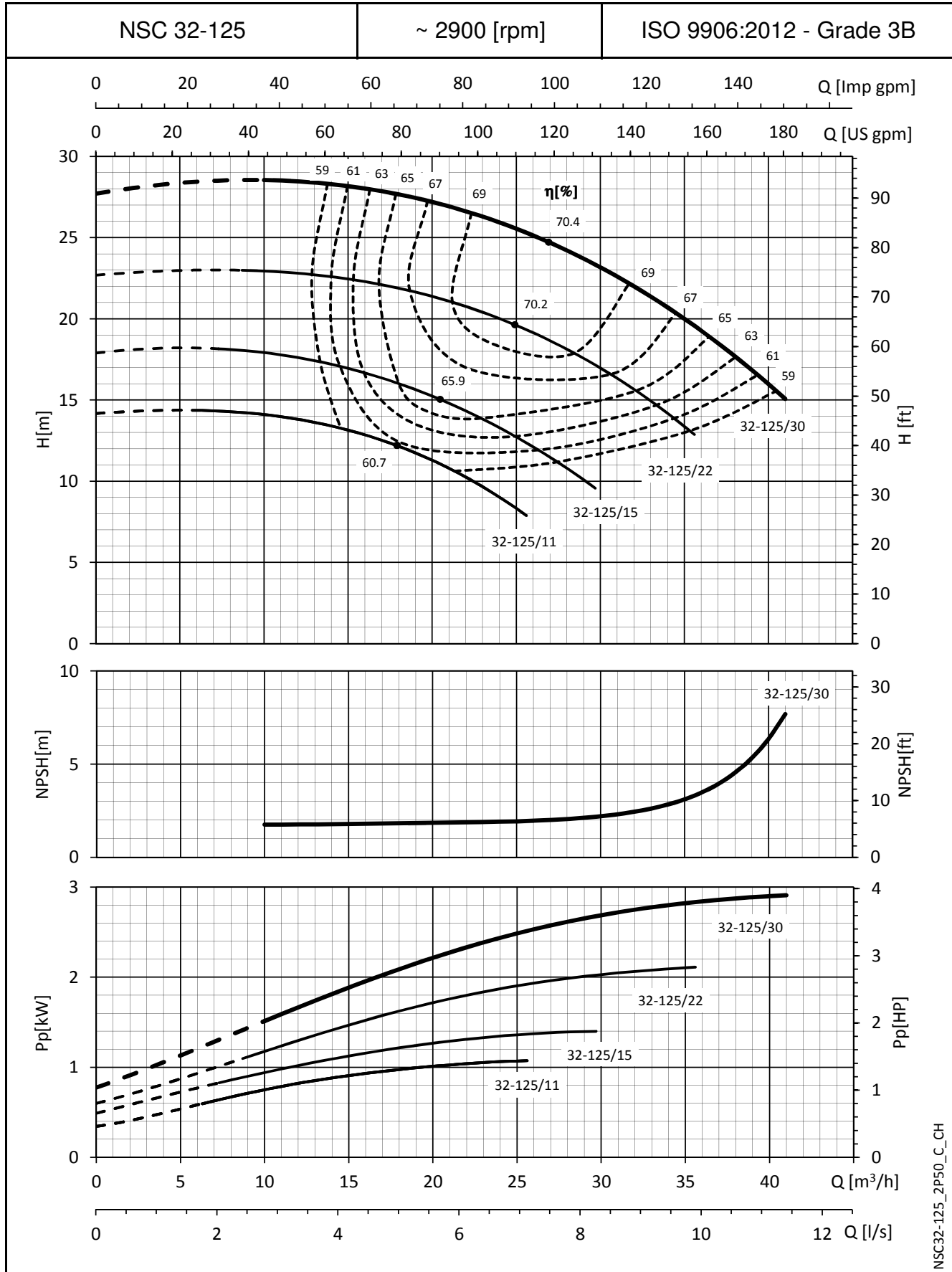
Nsc-65-80_4p50-en_f_th

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

e-NSC SERIES IDENTIFICATION OF GRAPH



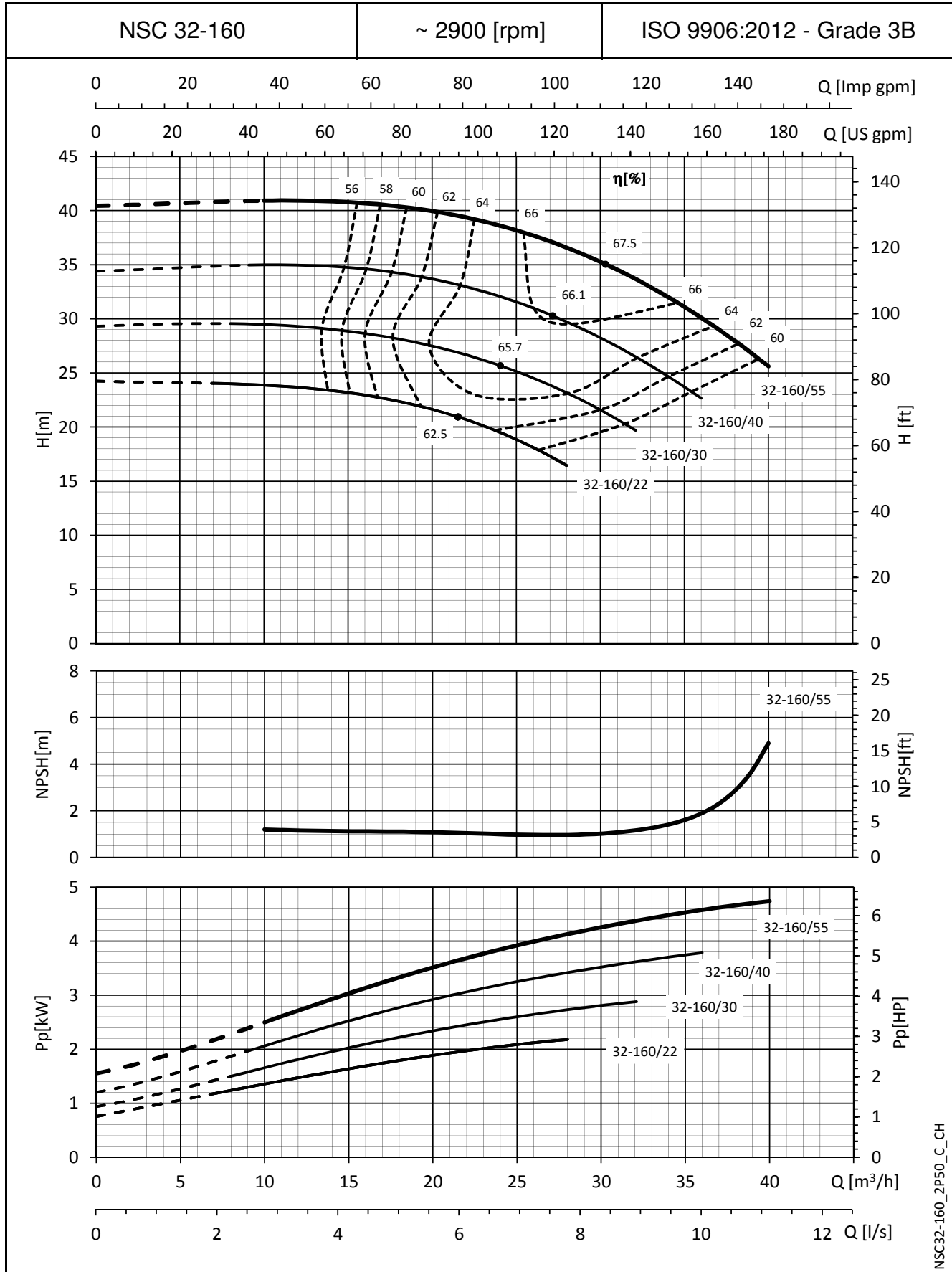
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



NSC32-125_2P50_C_CH

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

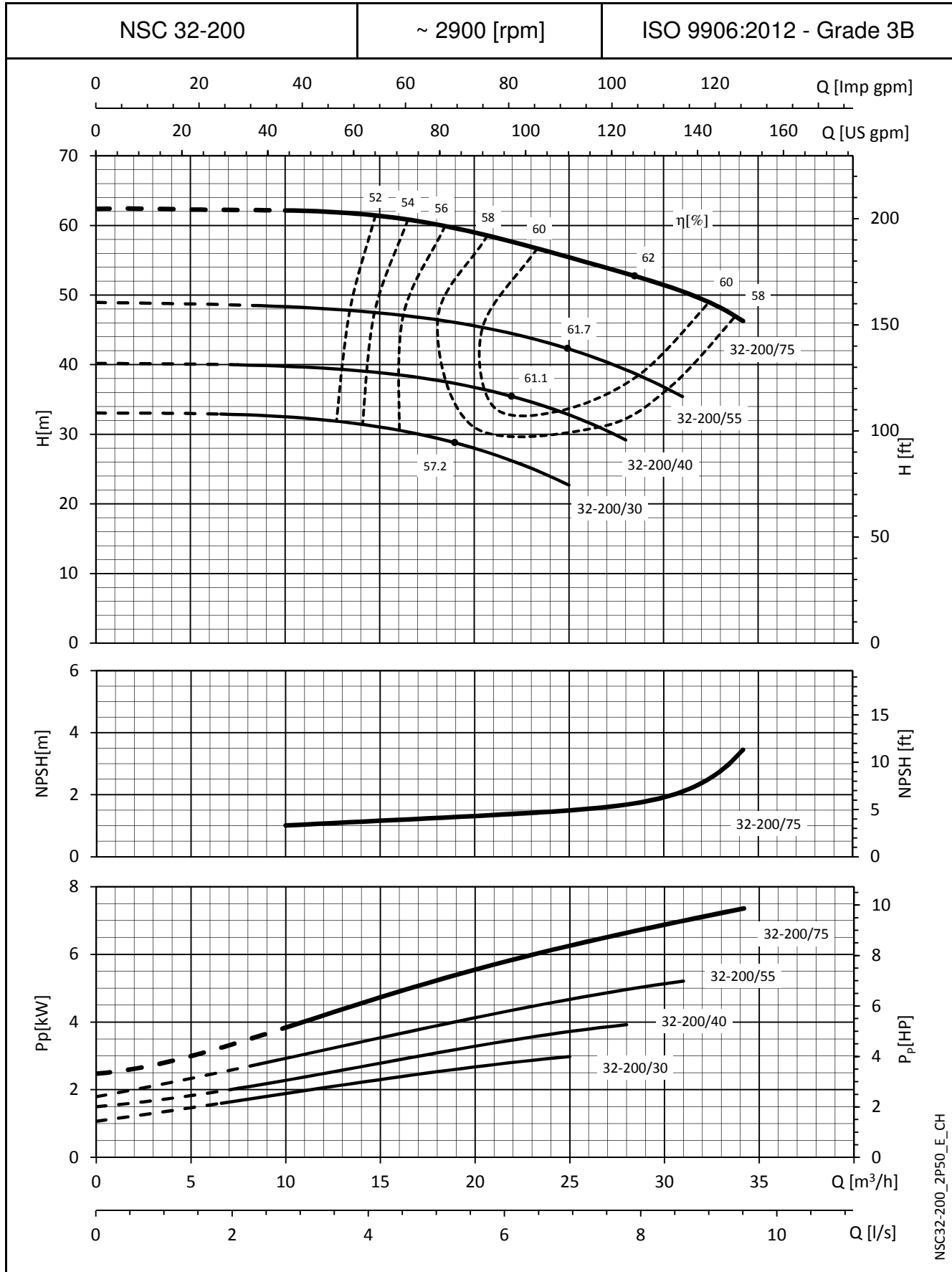
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



NSC32-160_2P50_C_CH

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

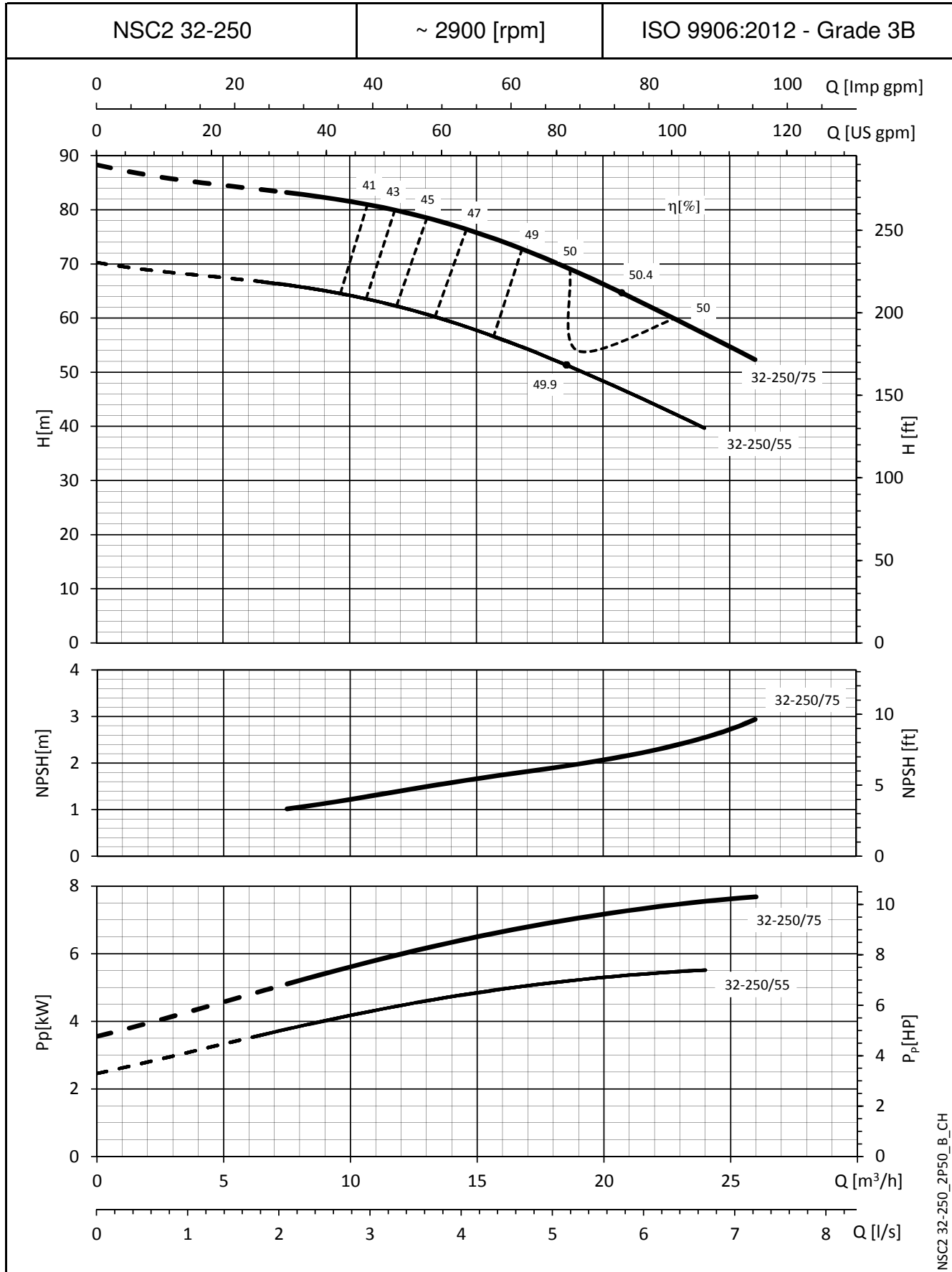
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



NSC32-200_2P50_E_CH

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

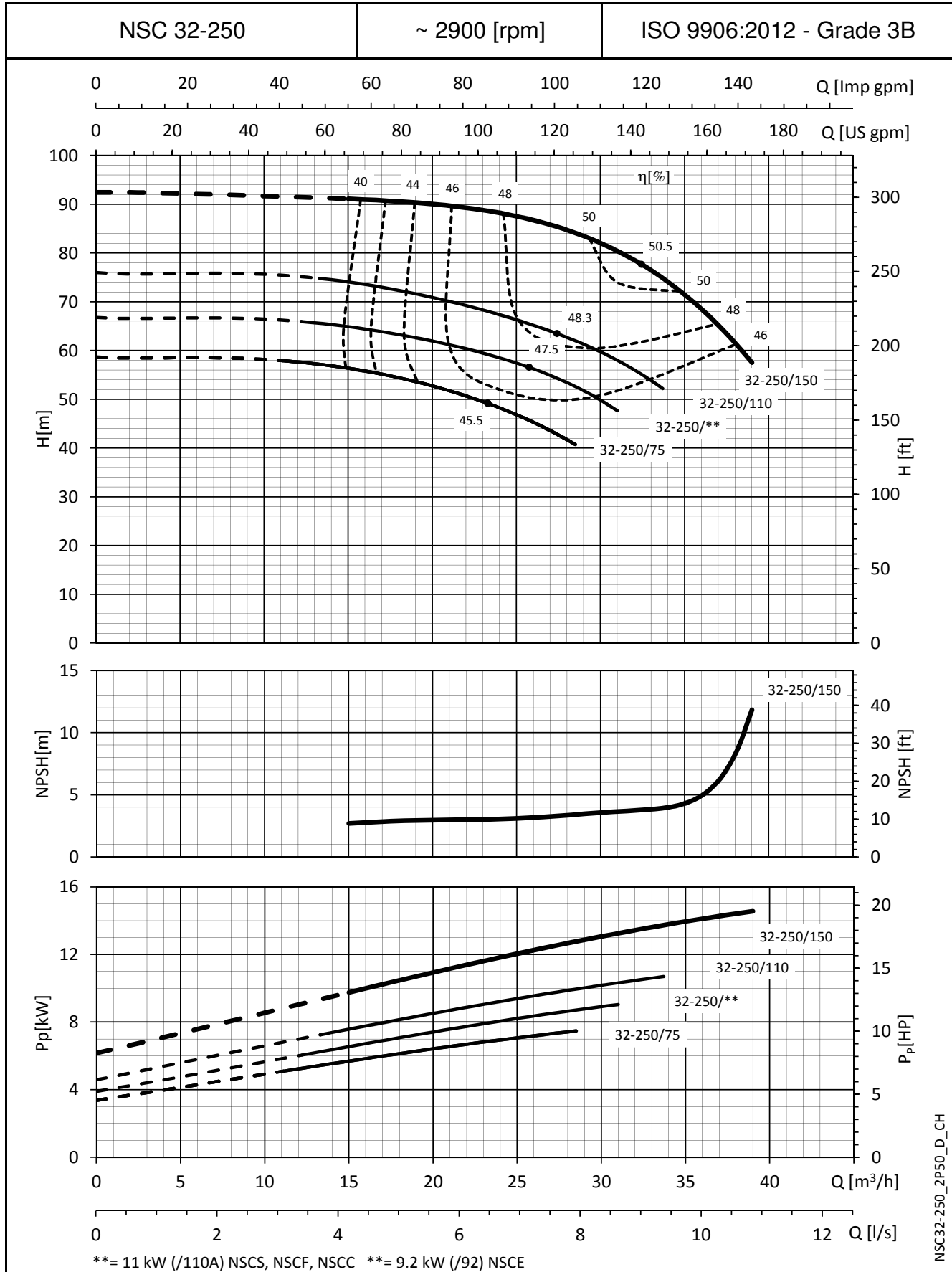
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



NSC2 32-250_2P50_B_CH

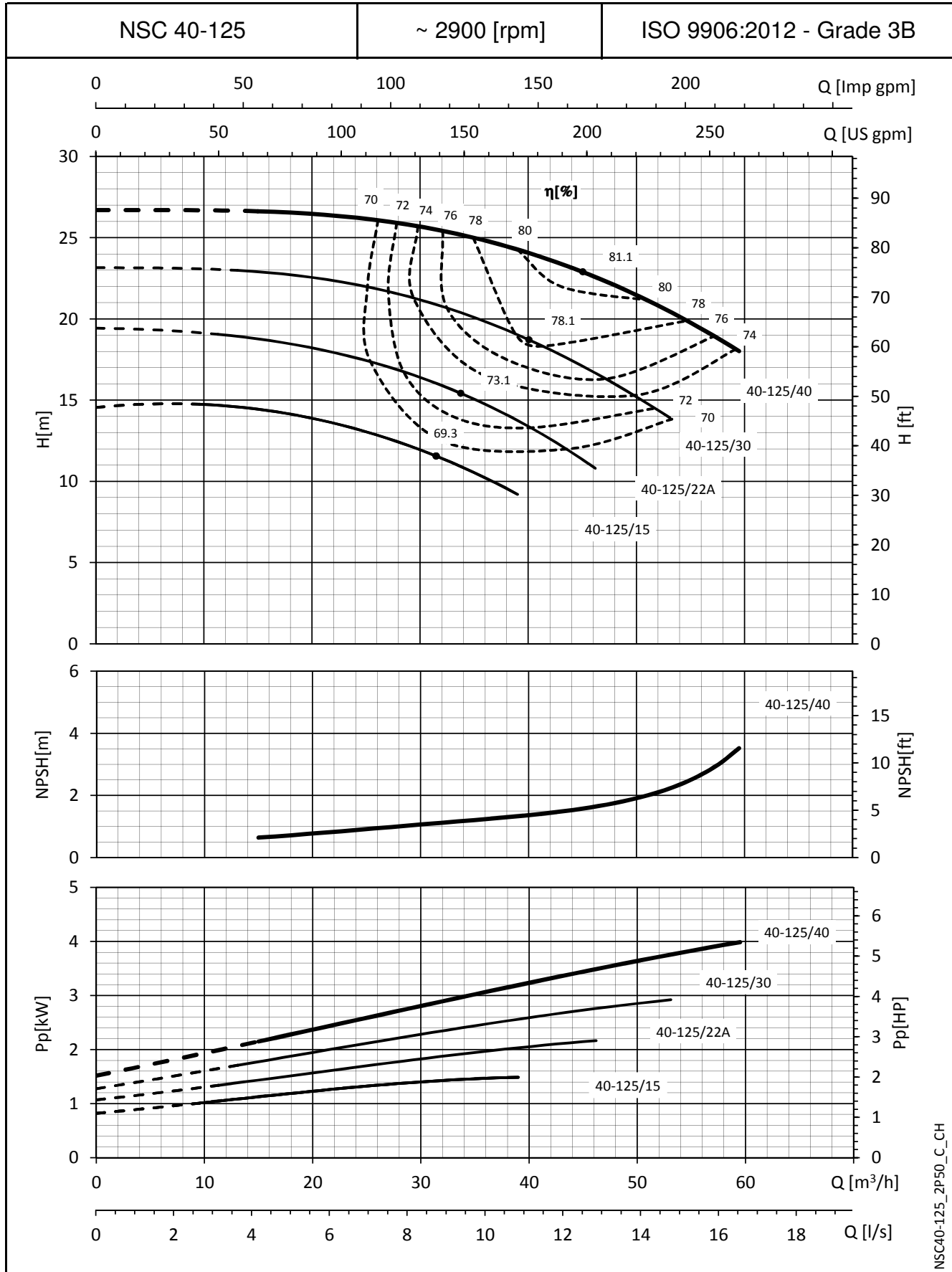
The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

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



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

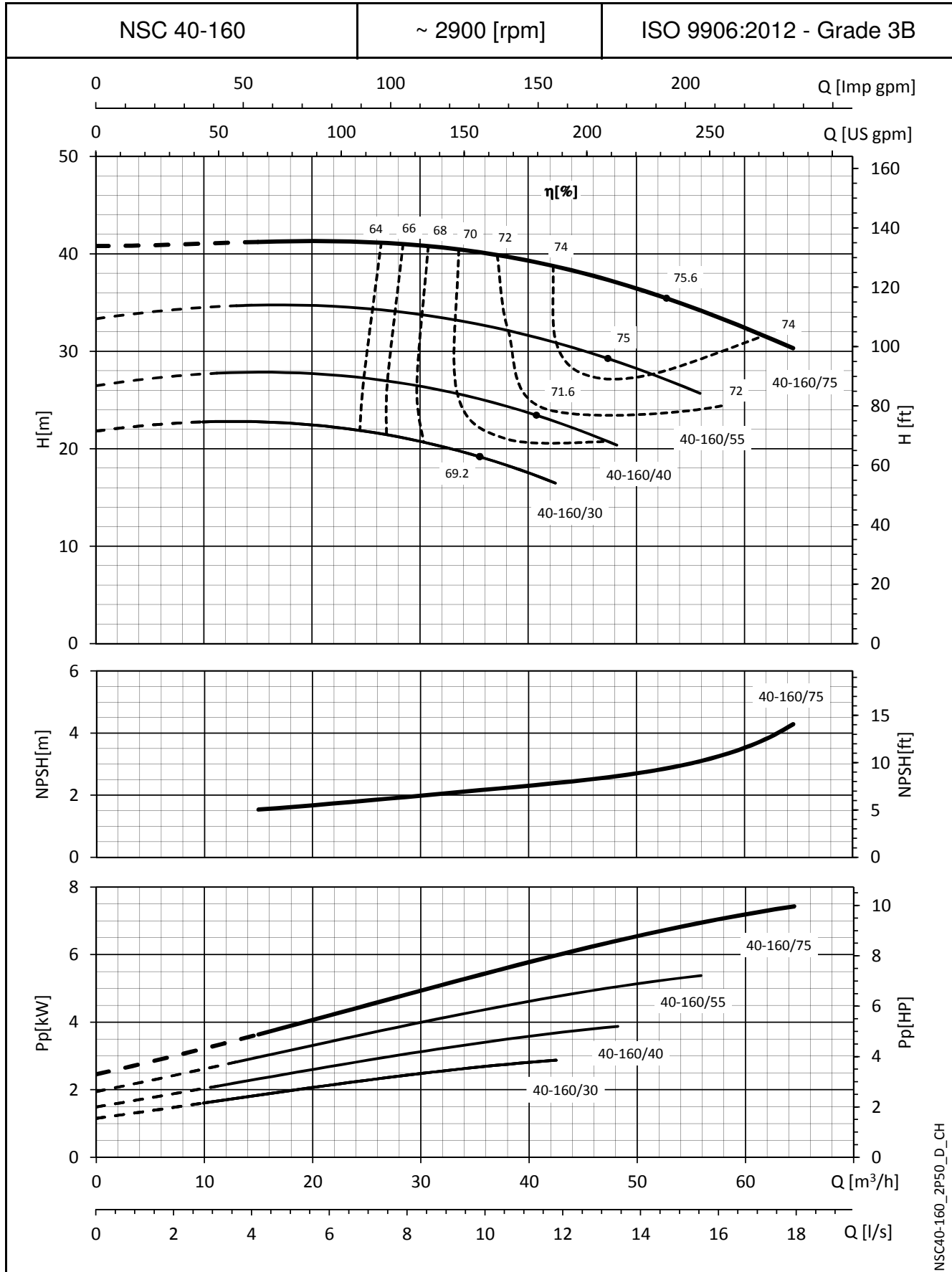
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



NSC40-125_2P50_C_CH

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

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

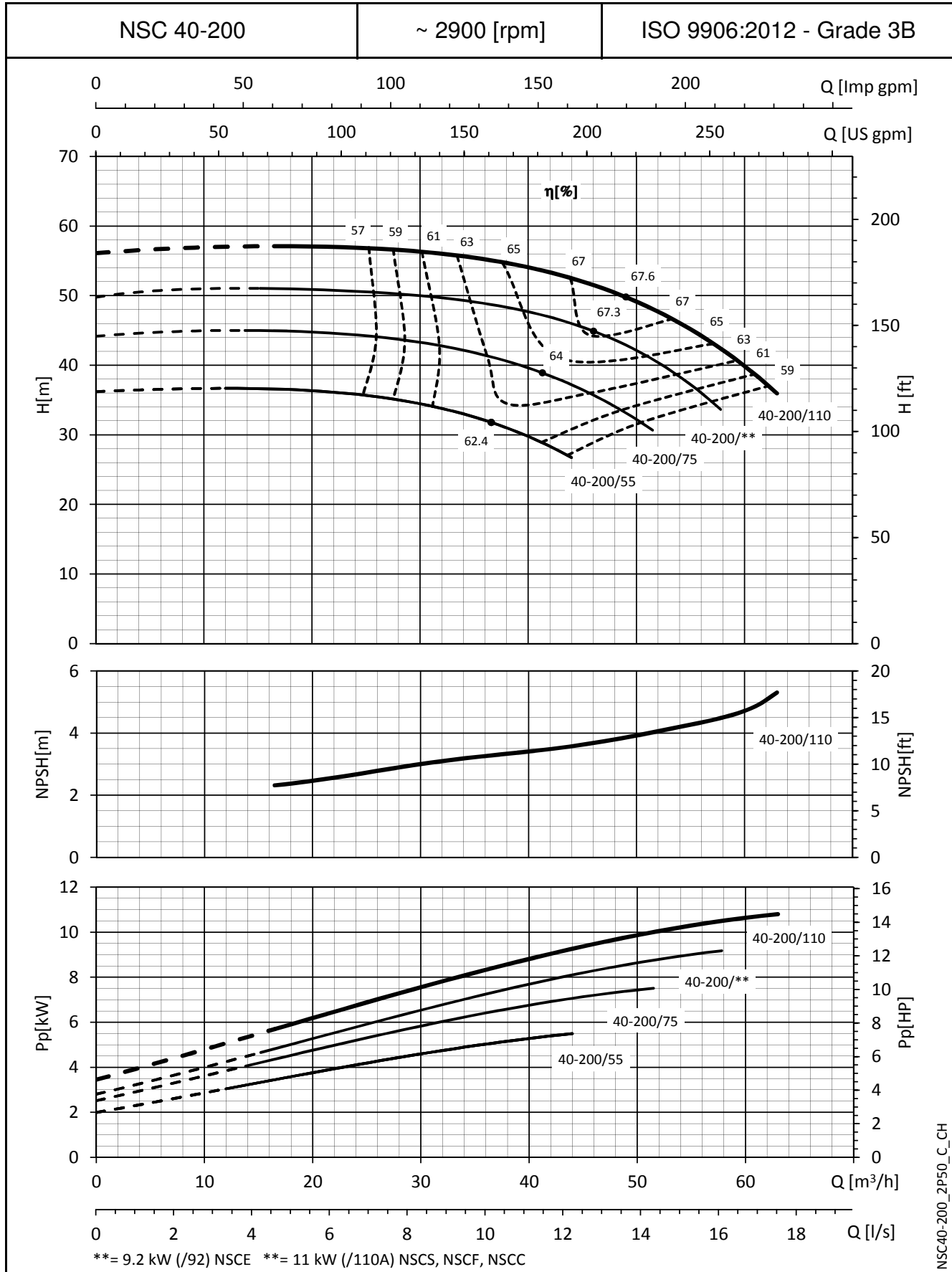


NSC40-160_2P50_D_CH

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

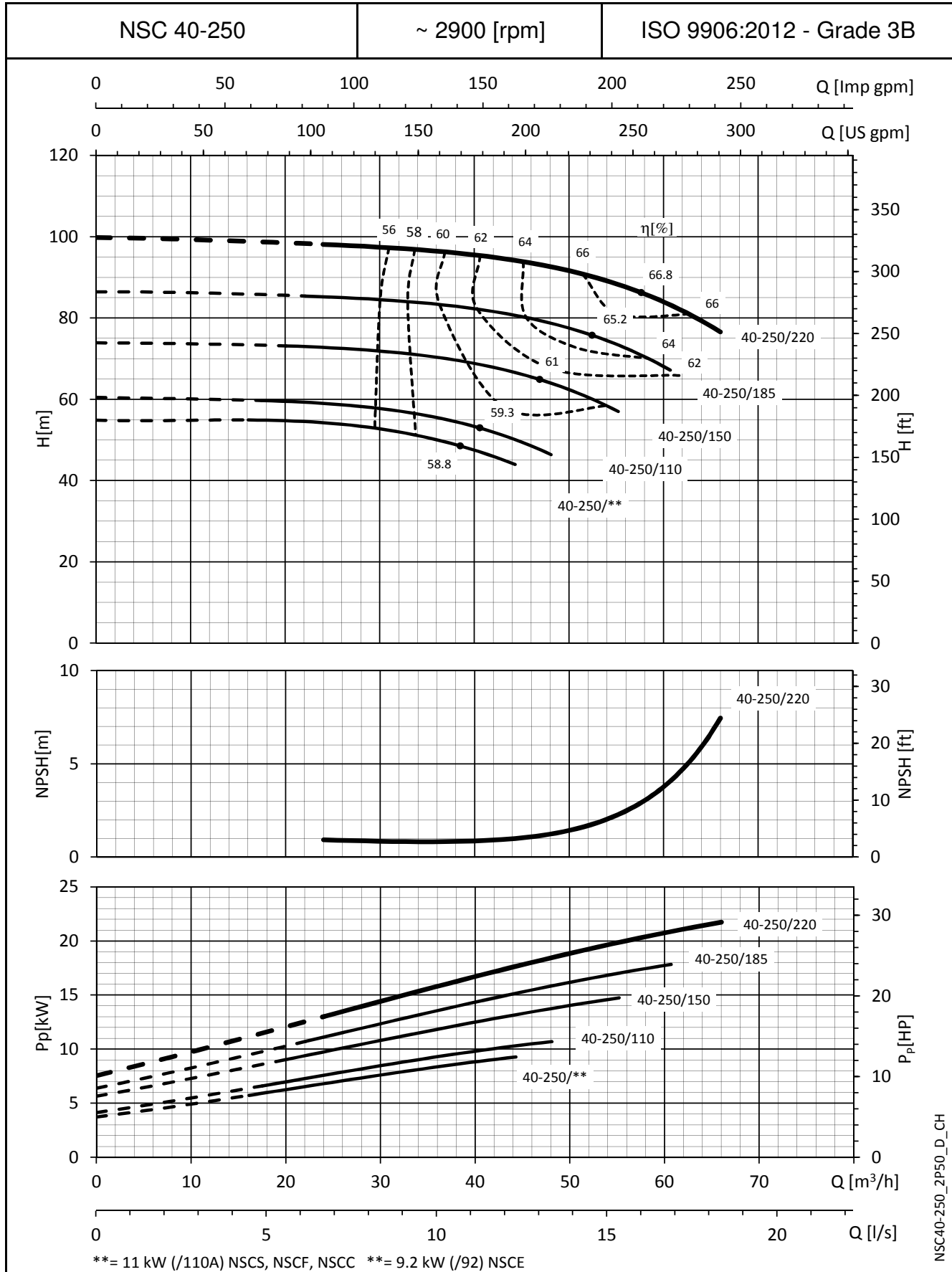
e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



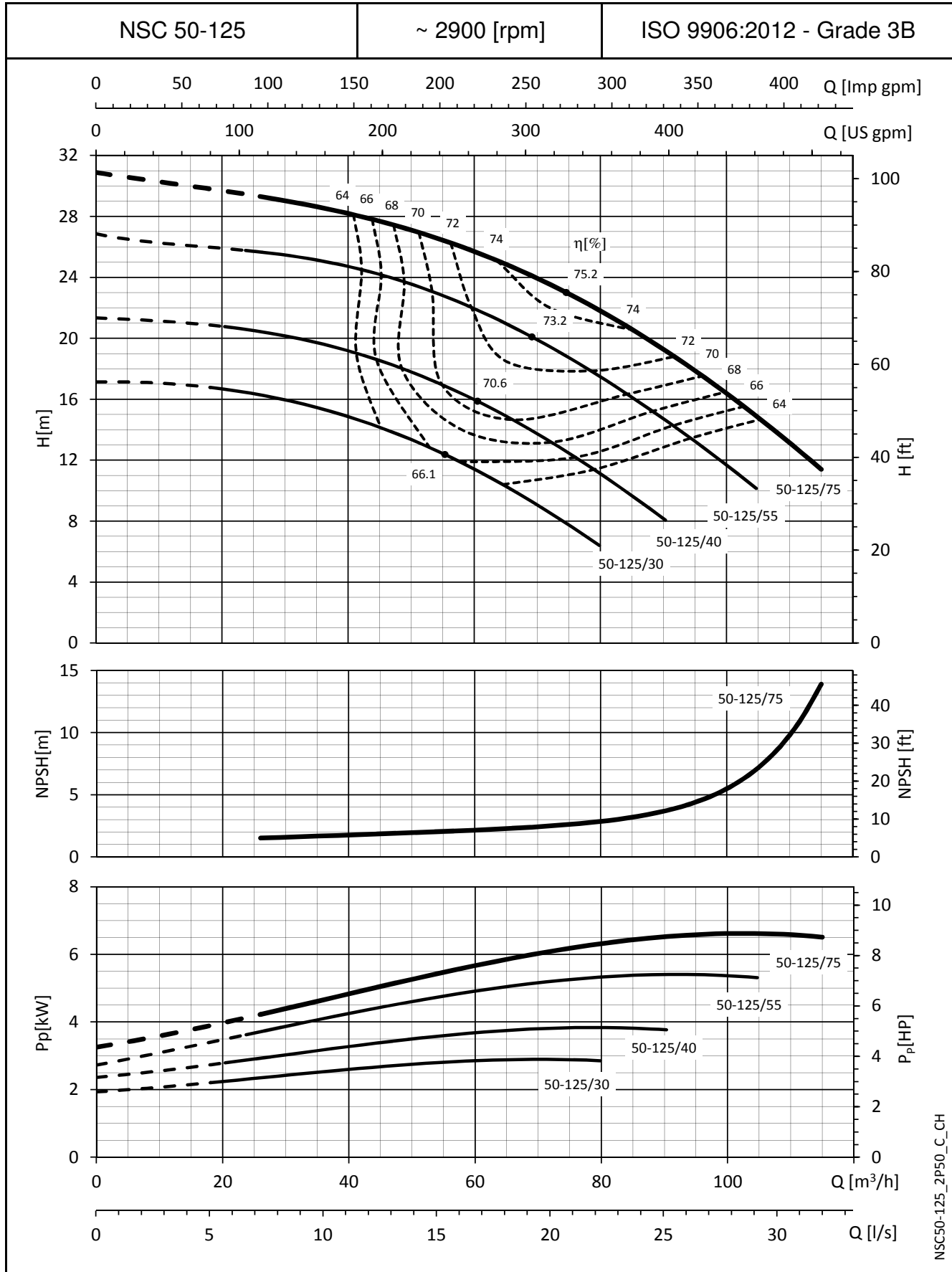
The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

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



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

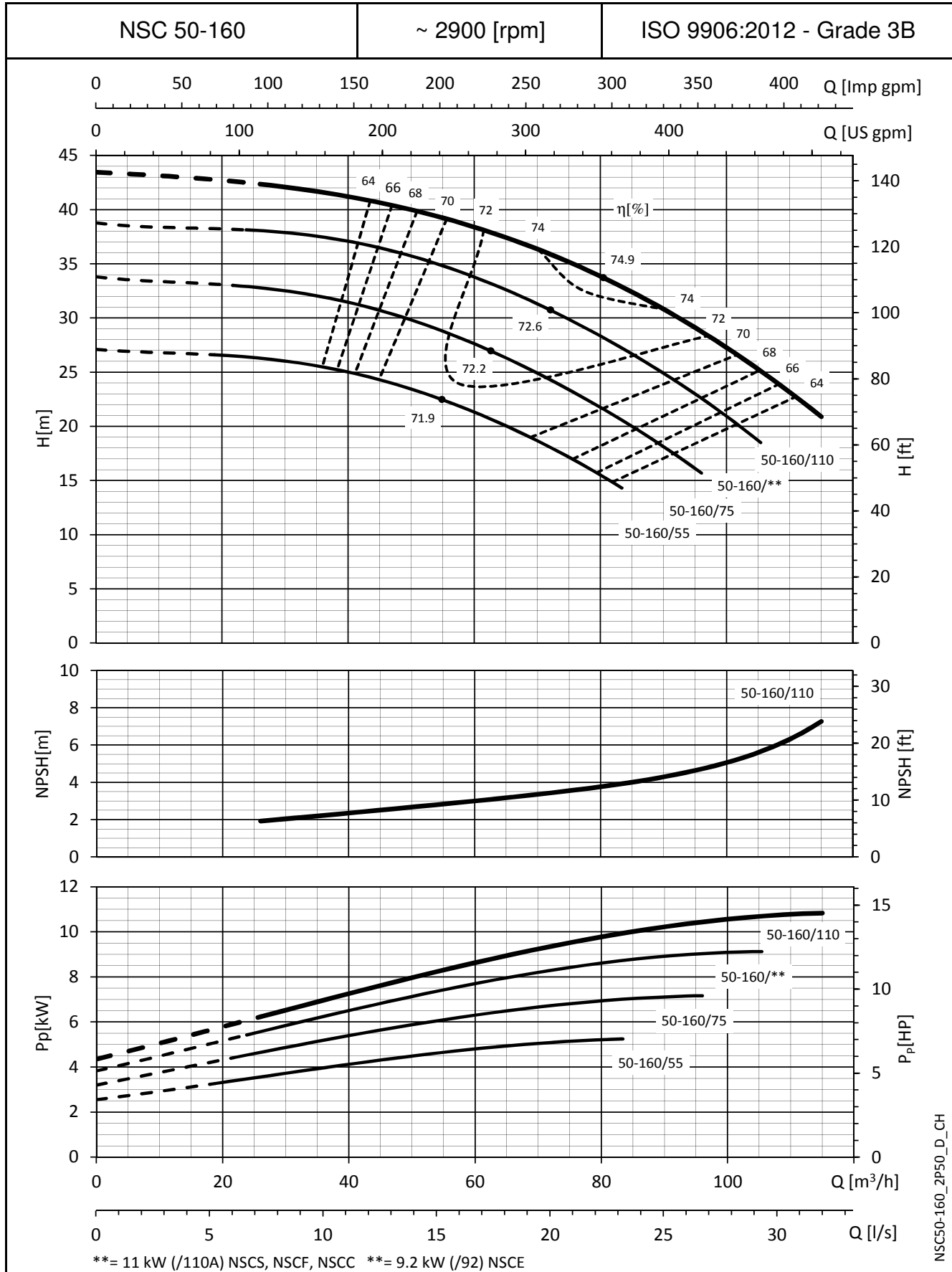
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



NSC50-125_2P50_C_CH

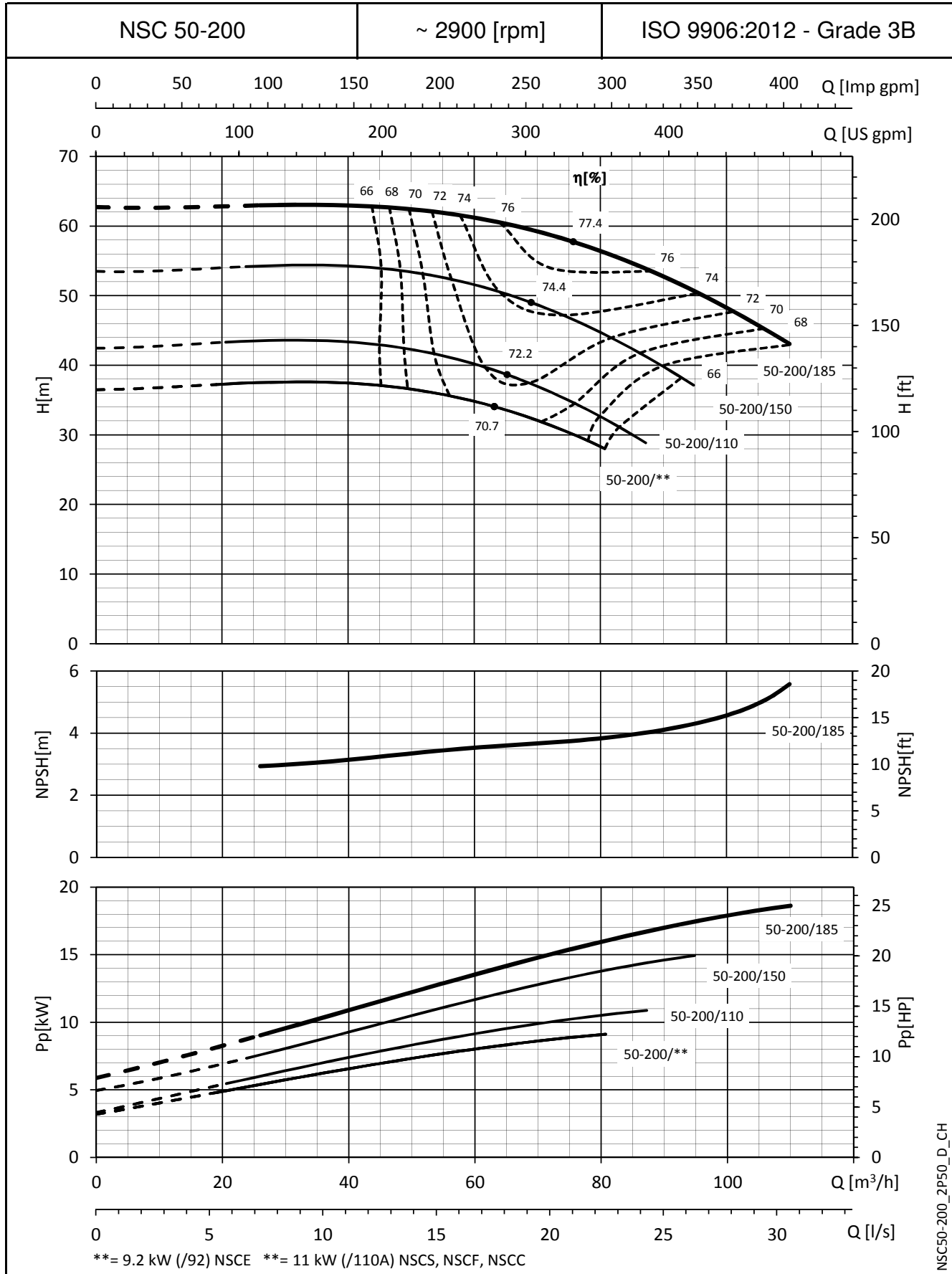
The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

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



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

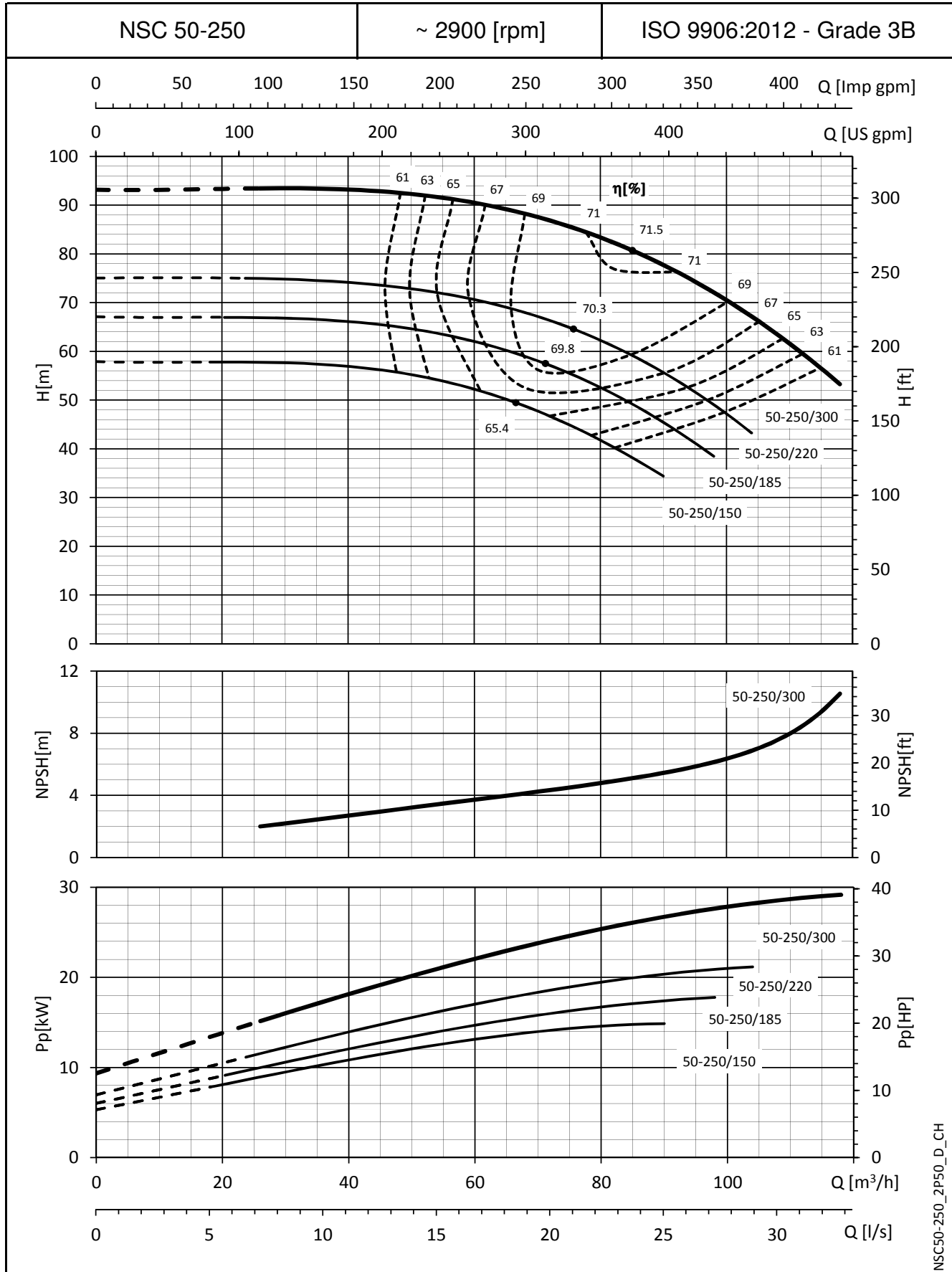
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



NSC50-200_2P50_D_CH

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

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

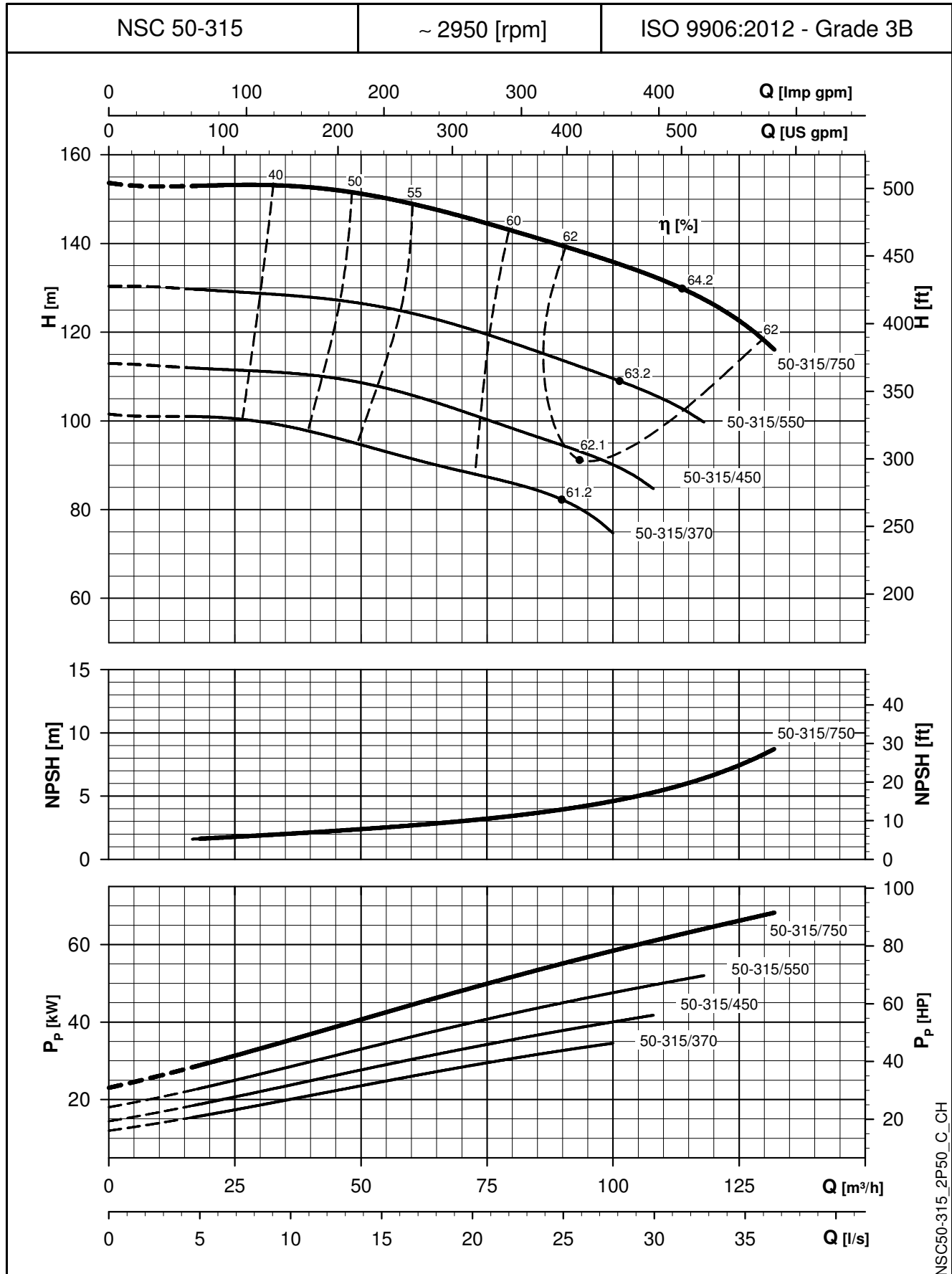


NSC50-250_2P50_D_CH

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

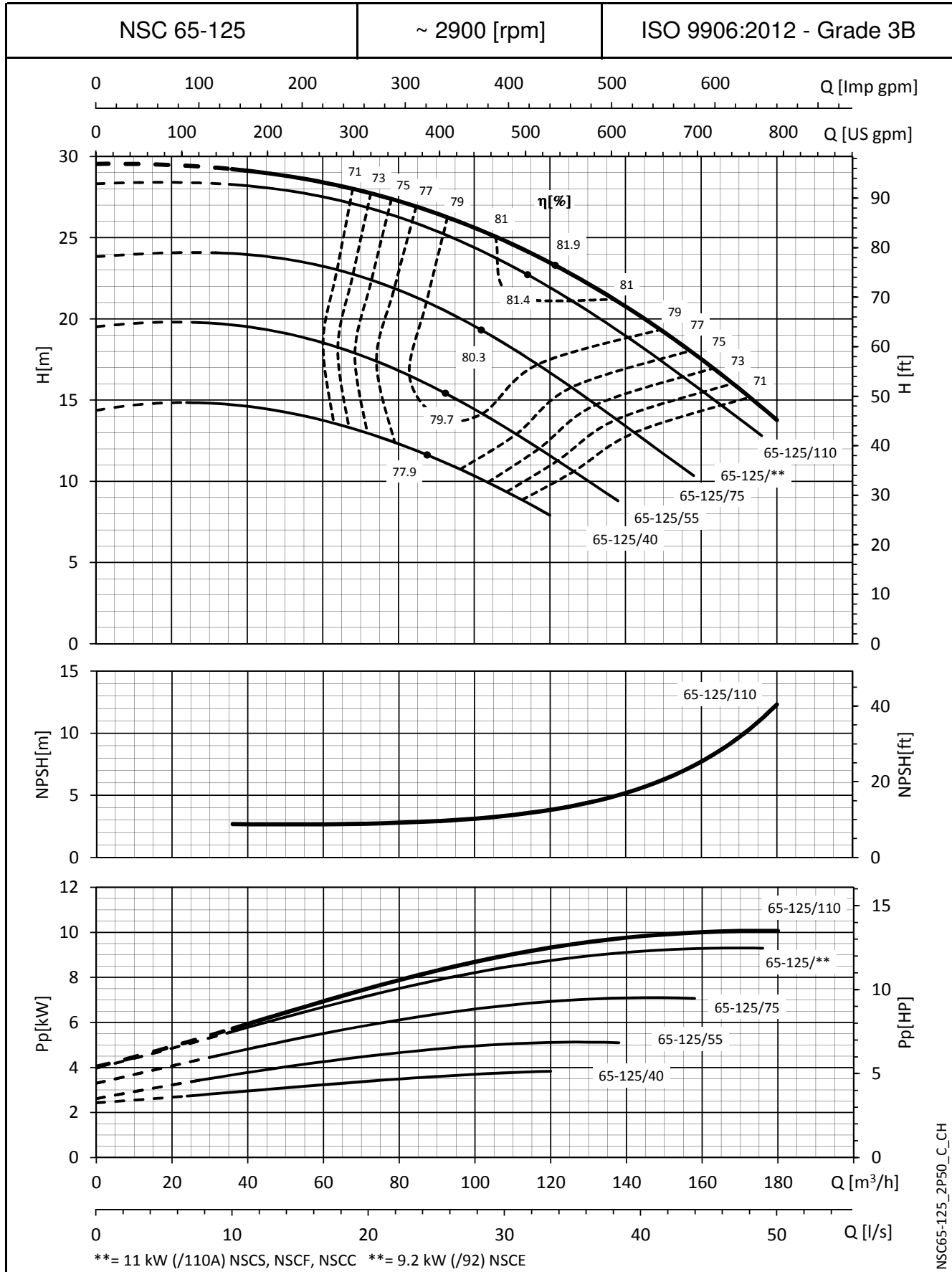
e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



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

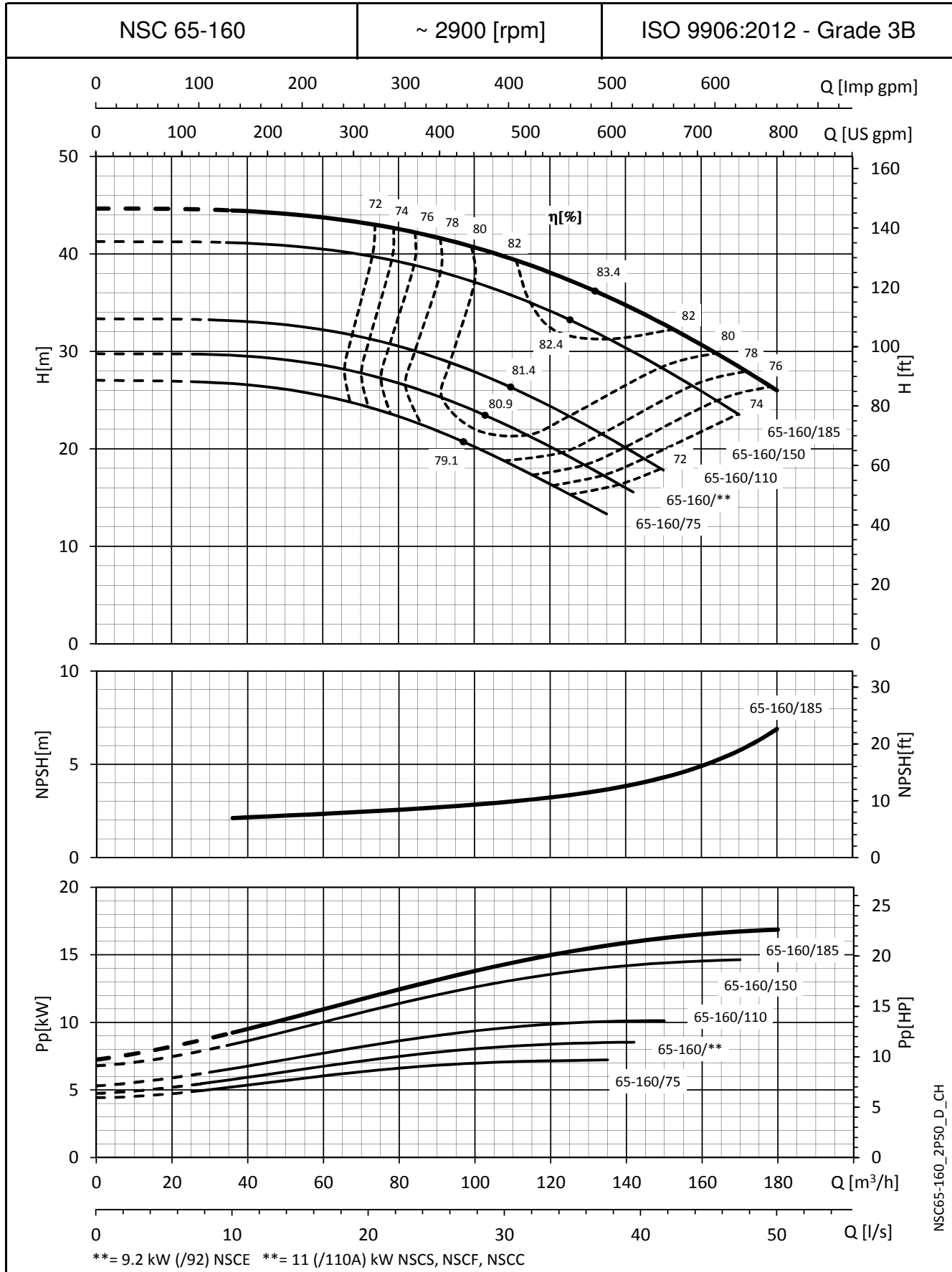
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



NSC65-125_2P50_C_CH

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

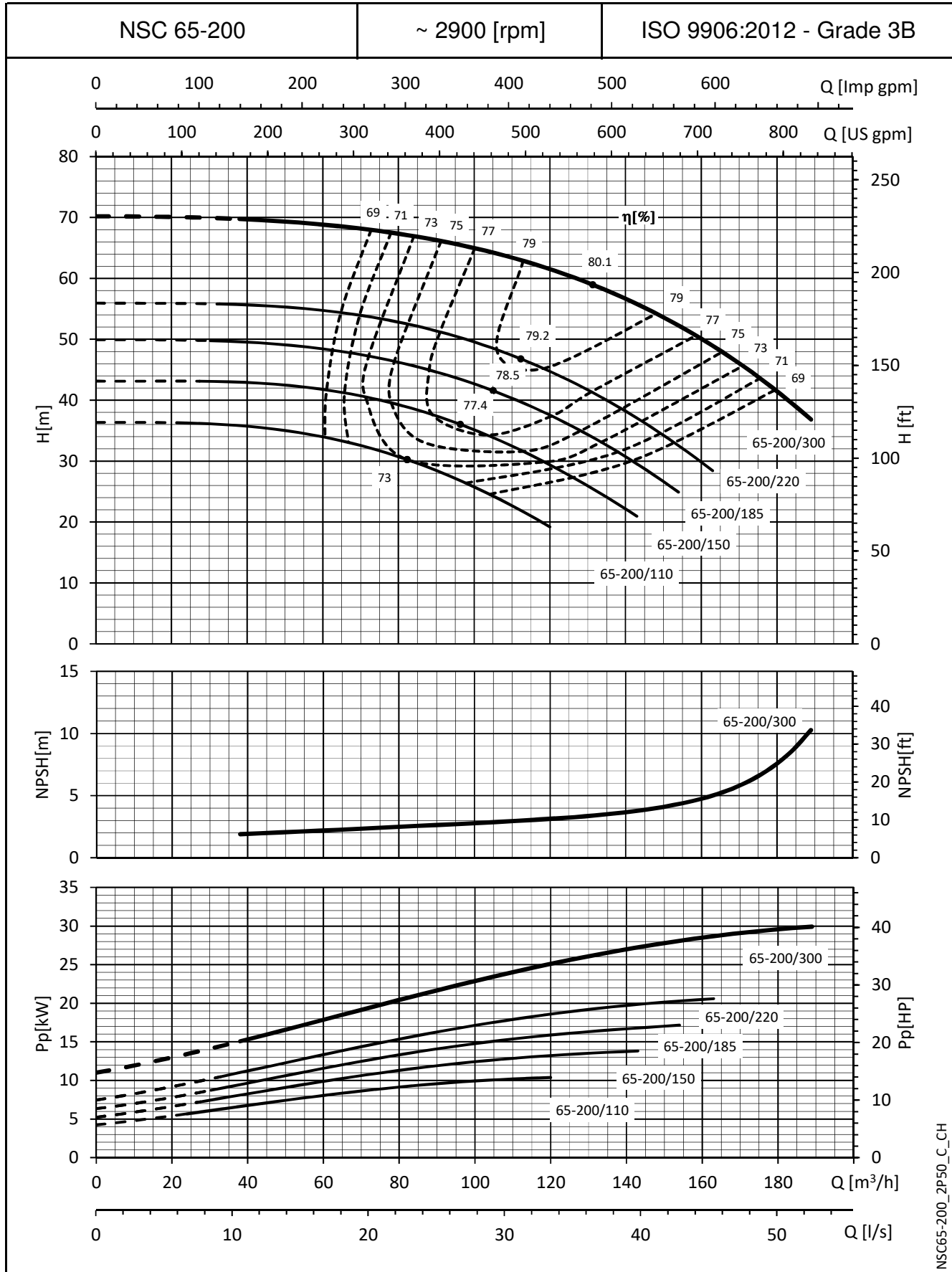
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



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

e-NSC SERIES

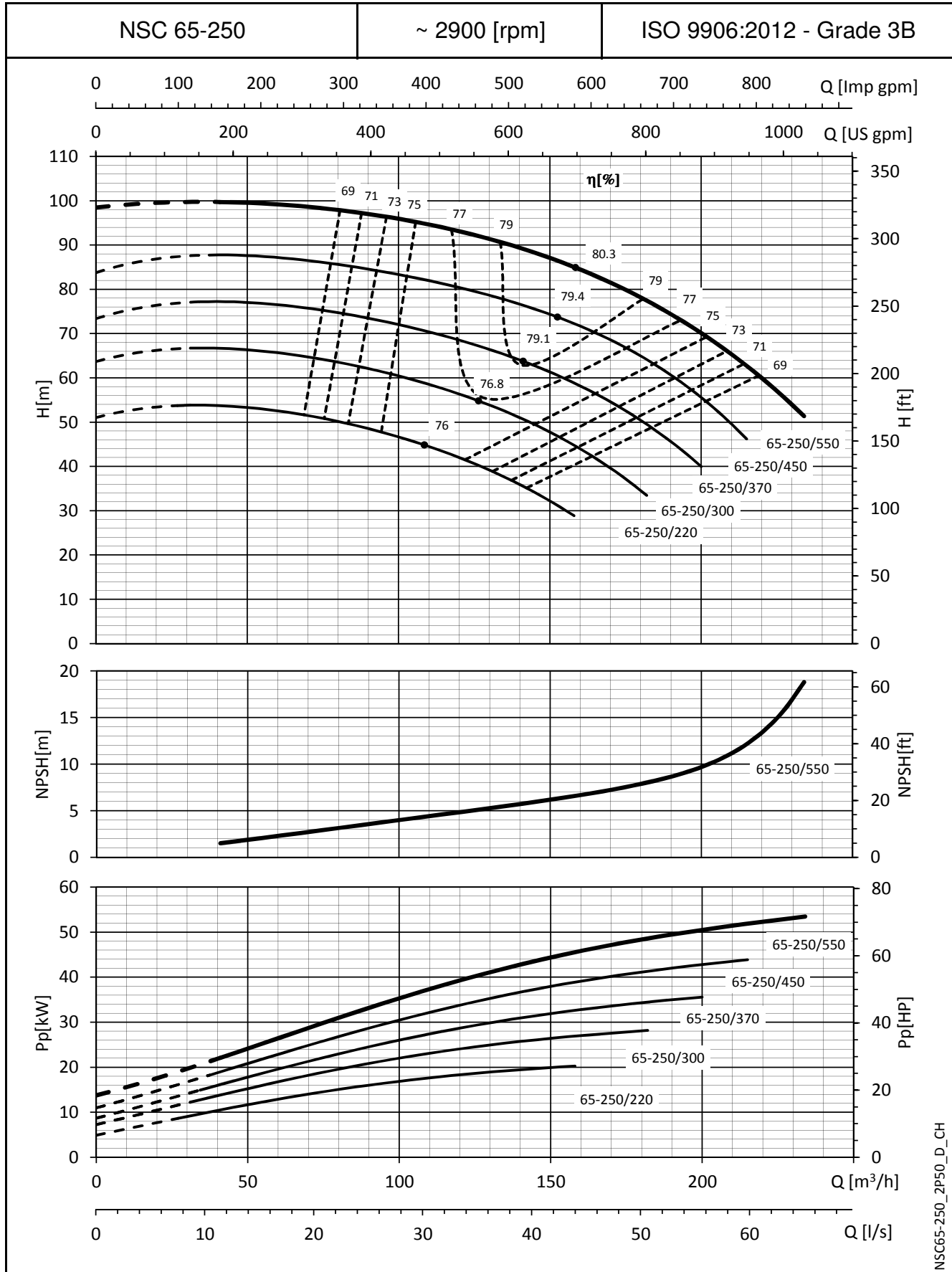
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



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

e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES

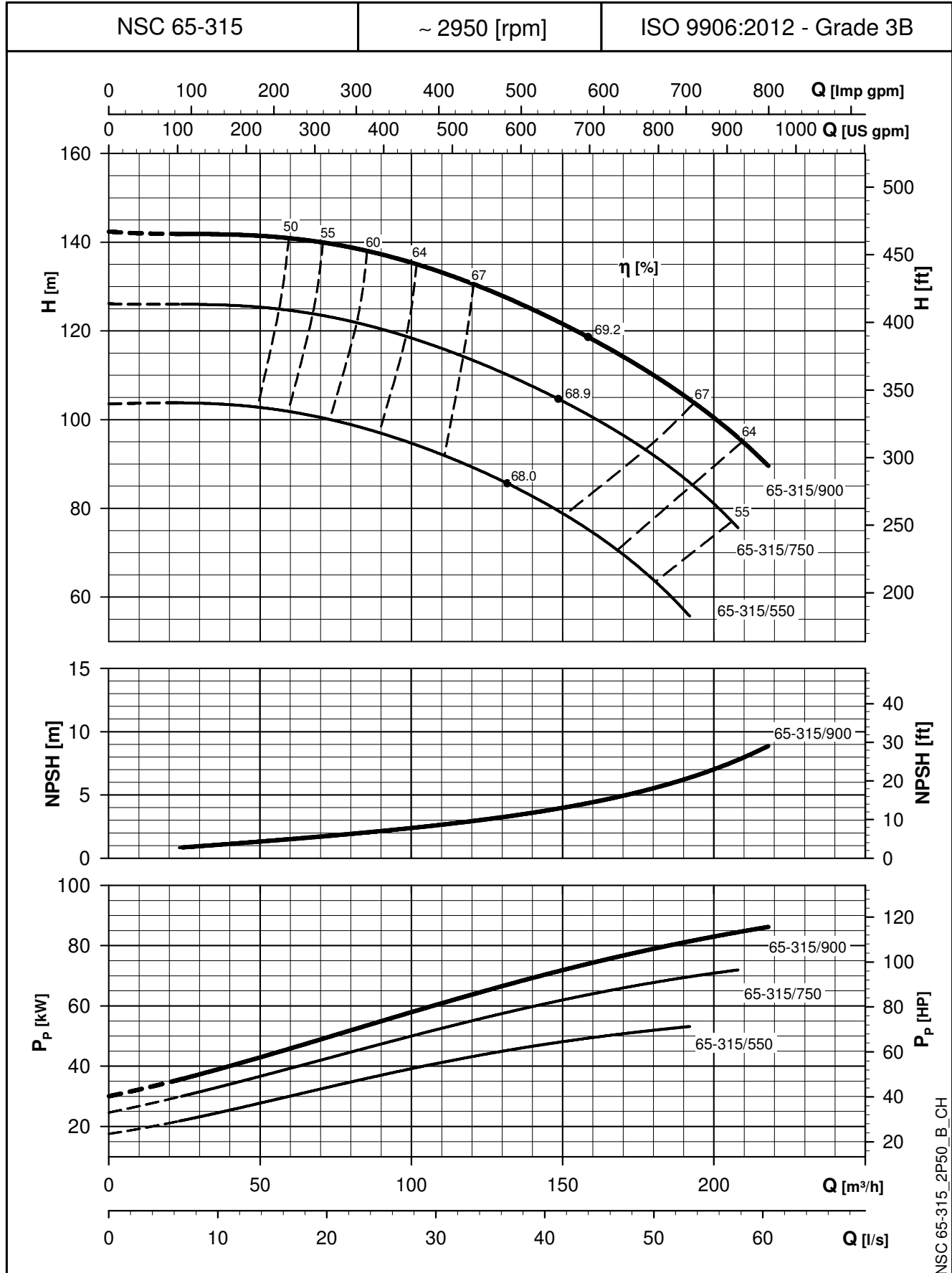


NSC65-250_2P50_D_CH

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

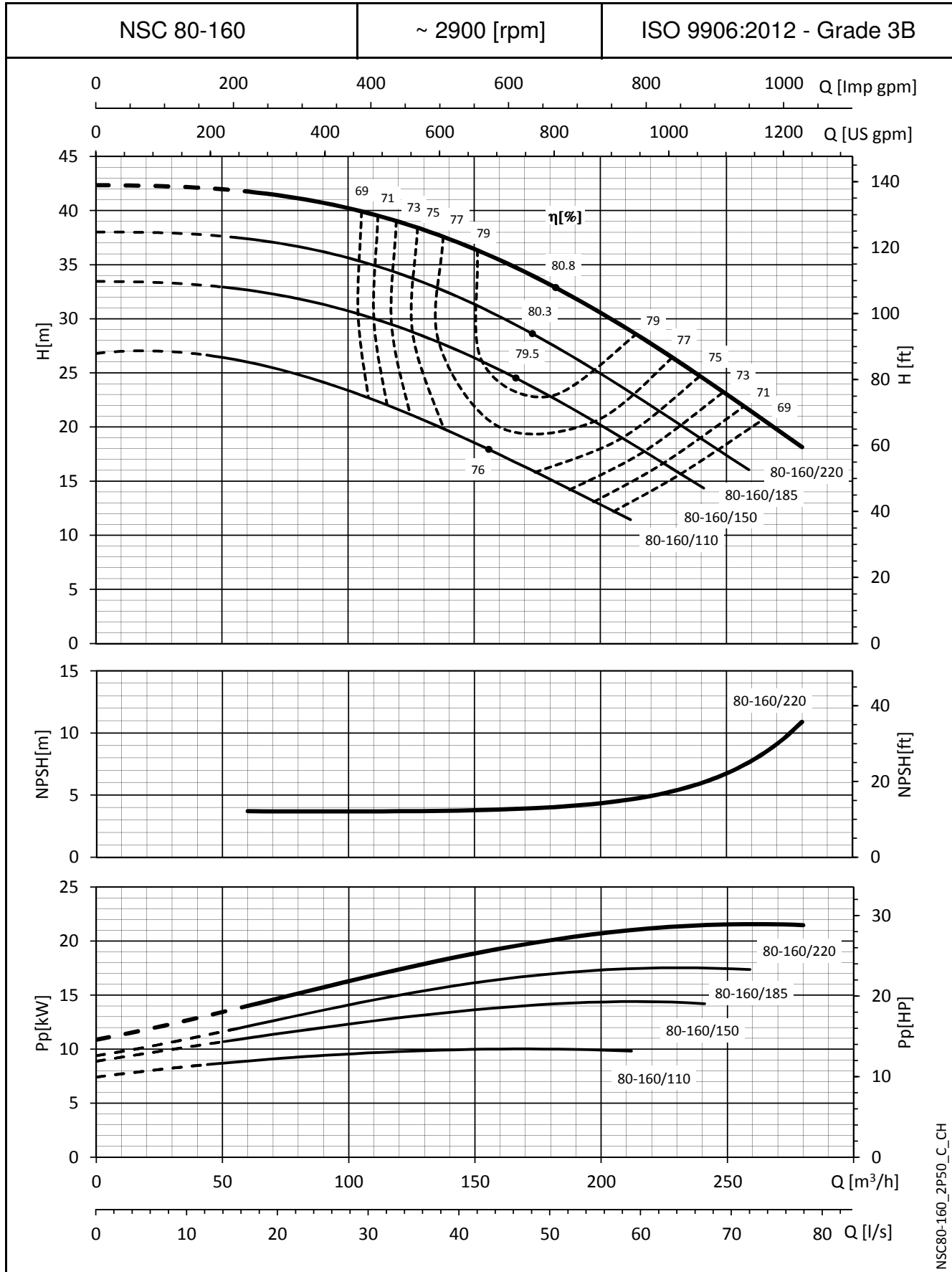
e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



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

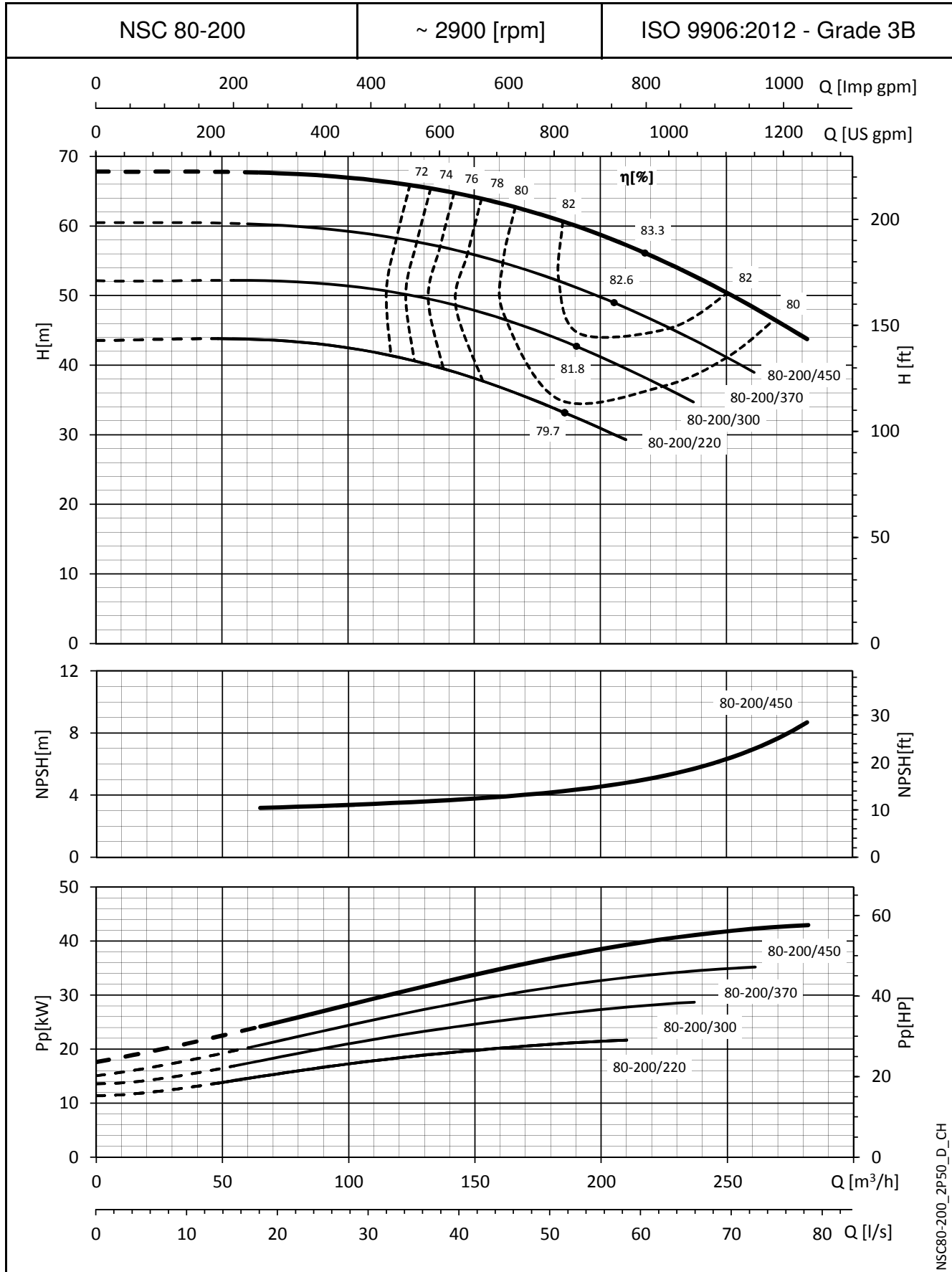
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



NSC80-160_2P50_C_CH

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

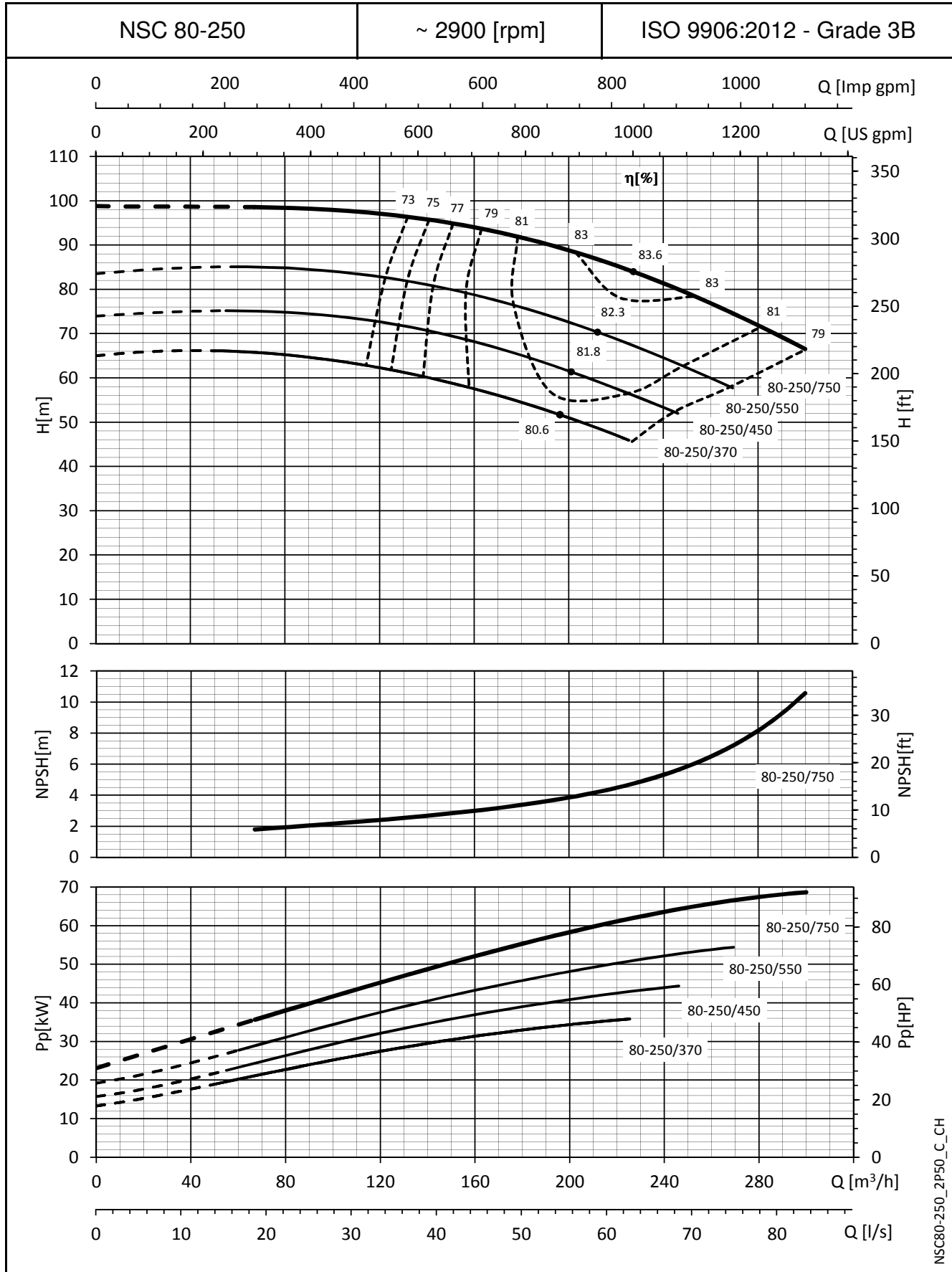
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



NSC80-200_2P50_D_CH

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

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

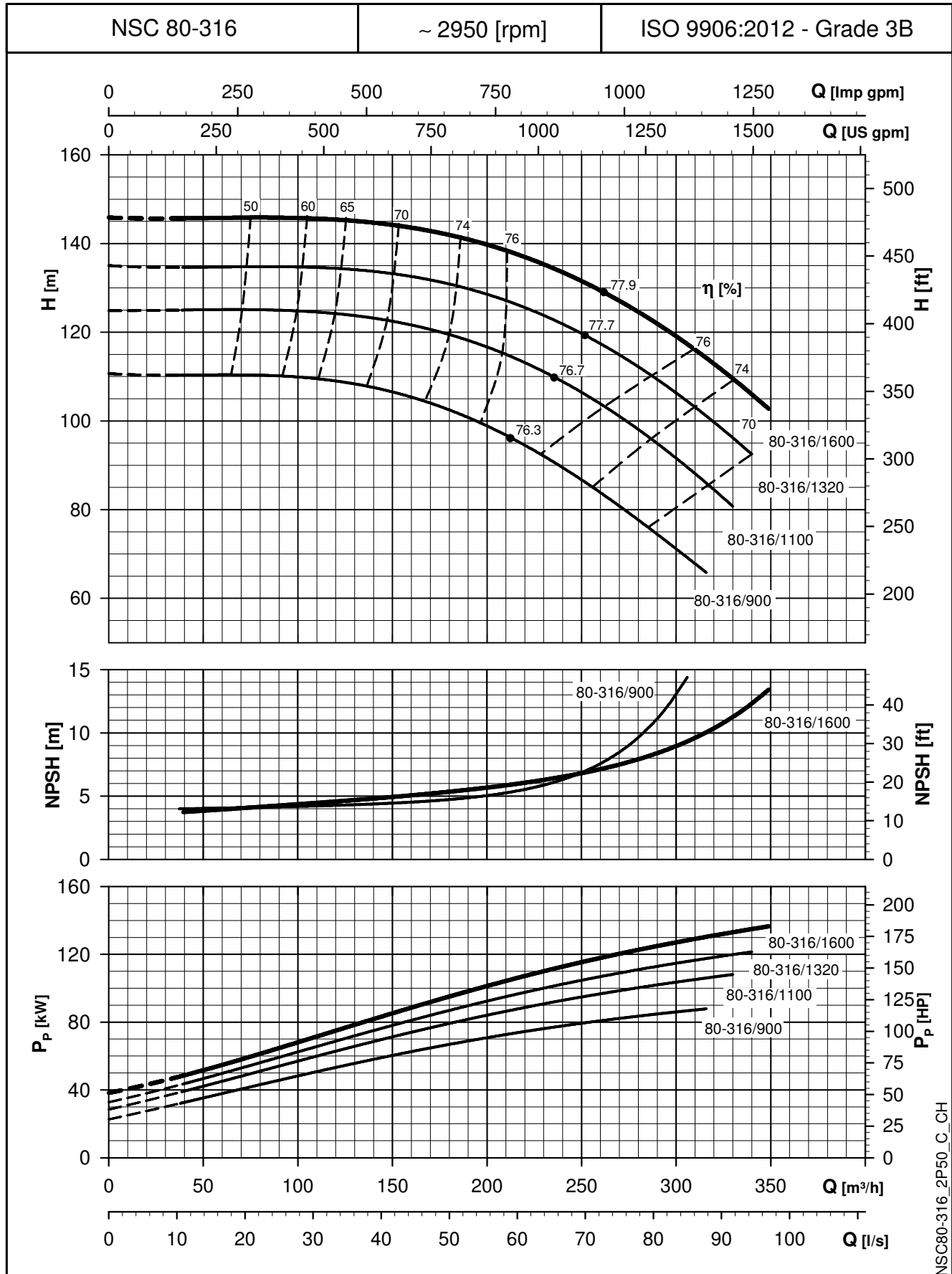


NSC80-250_2PF50_C_CH

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

e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES

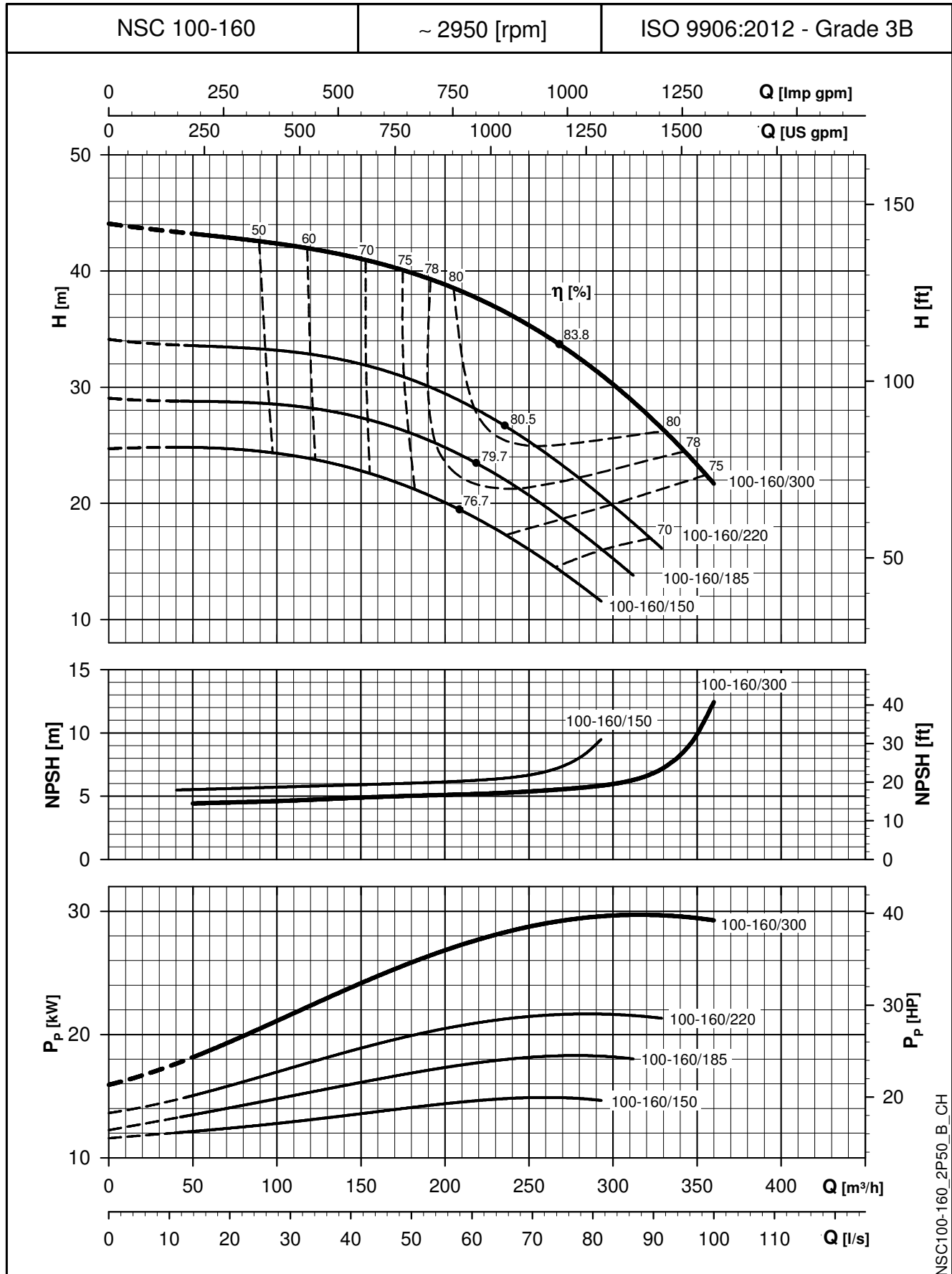


NSC80-316_2P50_C_CH

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

e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES

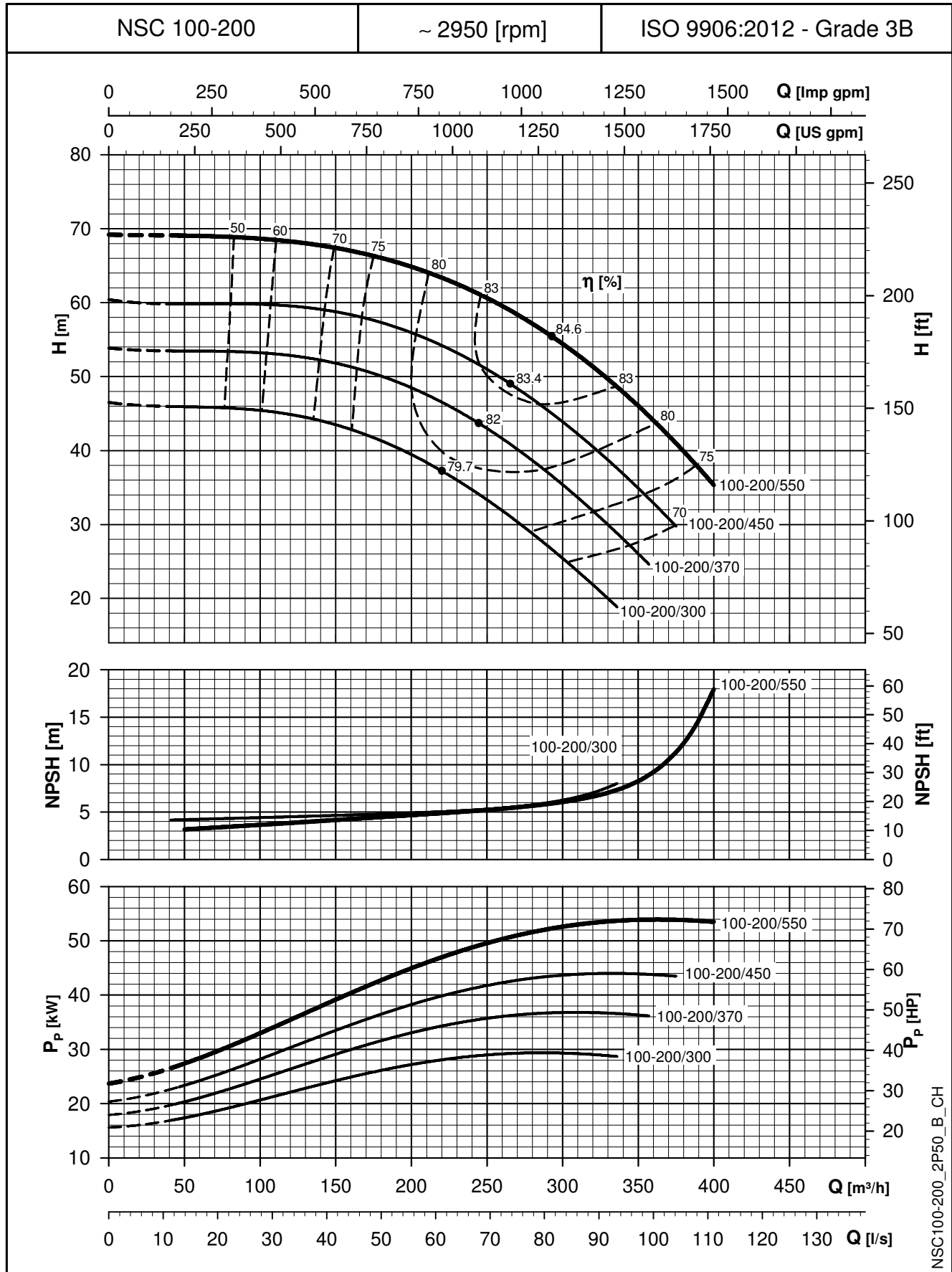


NSC100-160_2P50_B_CH

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

e-NSC SERIES

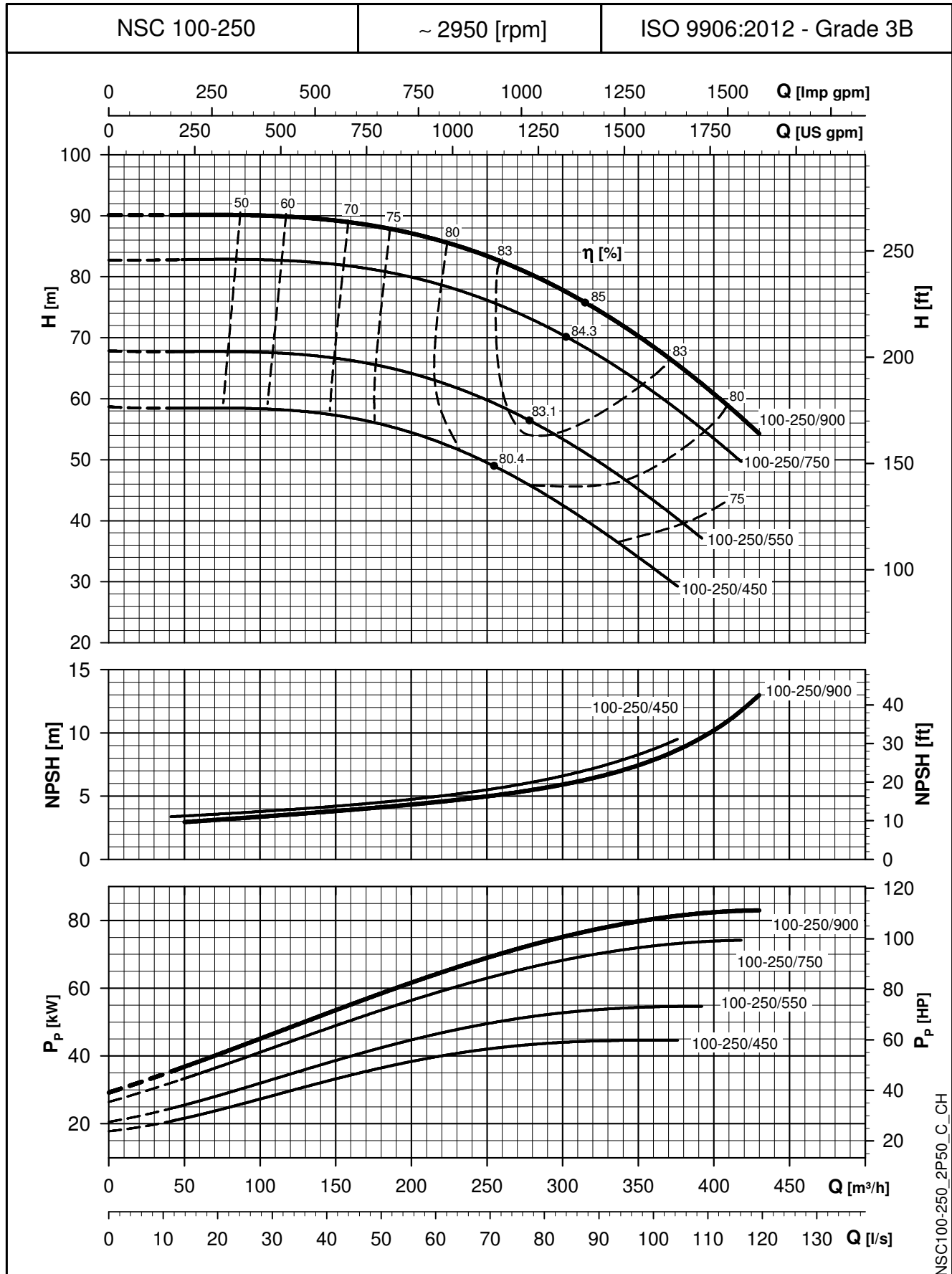
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



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

e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES

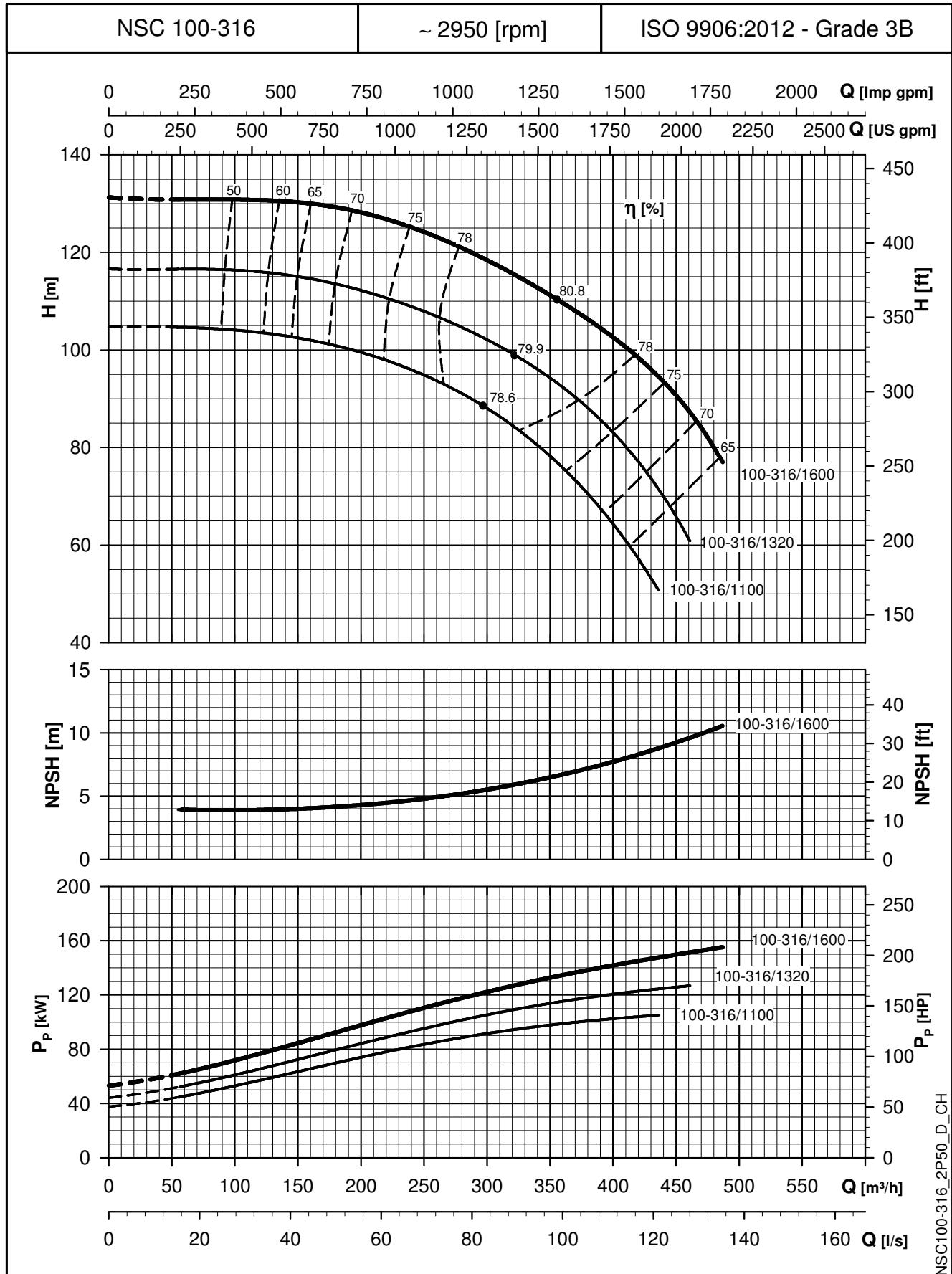


NSC100-250_2P50_C_CH

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

e-NSC SERIES

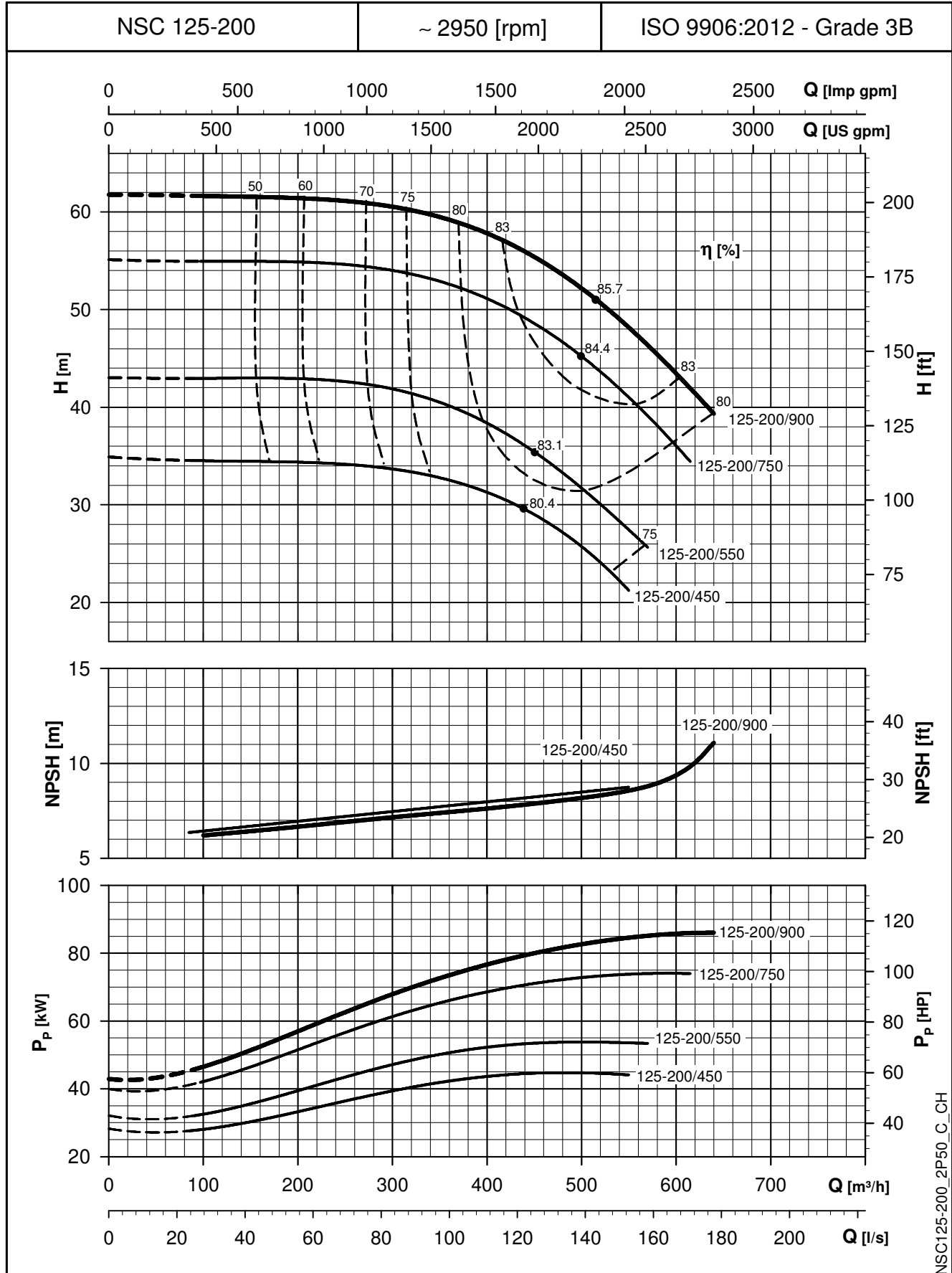
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



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

e-NSC SERIES

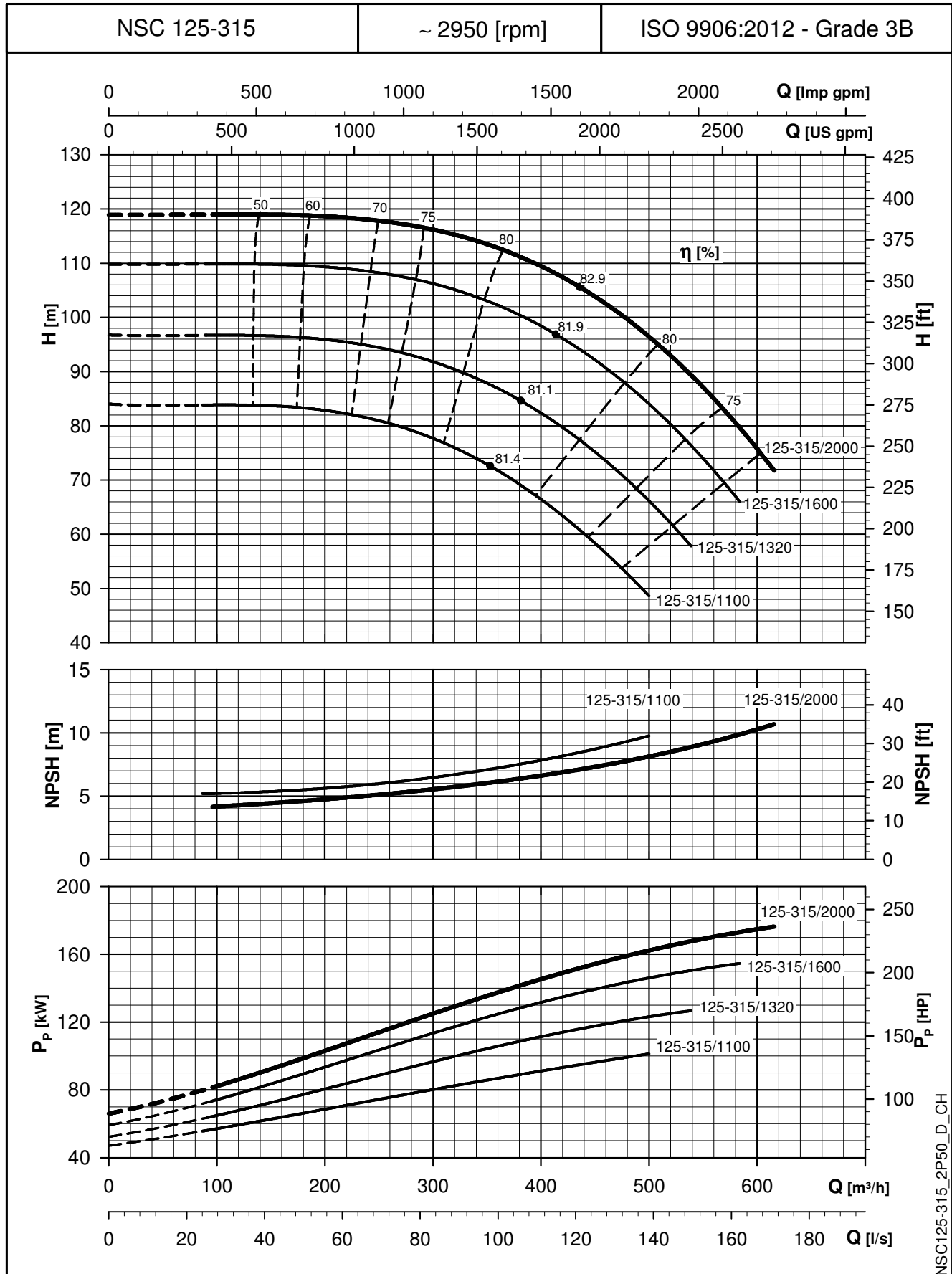
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



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

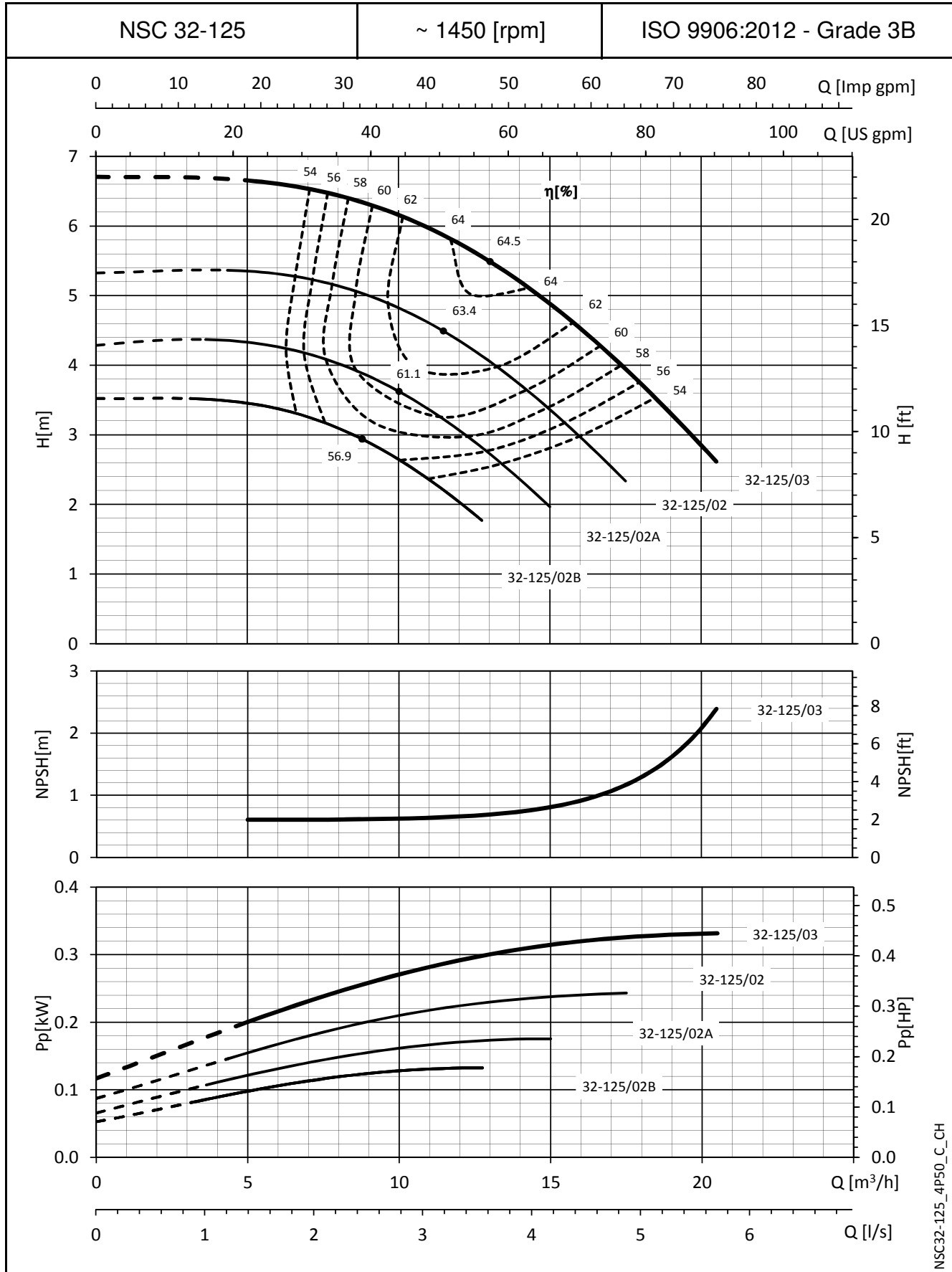
e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



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

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

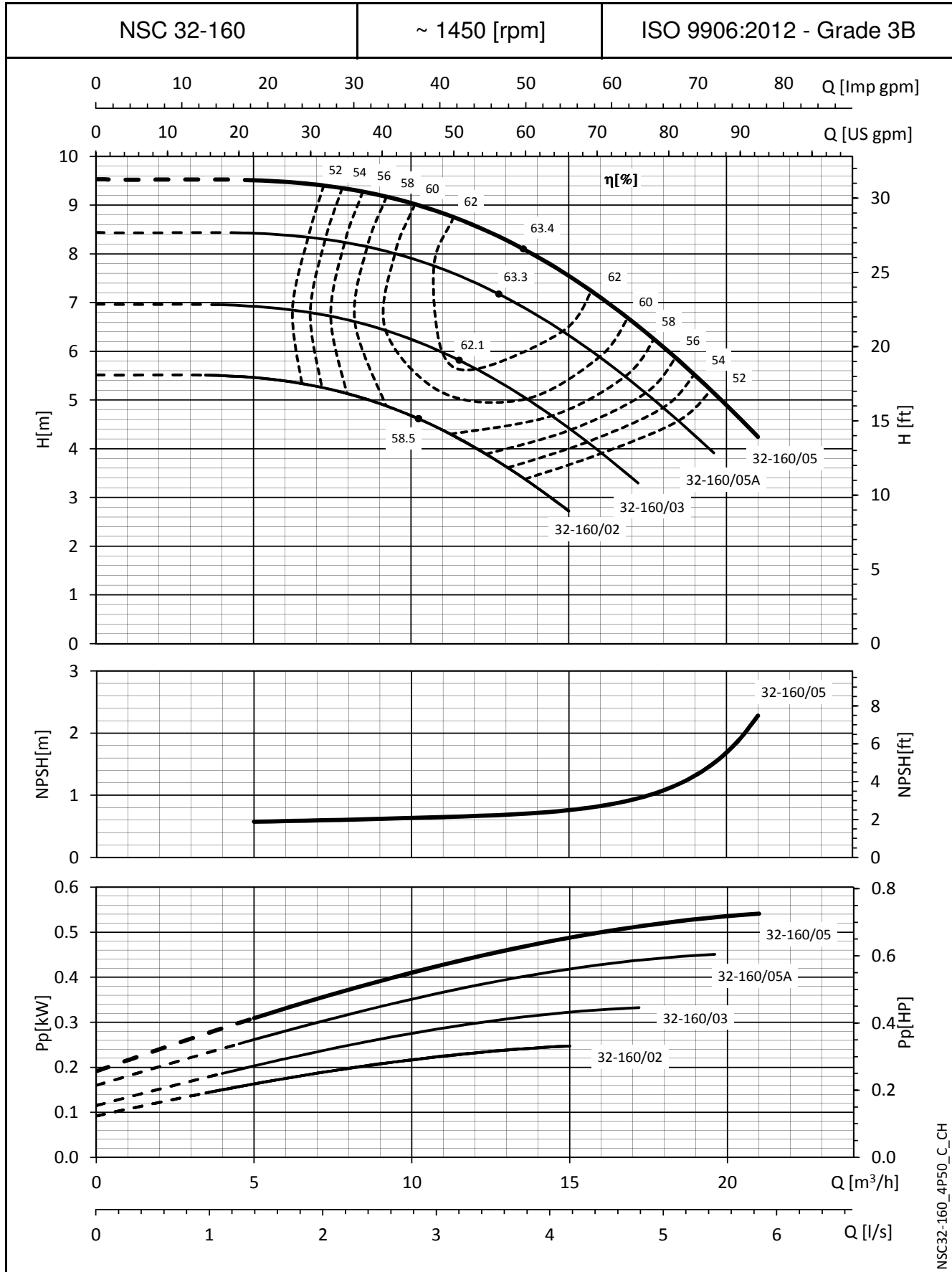


NSC32-125_4P50_C_CH

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

e-NSC SERIES

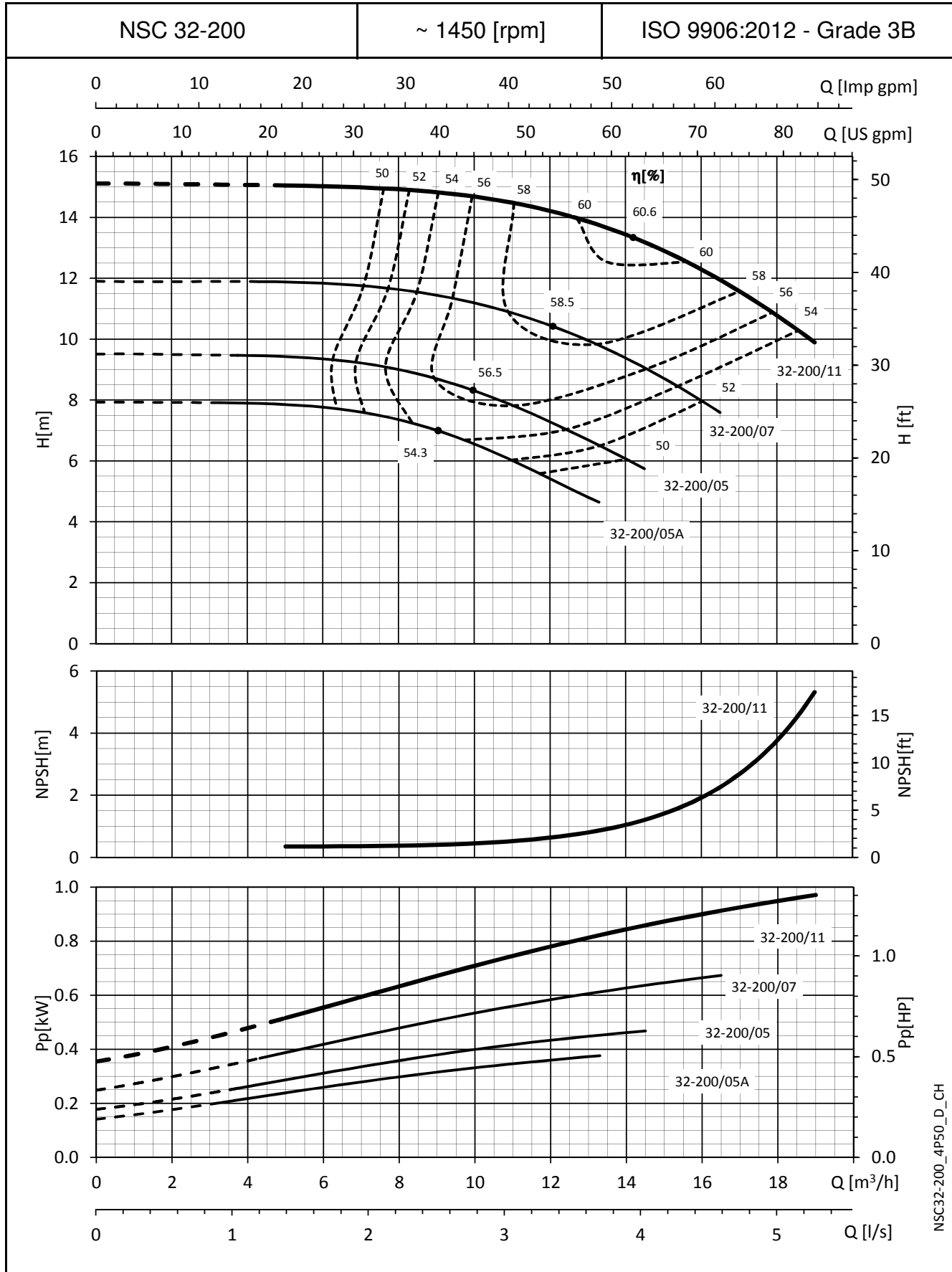
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



NSC32-160_4P50_C_CH

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

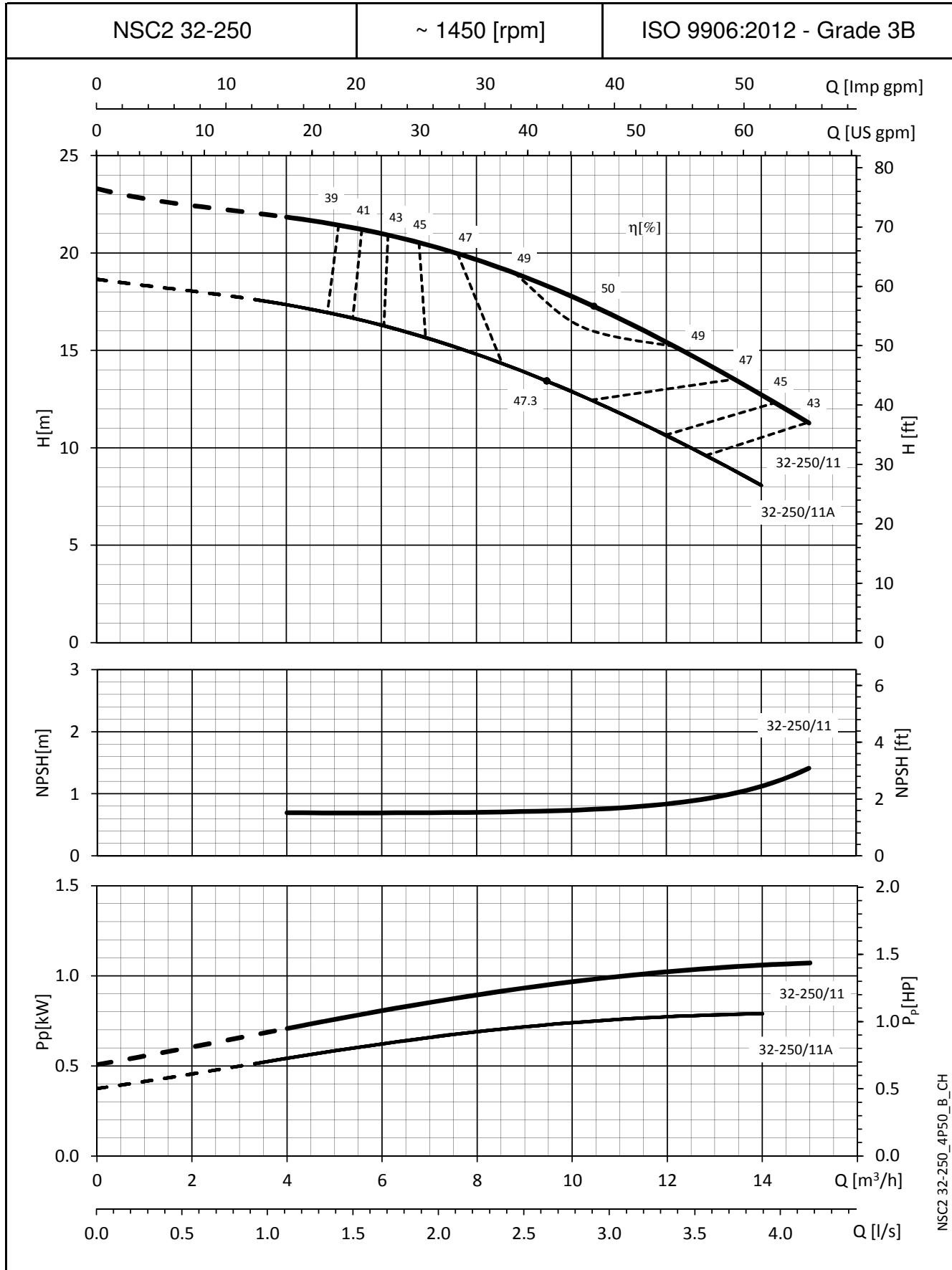
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



NSC32-200_4P50_D_CH

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

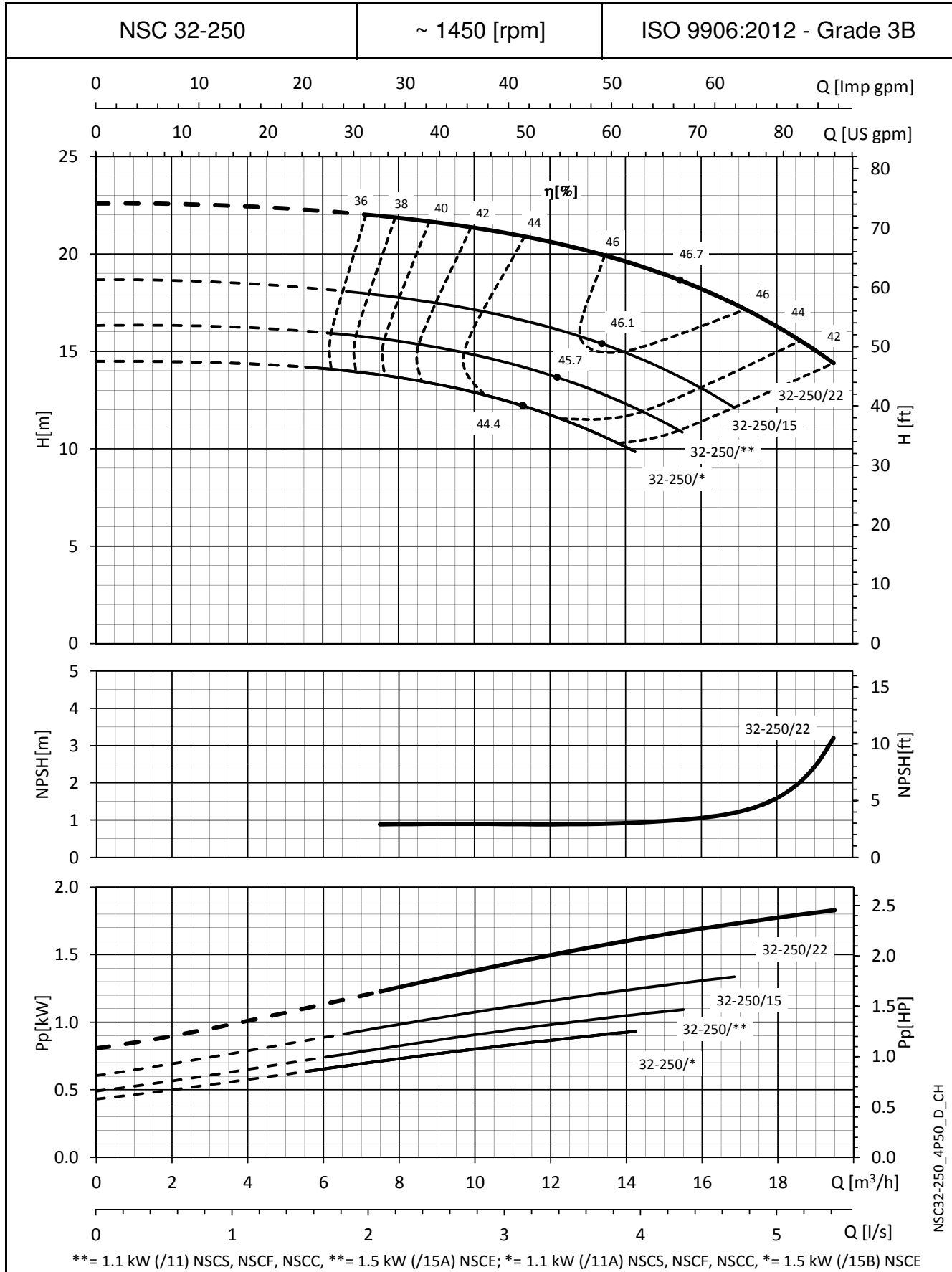
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

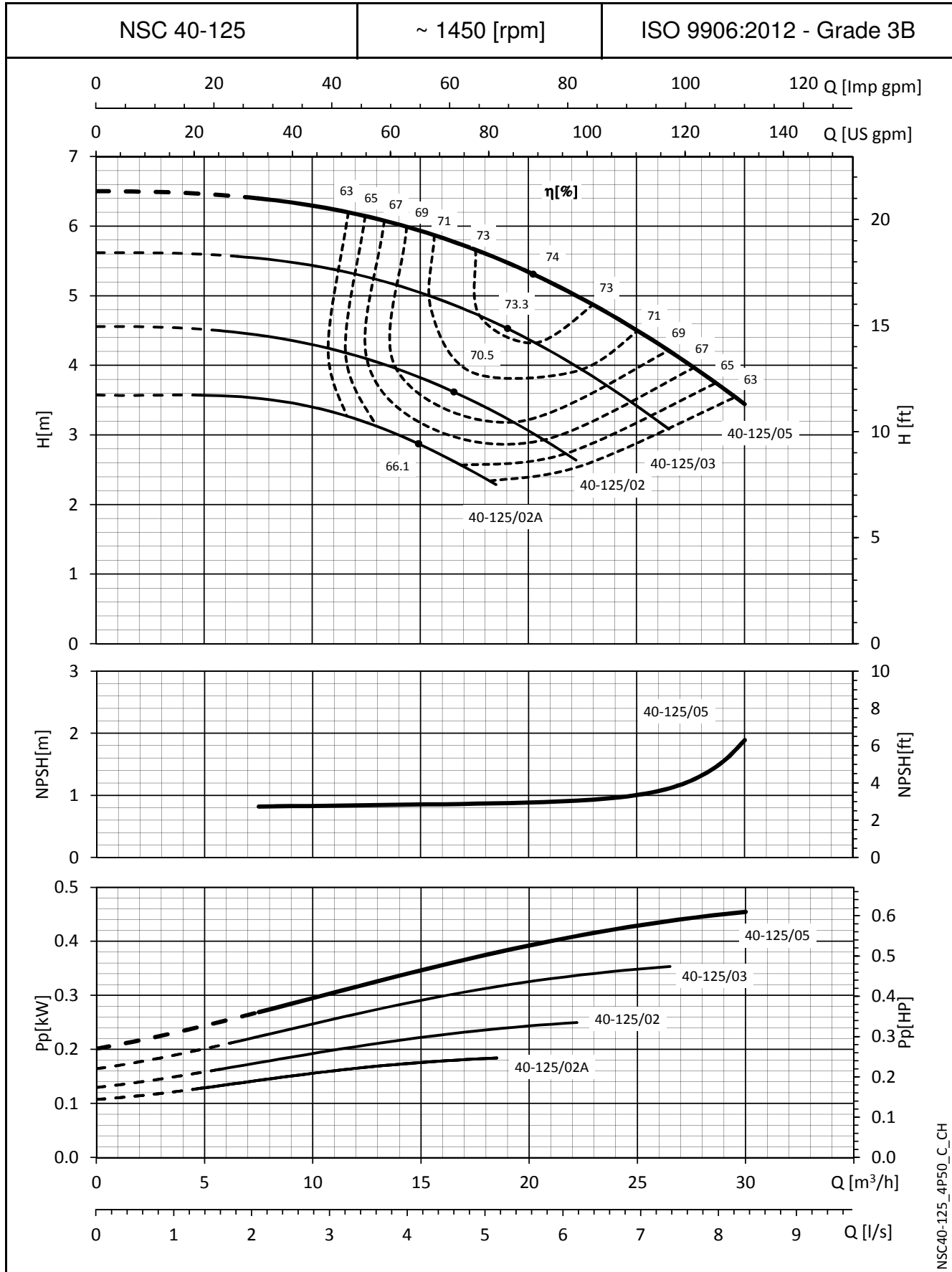
e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

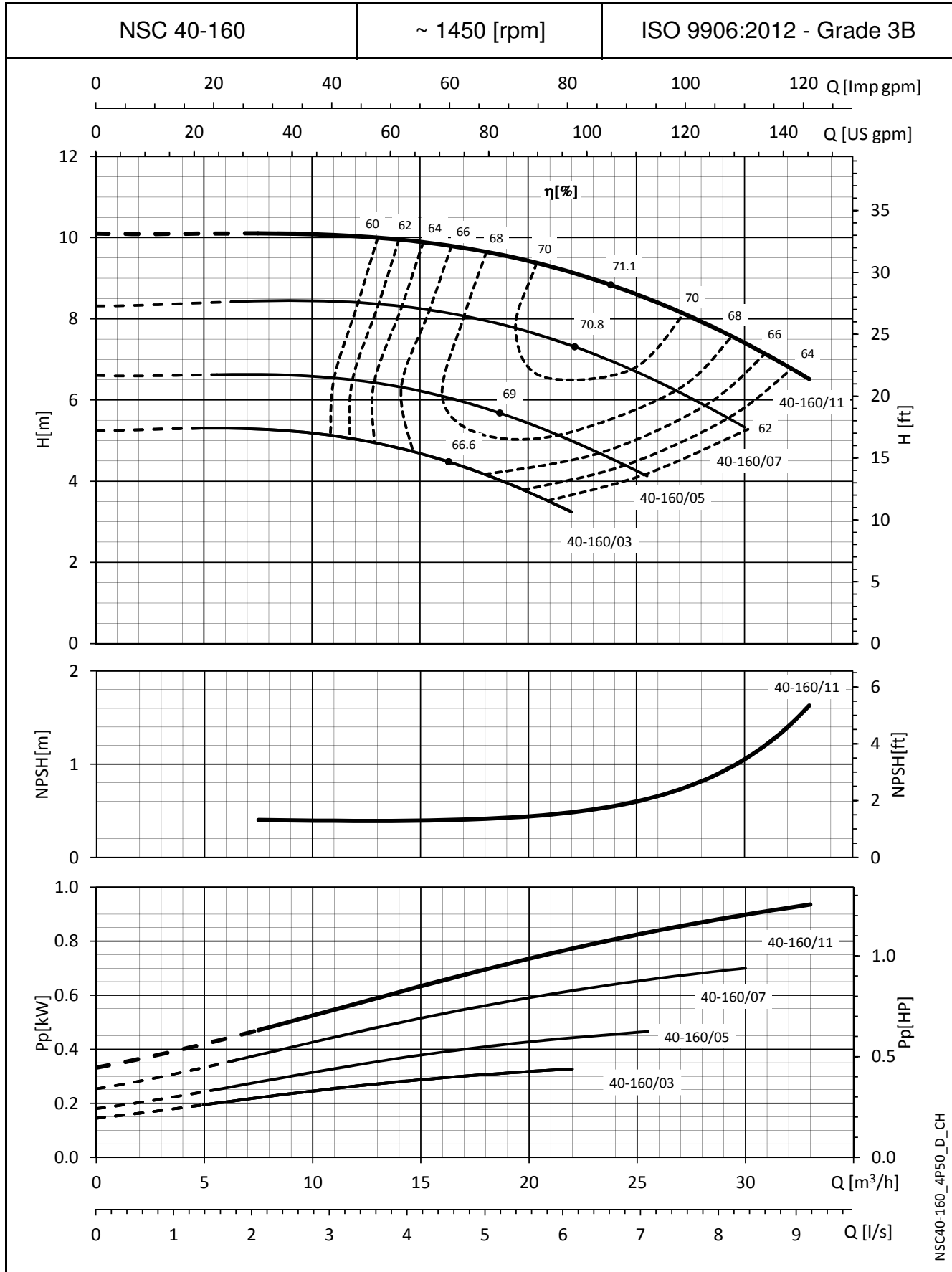
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



NSC40-125_4P50_C_CH

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

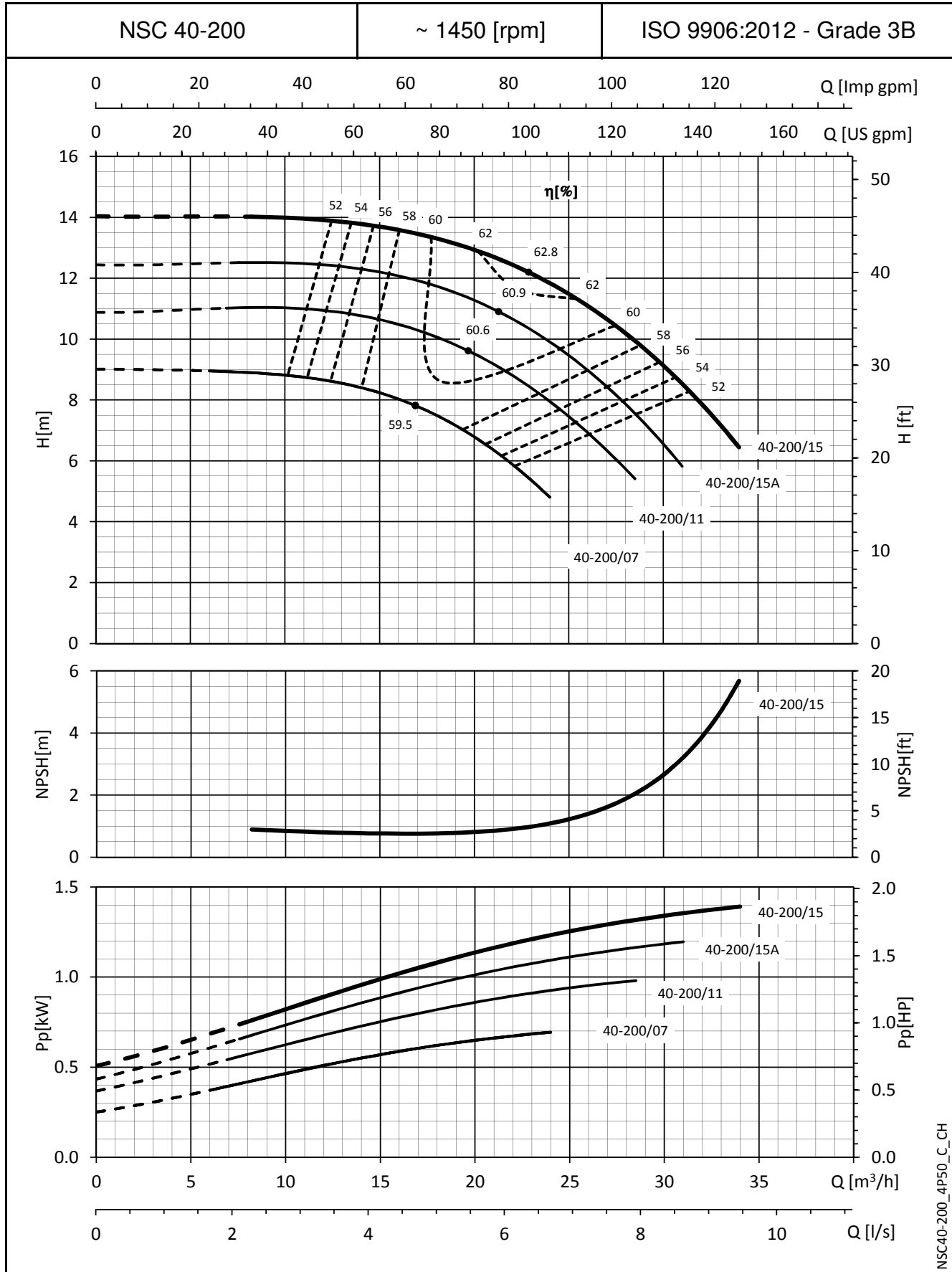
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



NSC40-160_4P50_D_CH

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

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

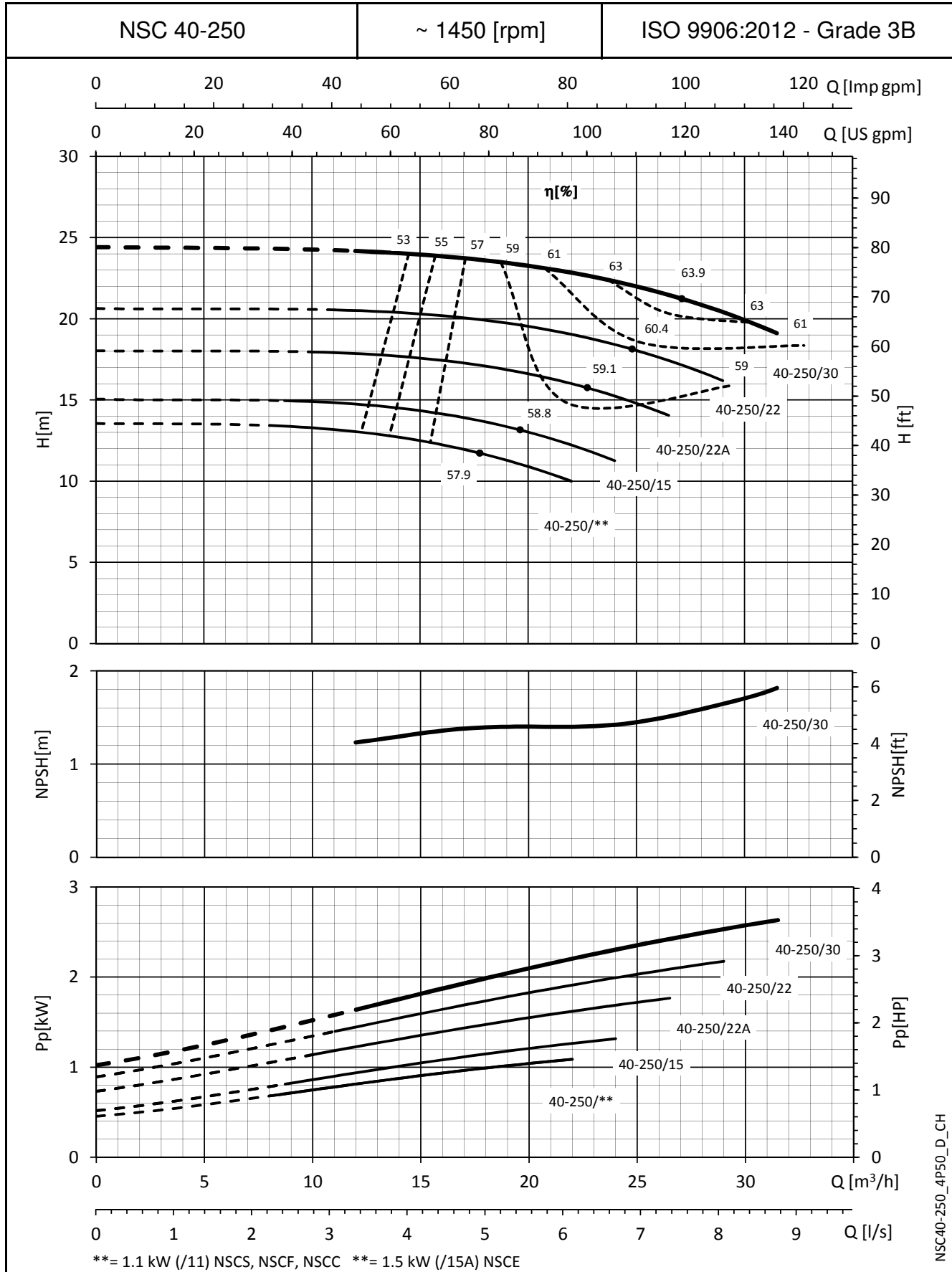


NSC40-200_4P50_C_CH

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

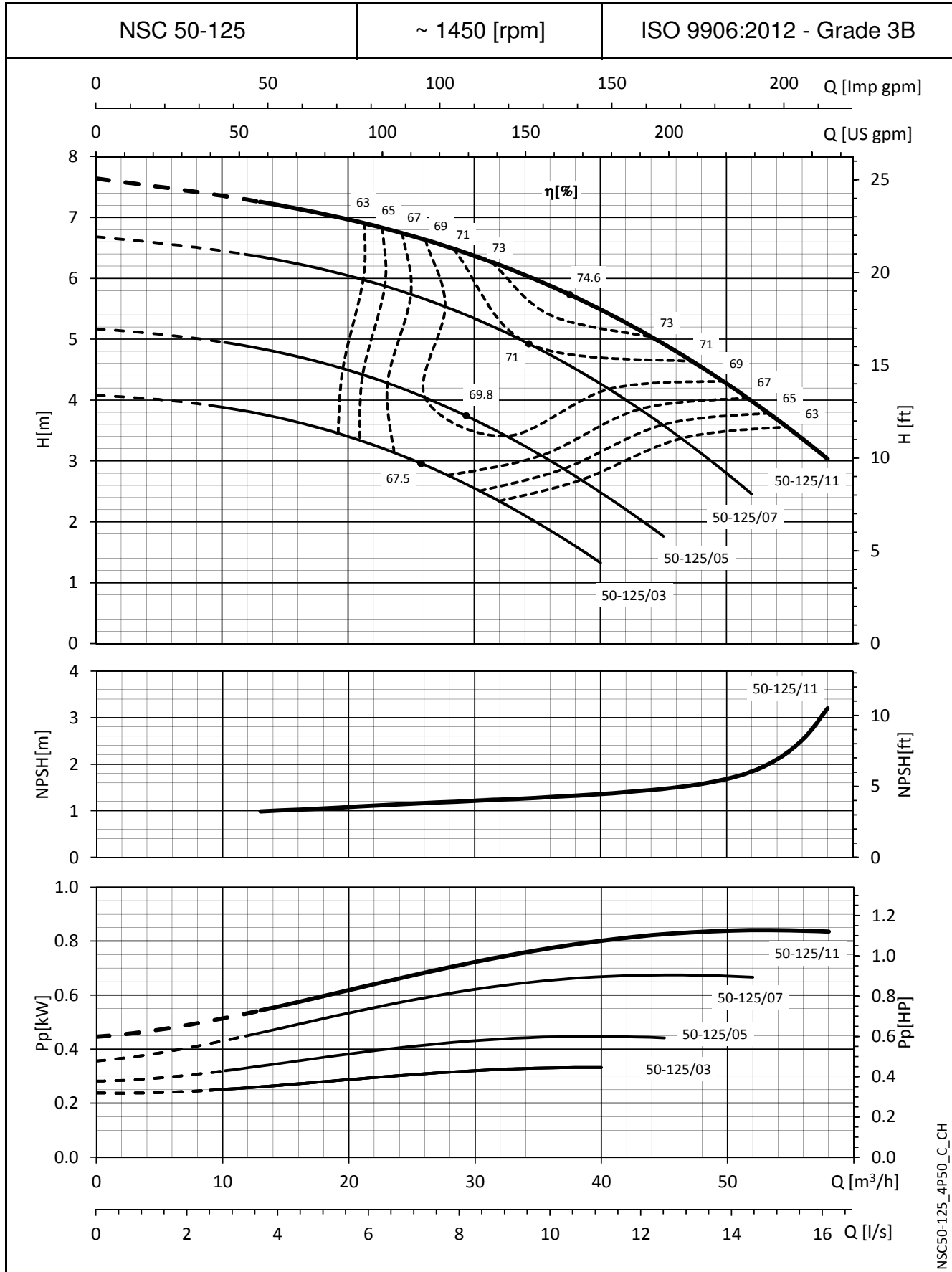
e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

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

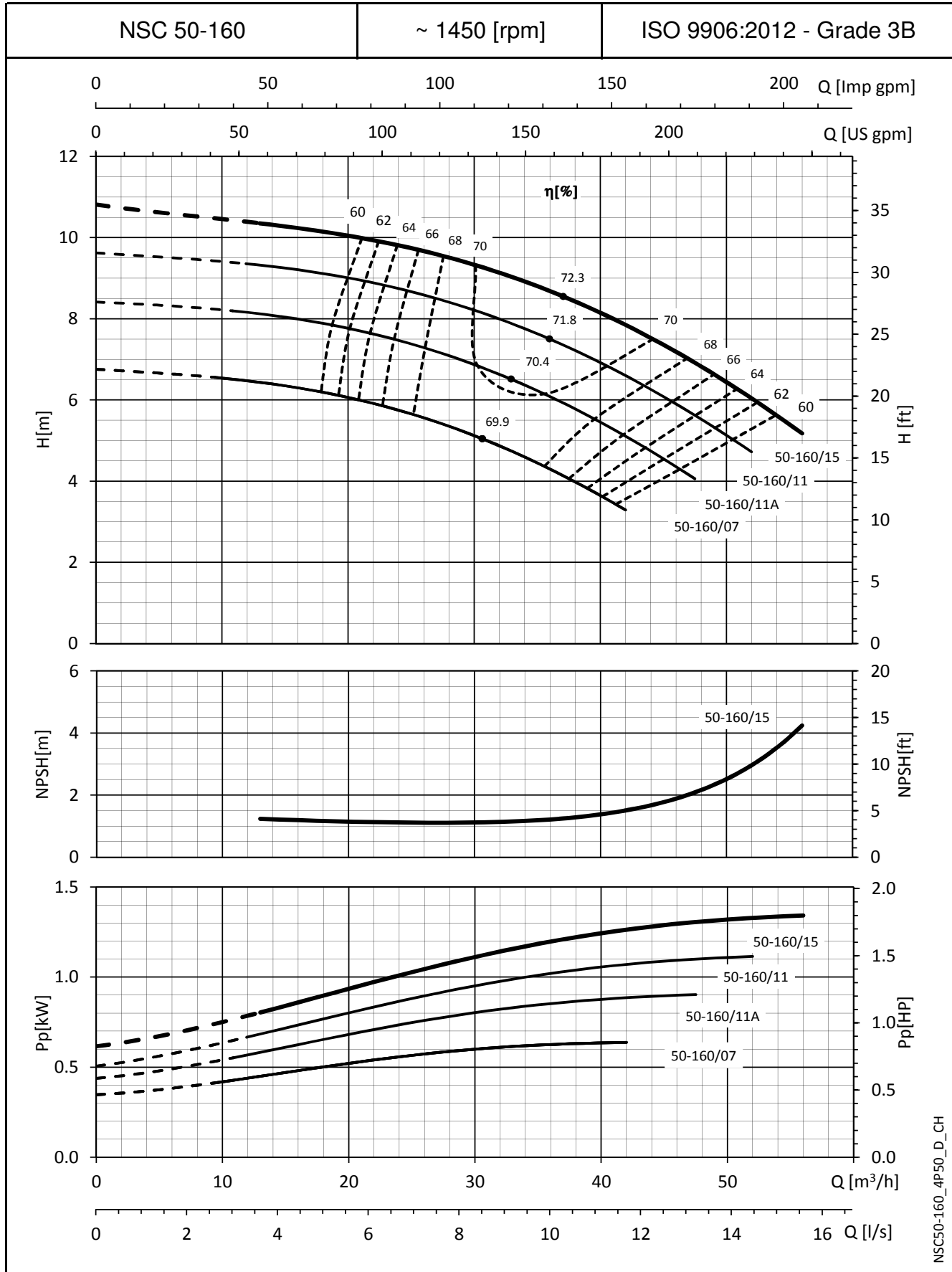


NSC50-125_4P50_C_CH

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

e-NSC SERIES

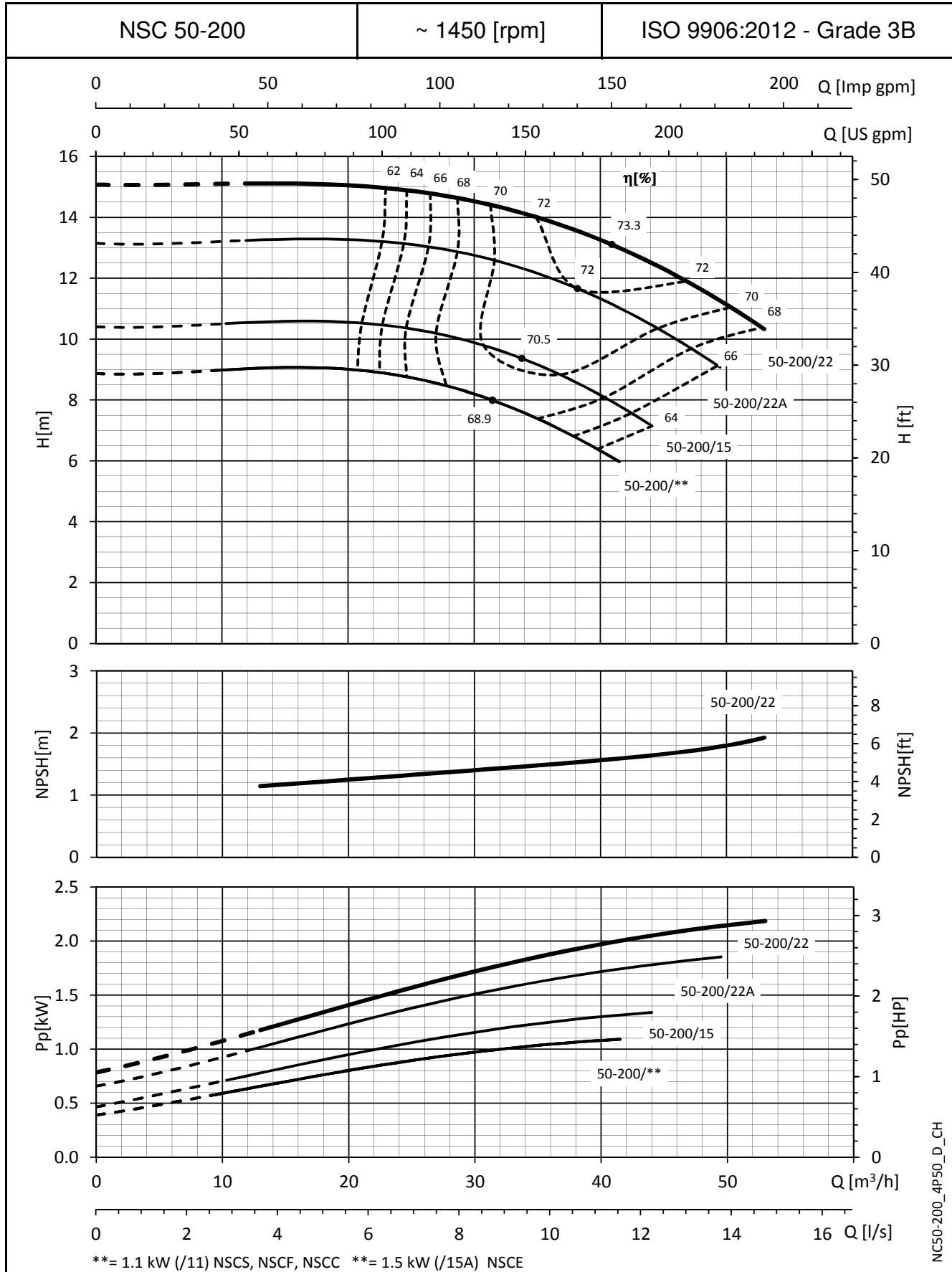
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



NSC50-160_4P50_D_CH

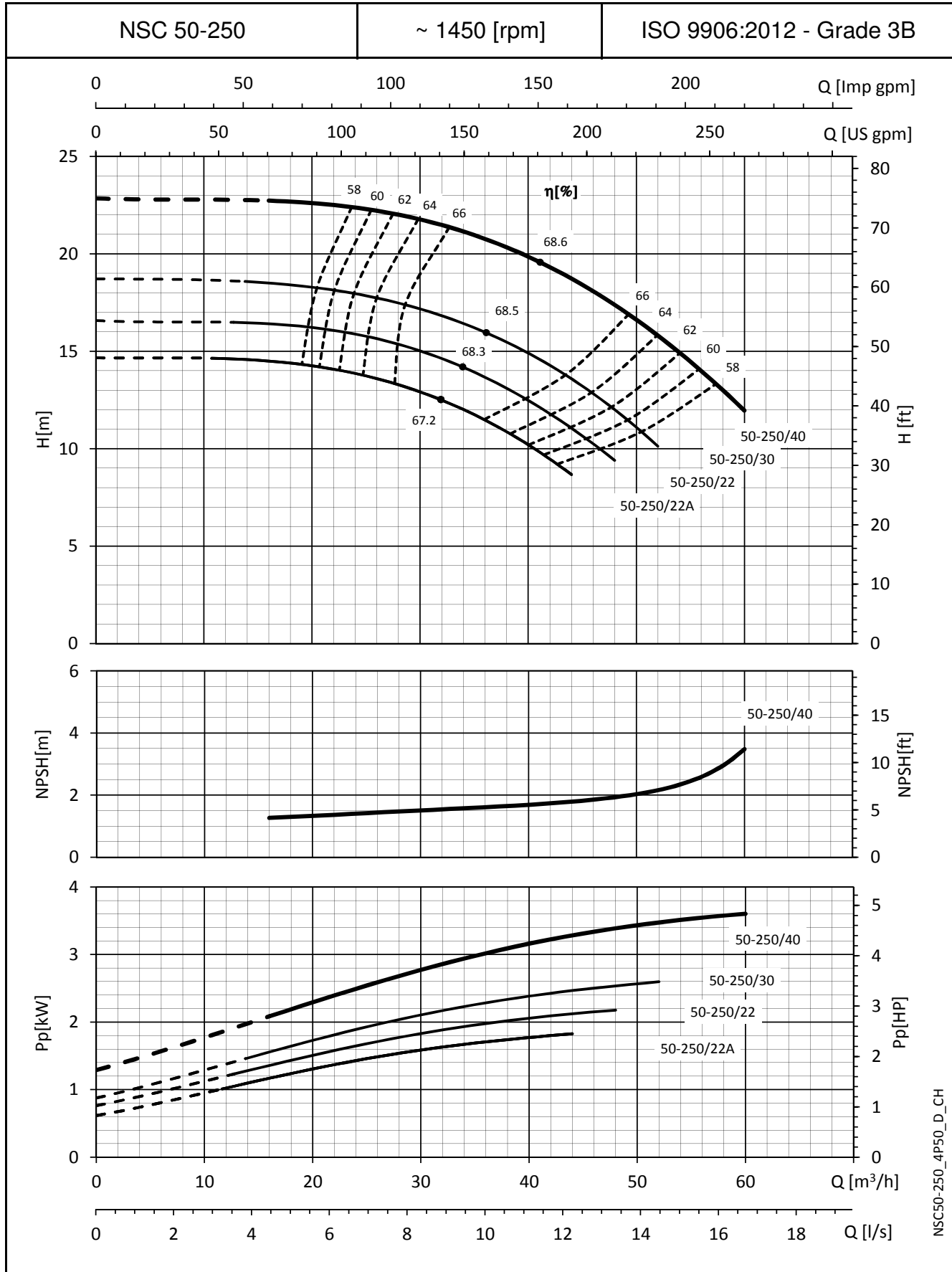
The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

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



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

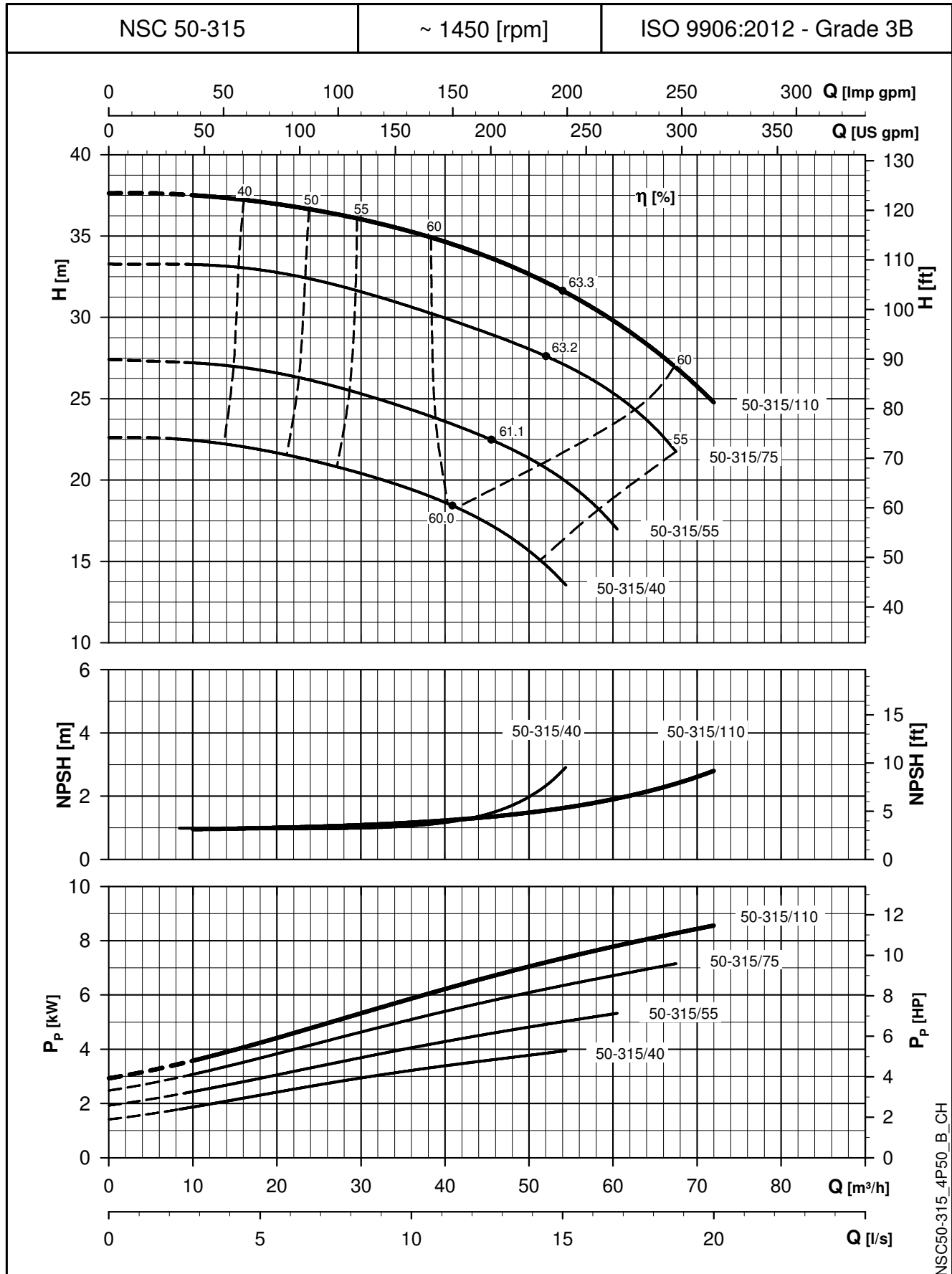
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



NSC50-250_4P50_D_CH

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

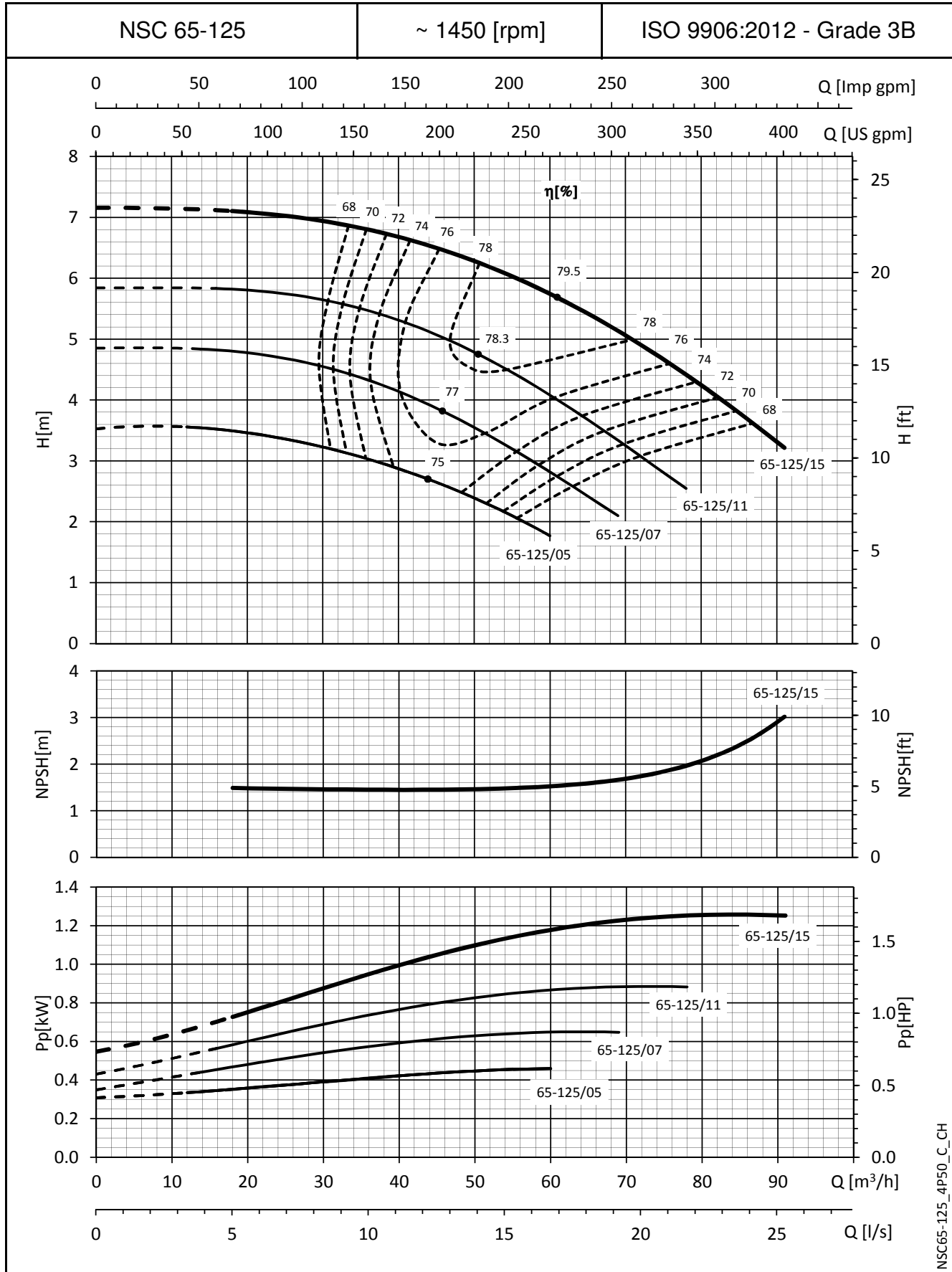
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



NSC50-315_4P50_B_CH

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

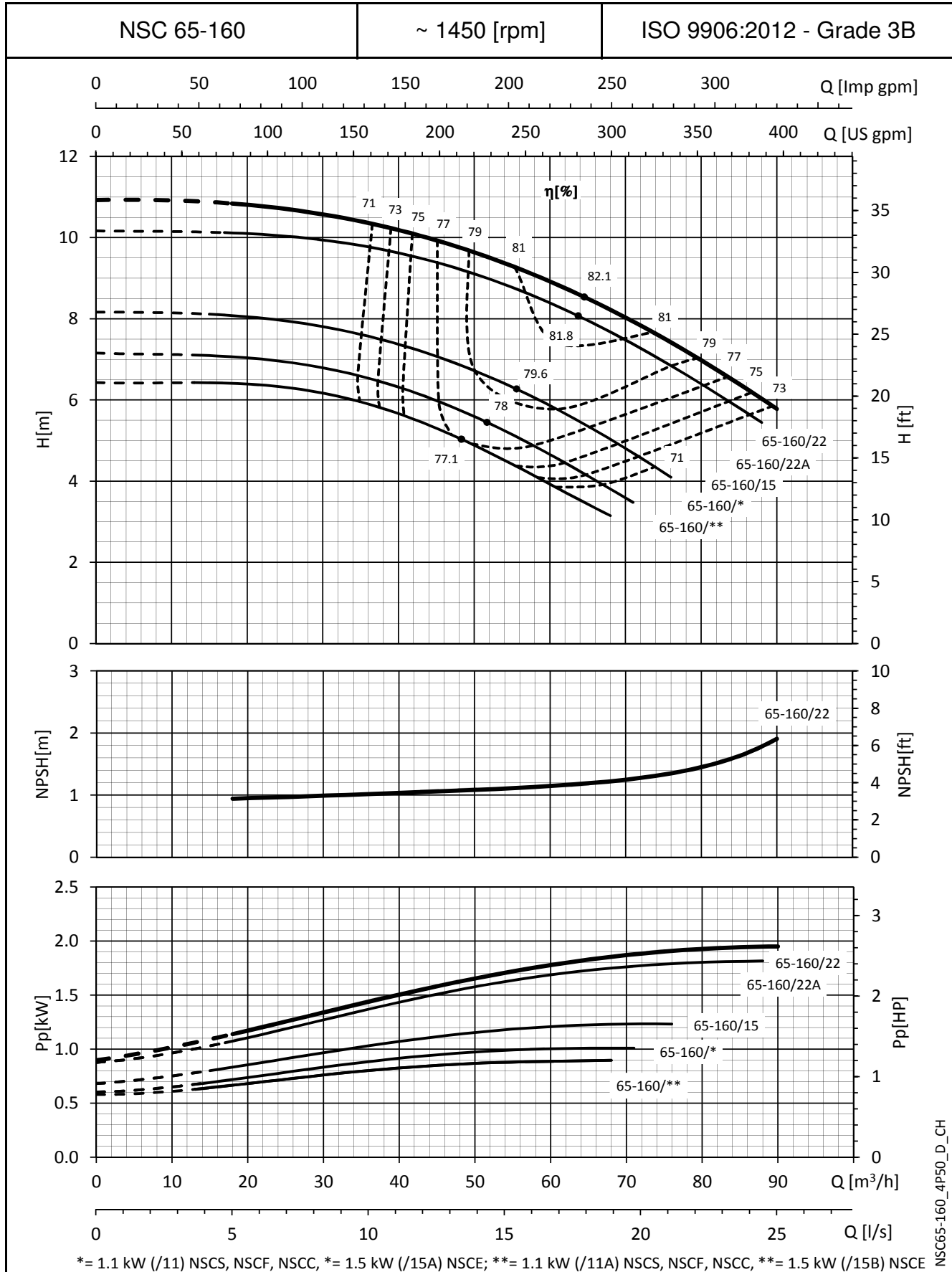
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



NSC65-125_4P50_C_CH

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

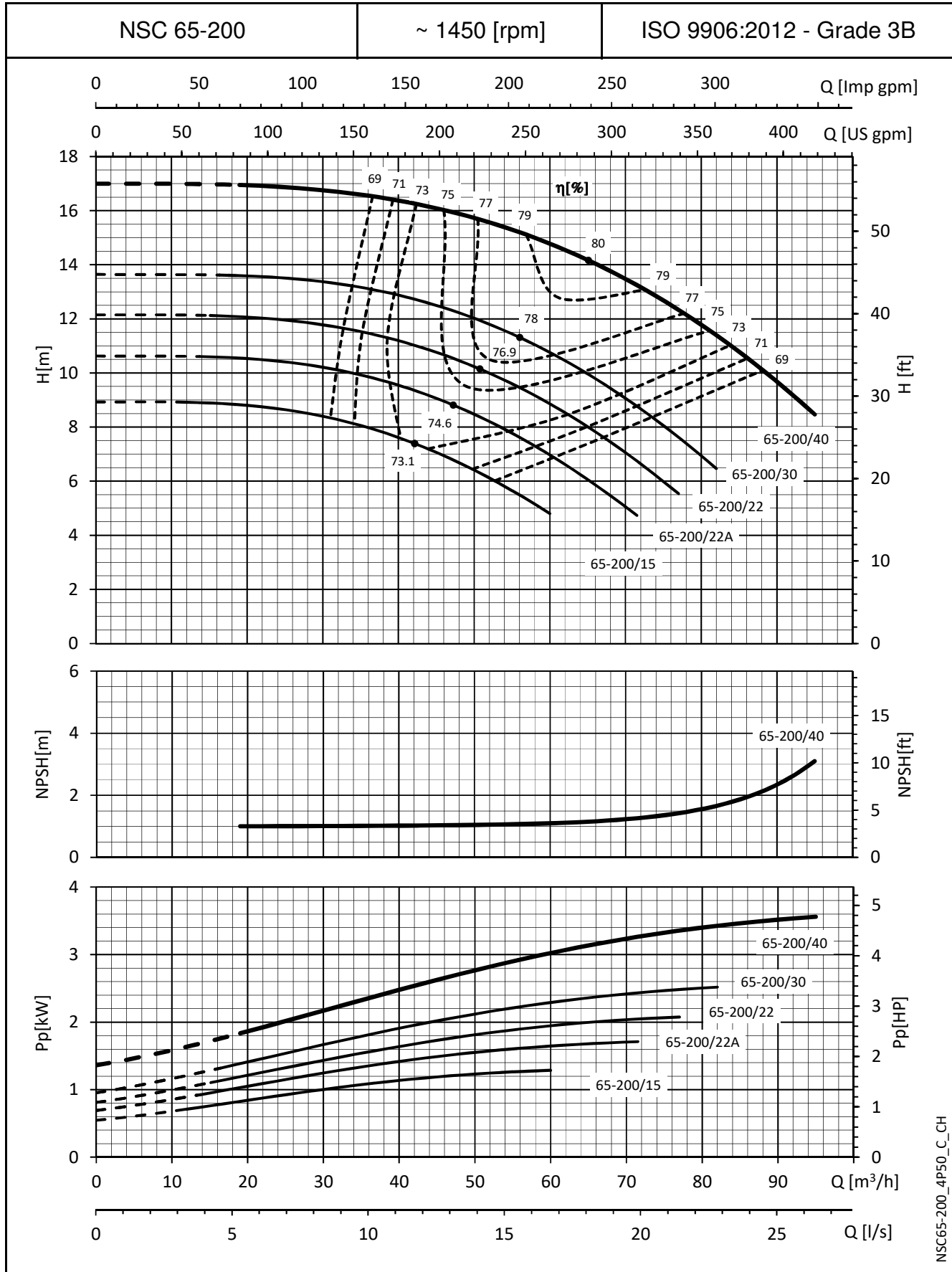
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



*= 1.1 kW (/11) NSCS, NSCF, NSCC, *= 1.5 kW (/15A) NSCE; **= 1.1 kW (/11A) NSCS, NSCF, NSCC, **= 1.5 kW (/15B) NSCE

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

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

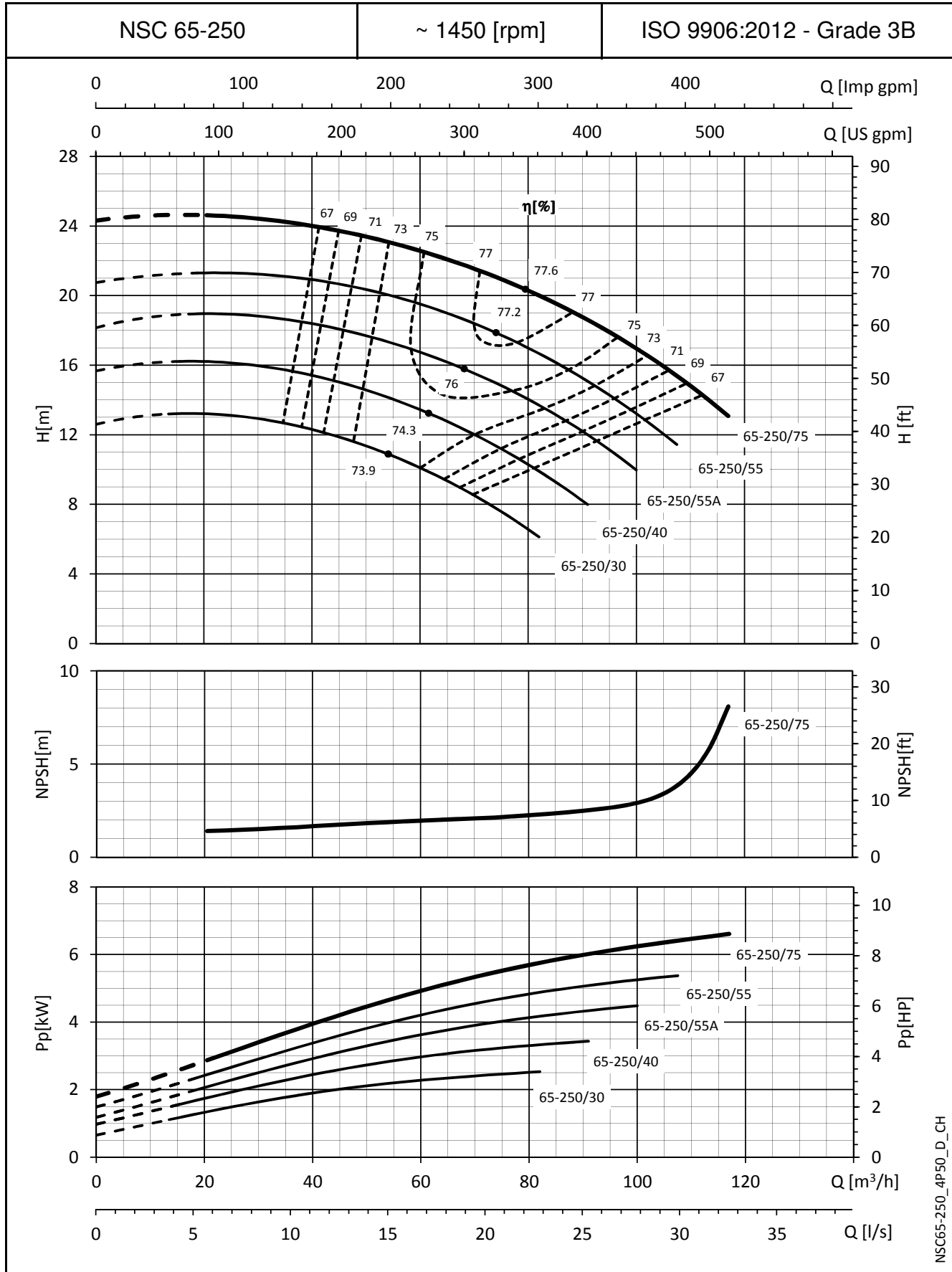


NSC65-200_4P50_C_CH

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

e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

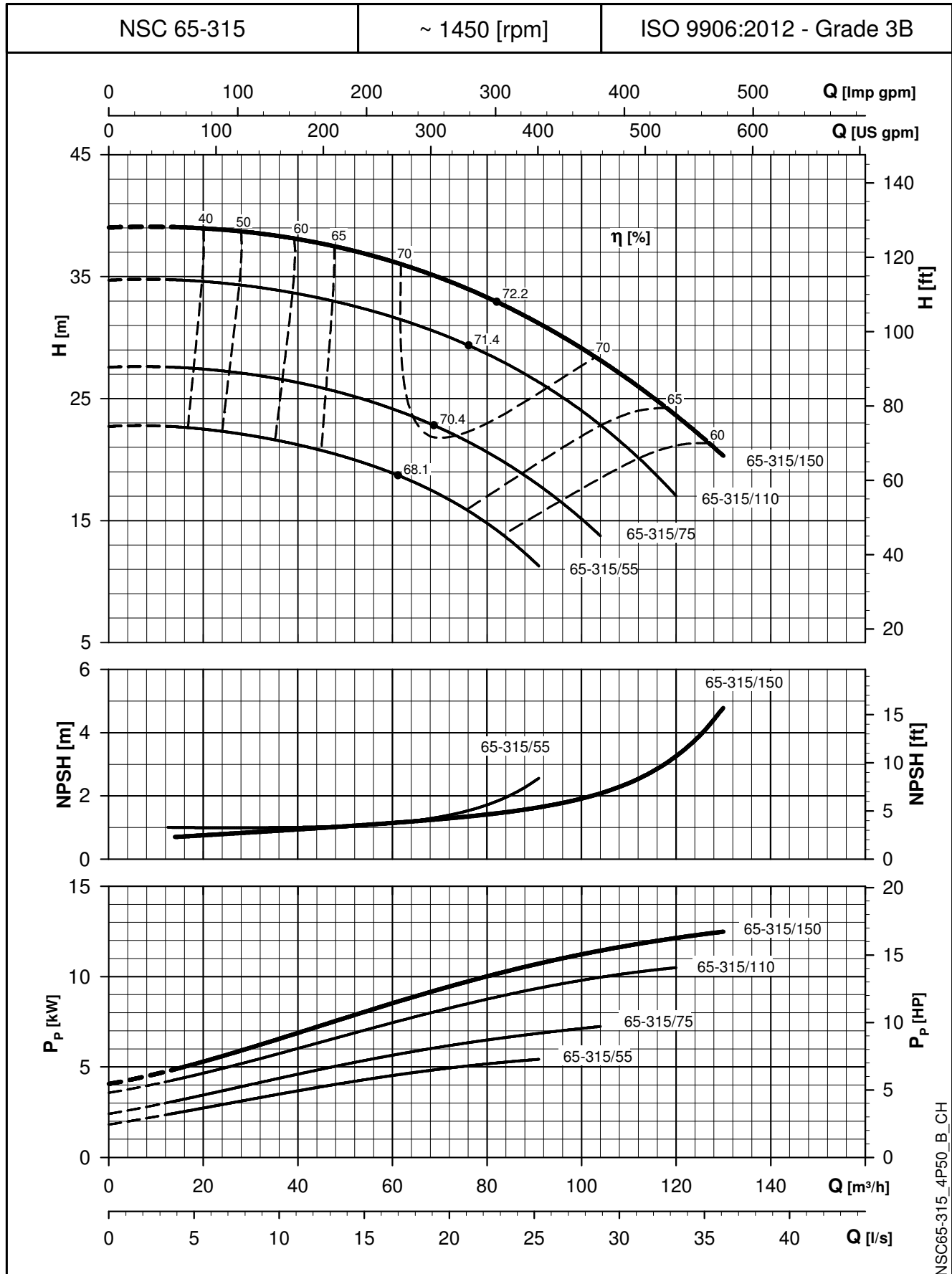


NSC65-250_4P50_D_CH

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

e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

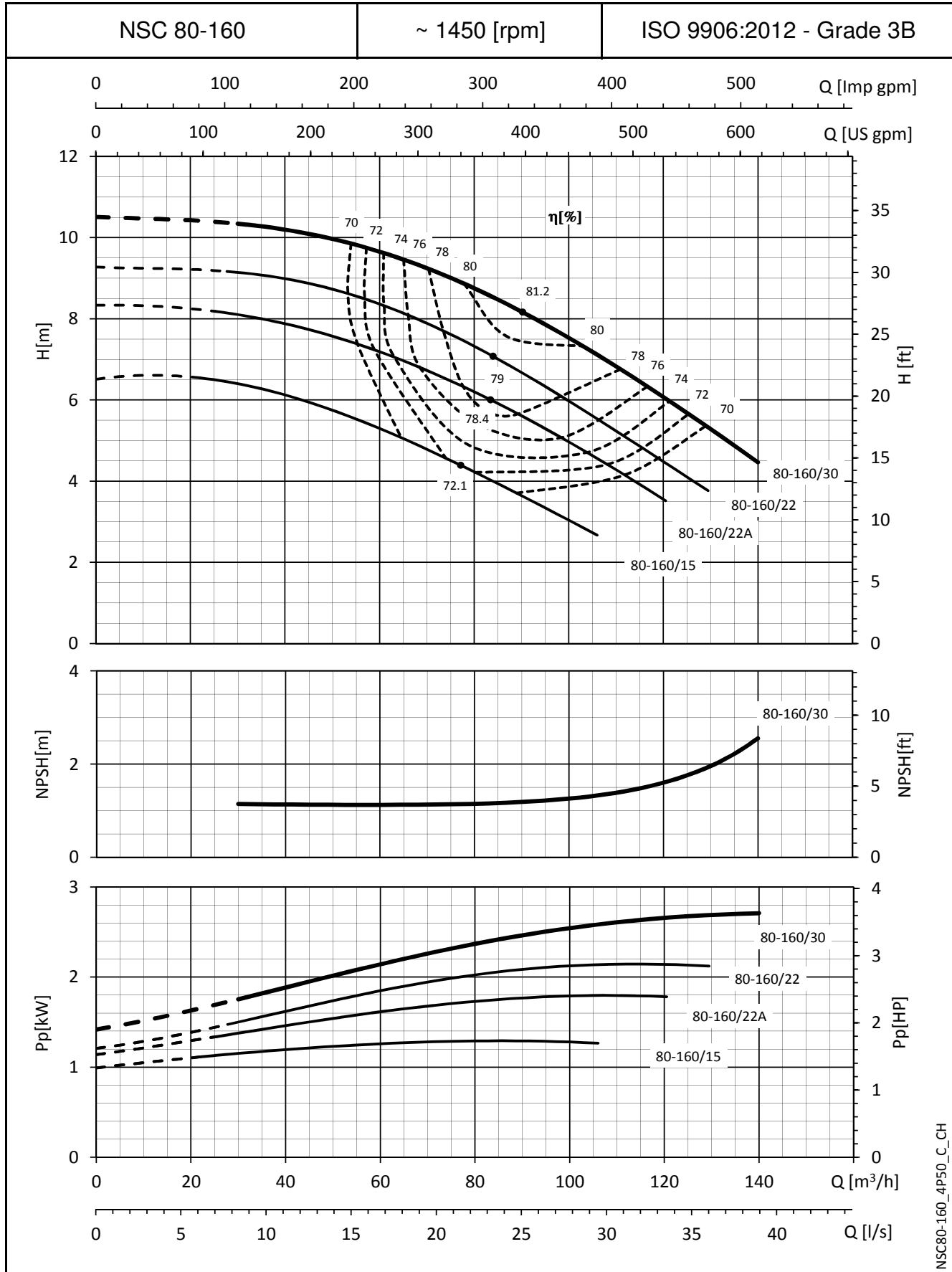


NSC65-315_4P50_B_CH

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

e-NSC SERIES

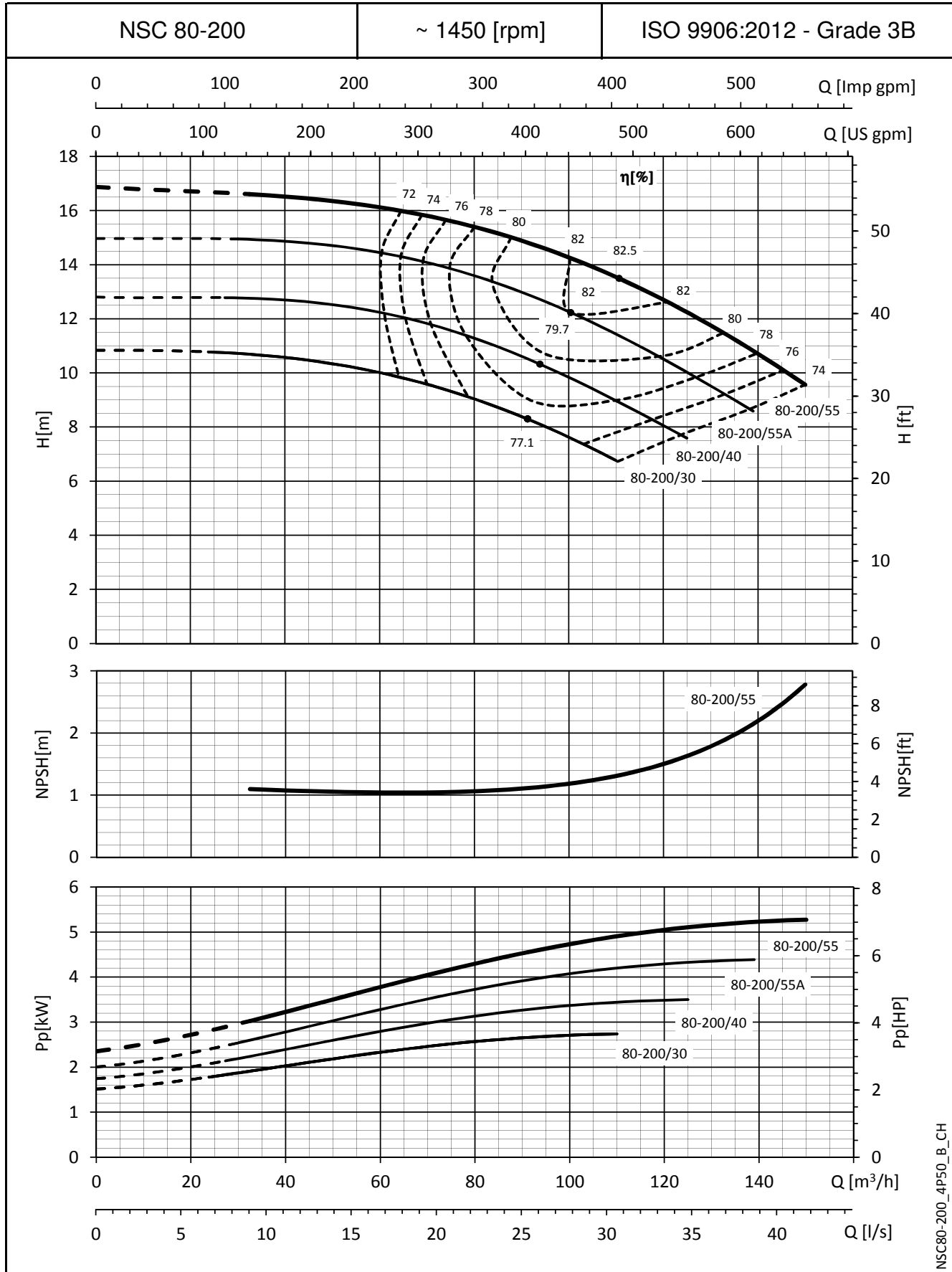
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



NSC80-160_4P50_C_CH

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

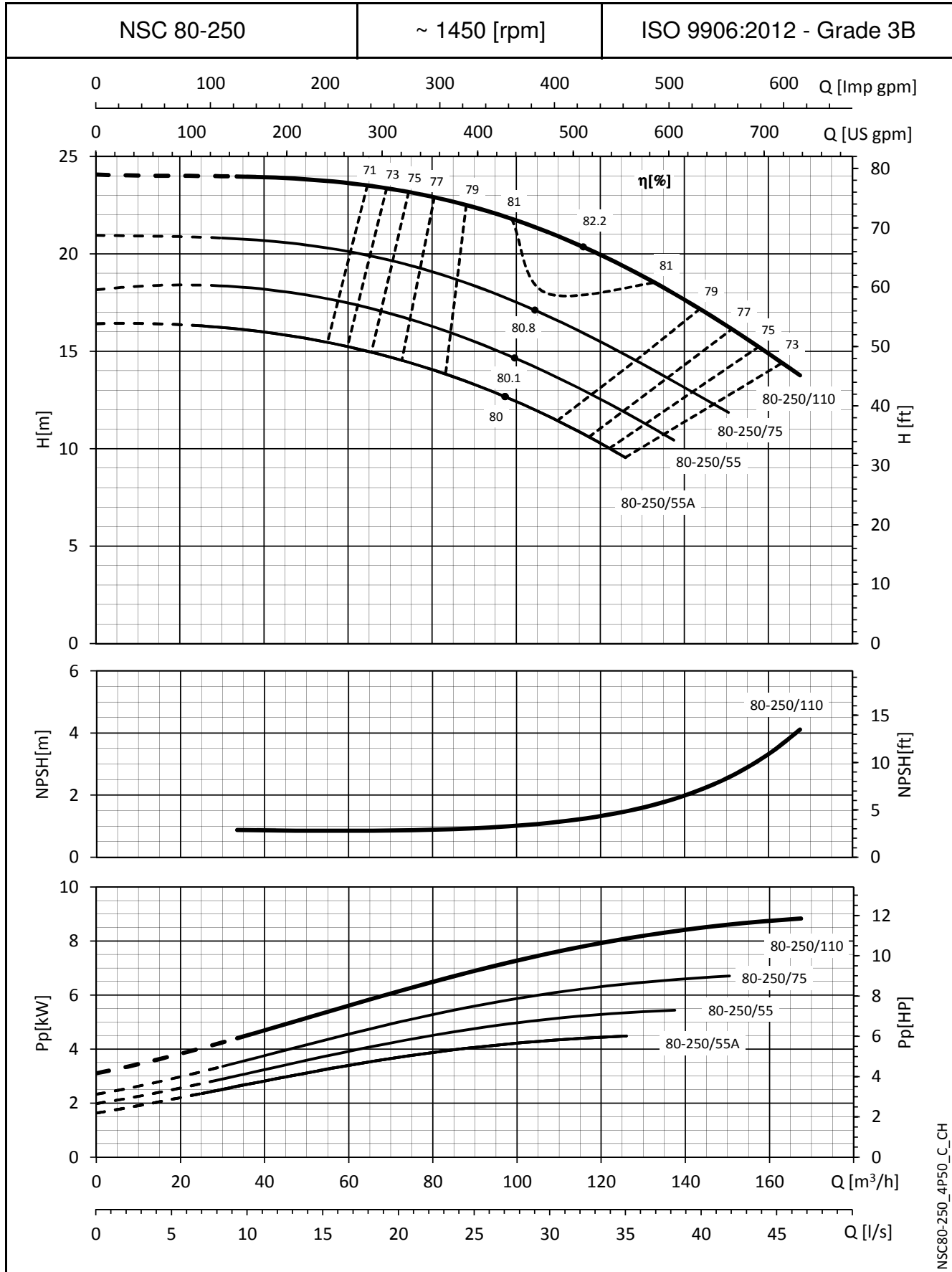
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



NSC80-200_4P50_B_CH

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

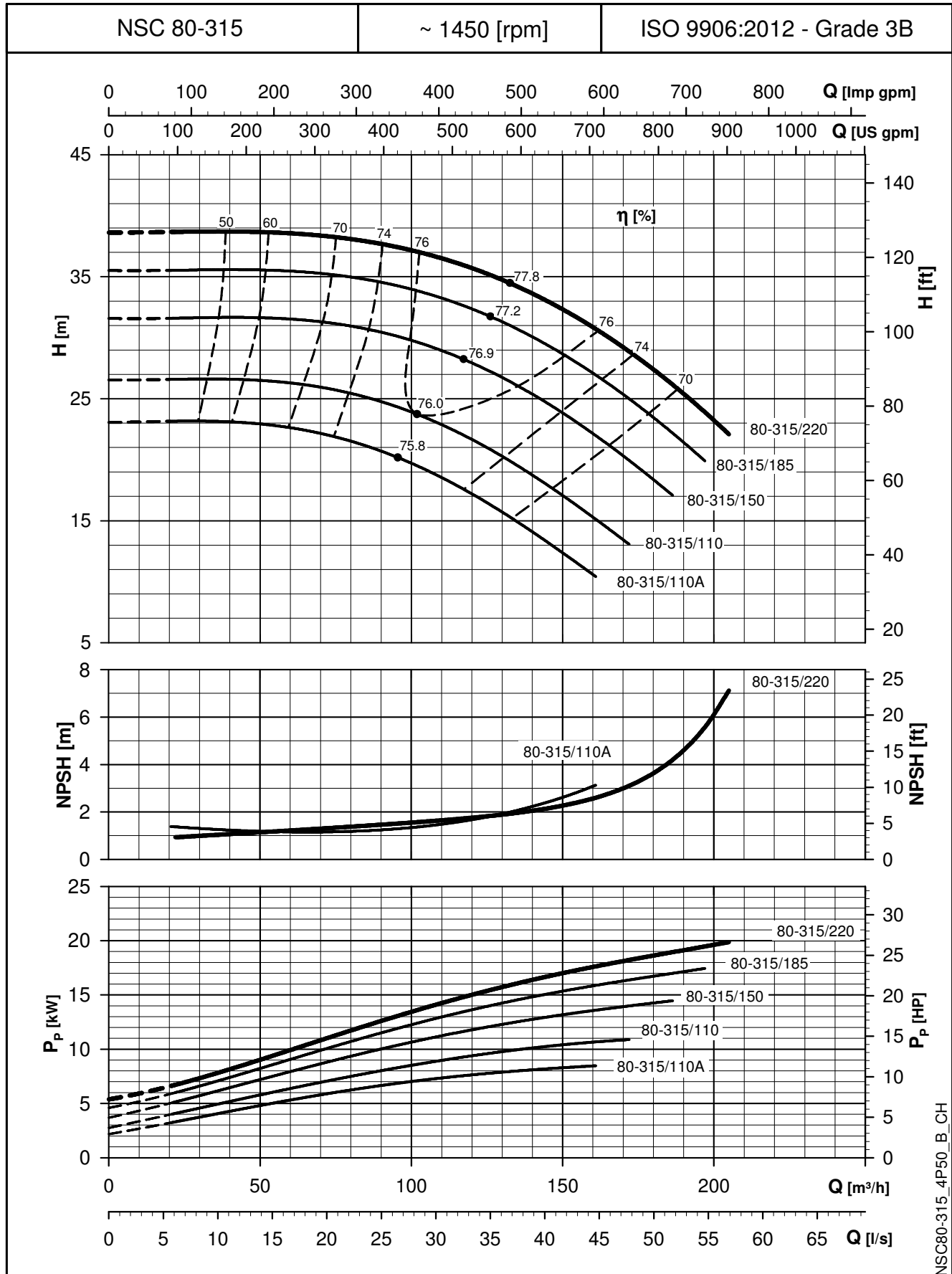
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



NSC80-250_4P50_C_CH

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

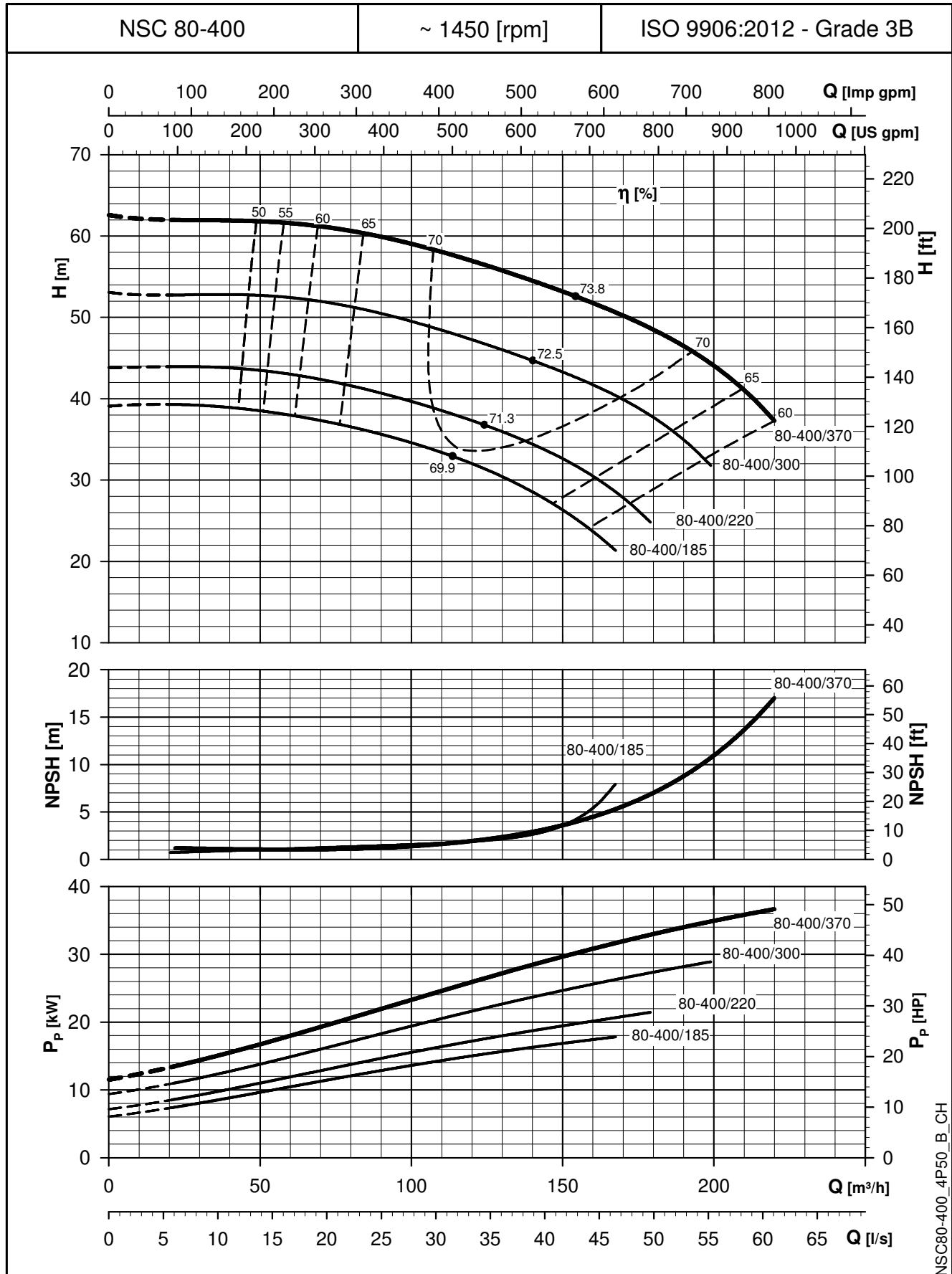
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

e-NSC SERIES

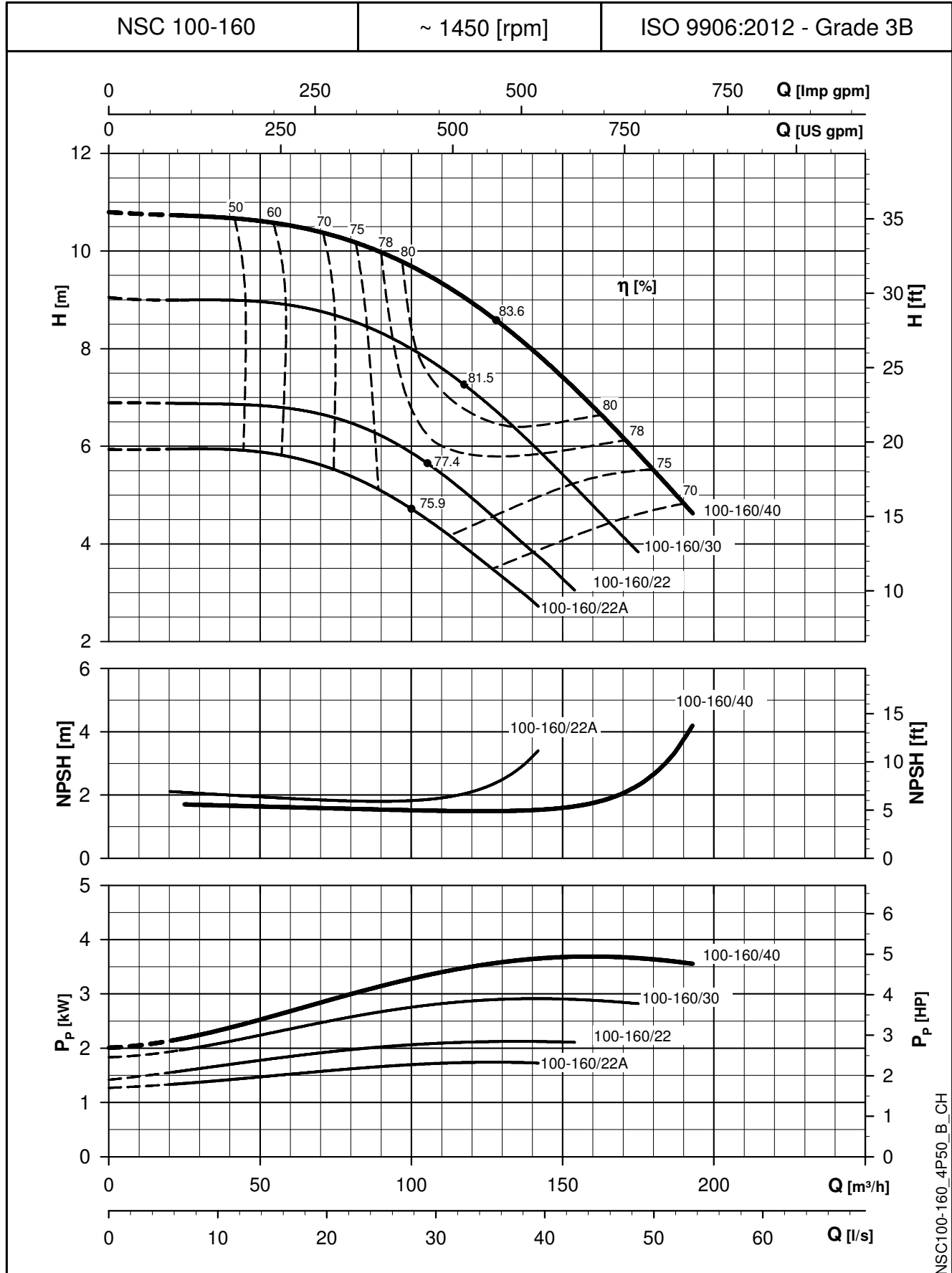
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

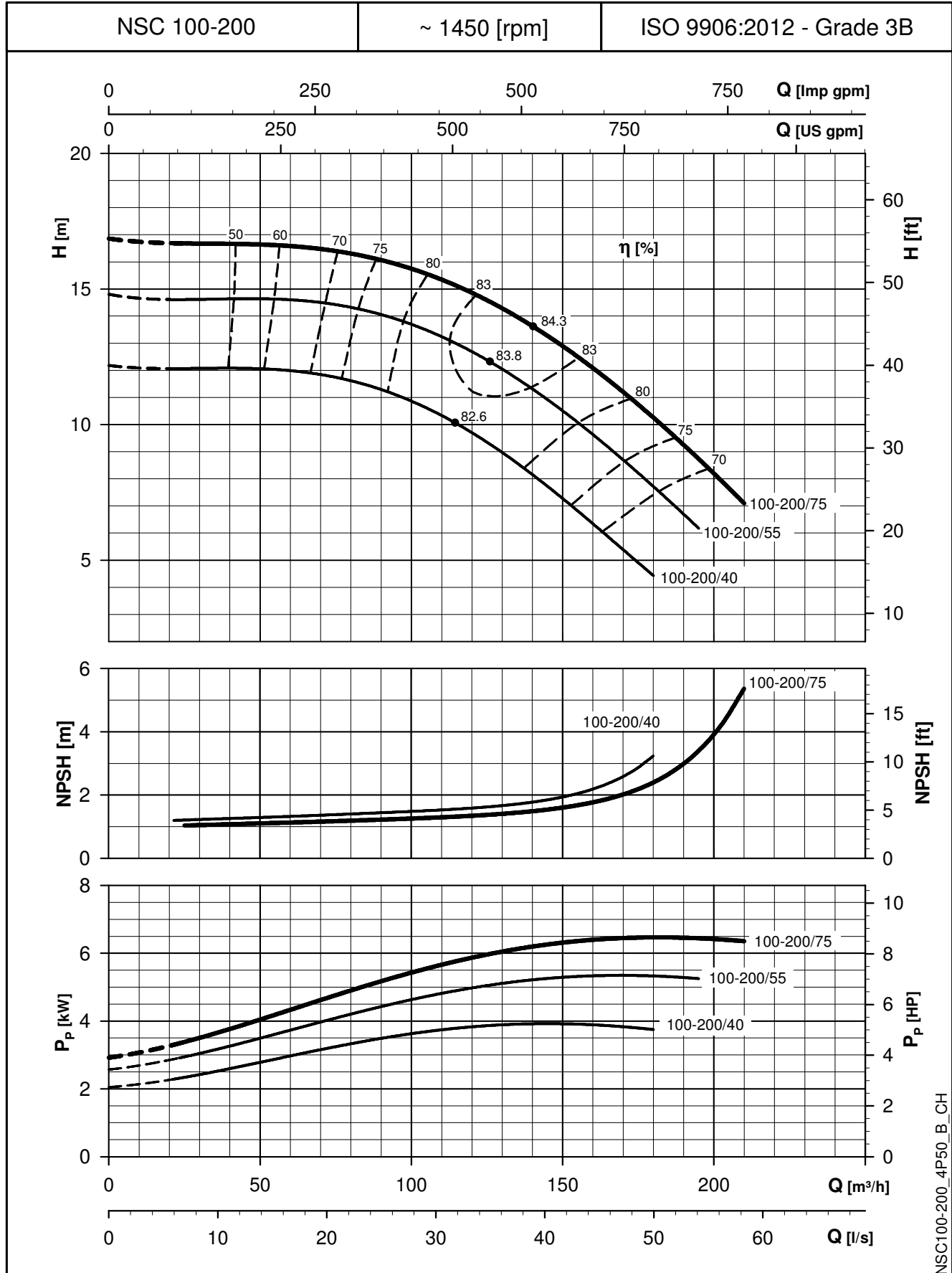


NSC100-160_4P50_B_CH

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

e-NSC SERIES

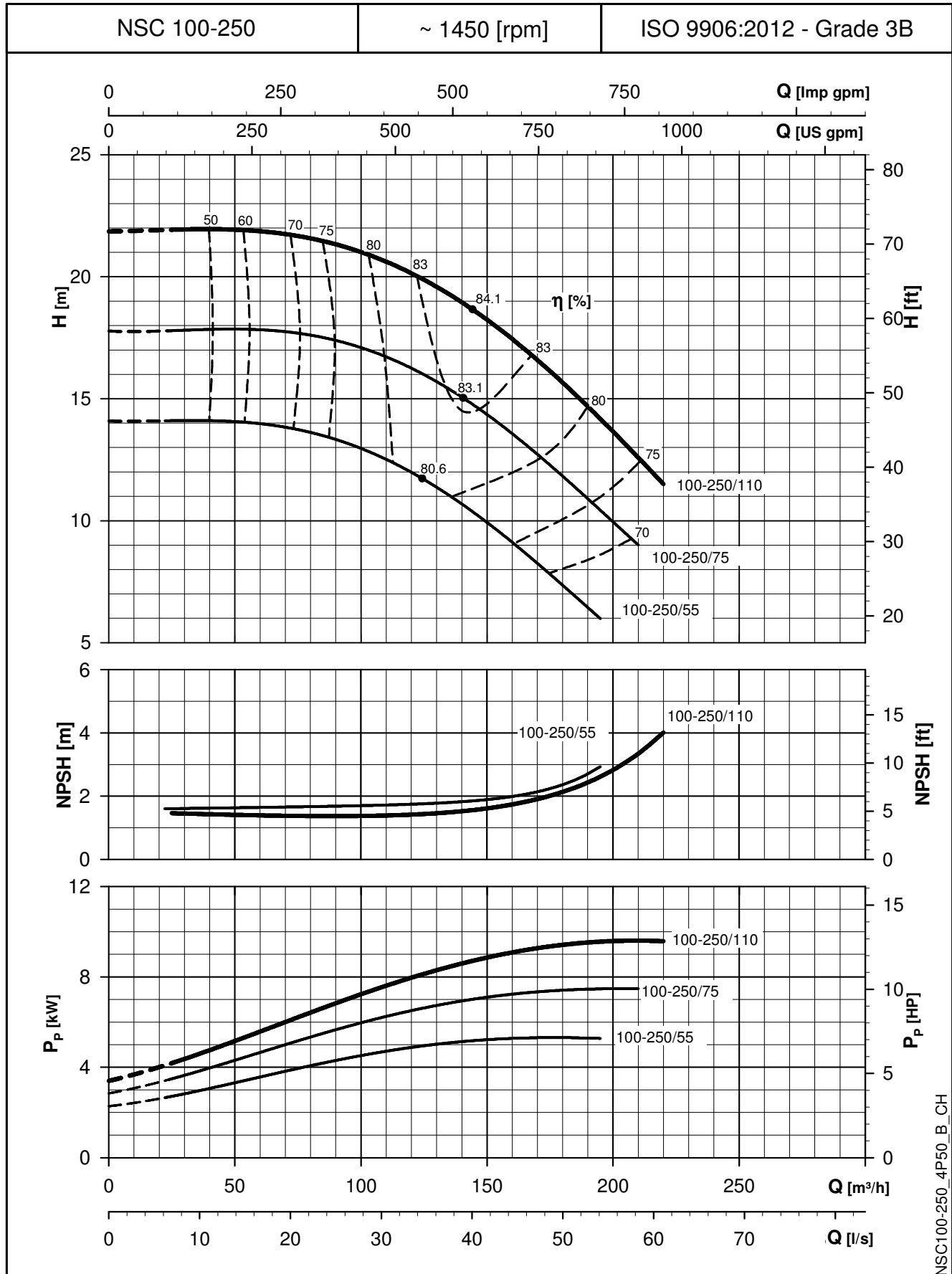
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

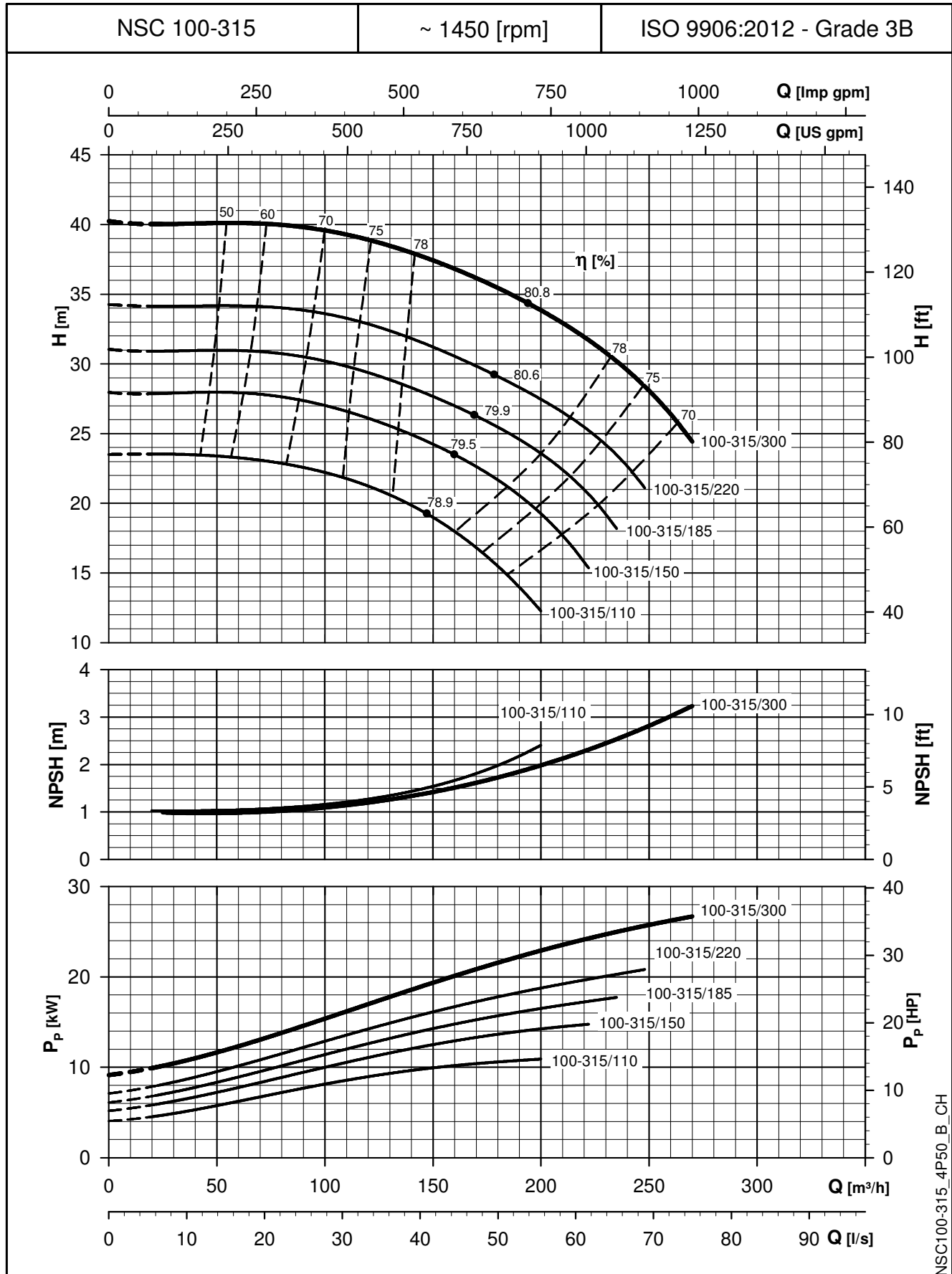


NSC100-250_4P50_B_CH

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

e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

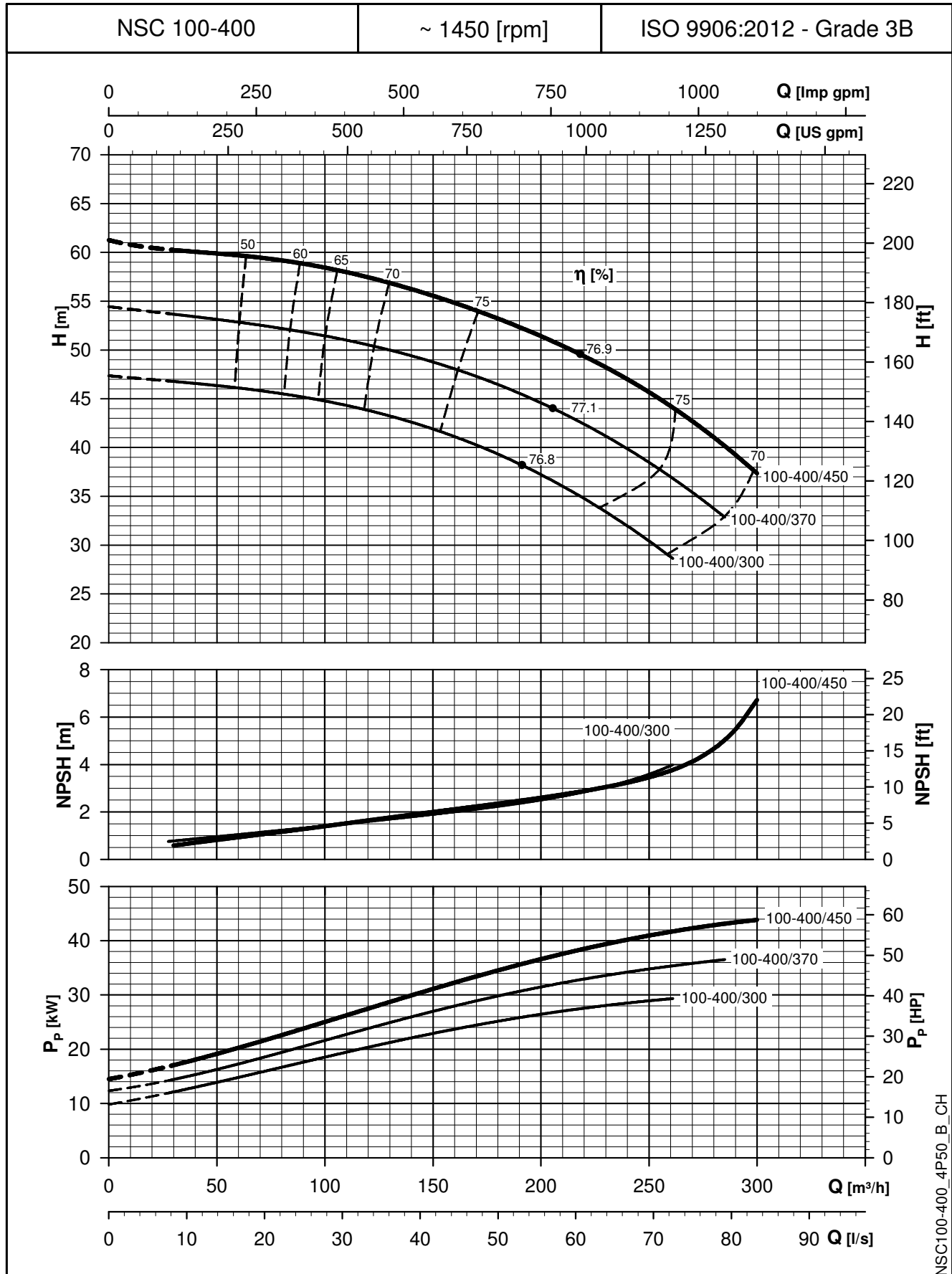


NSC100-315_4P50_B_CH

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

e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

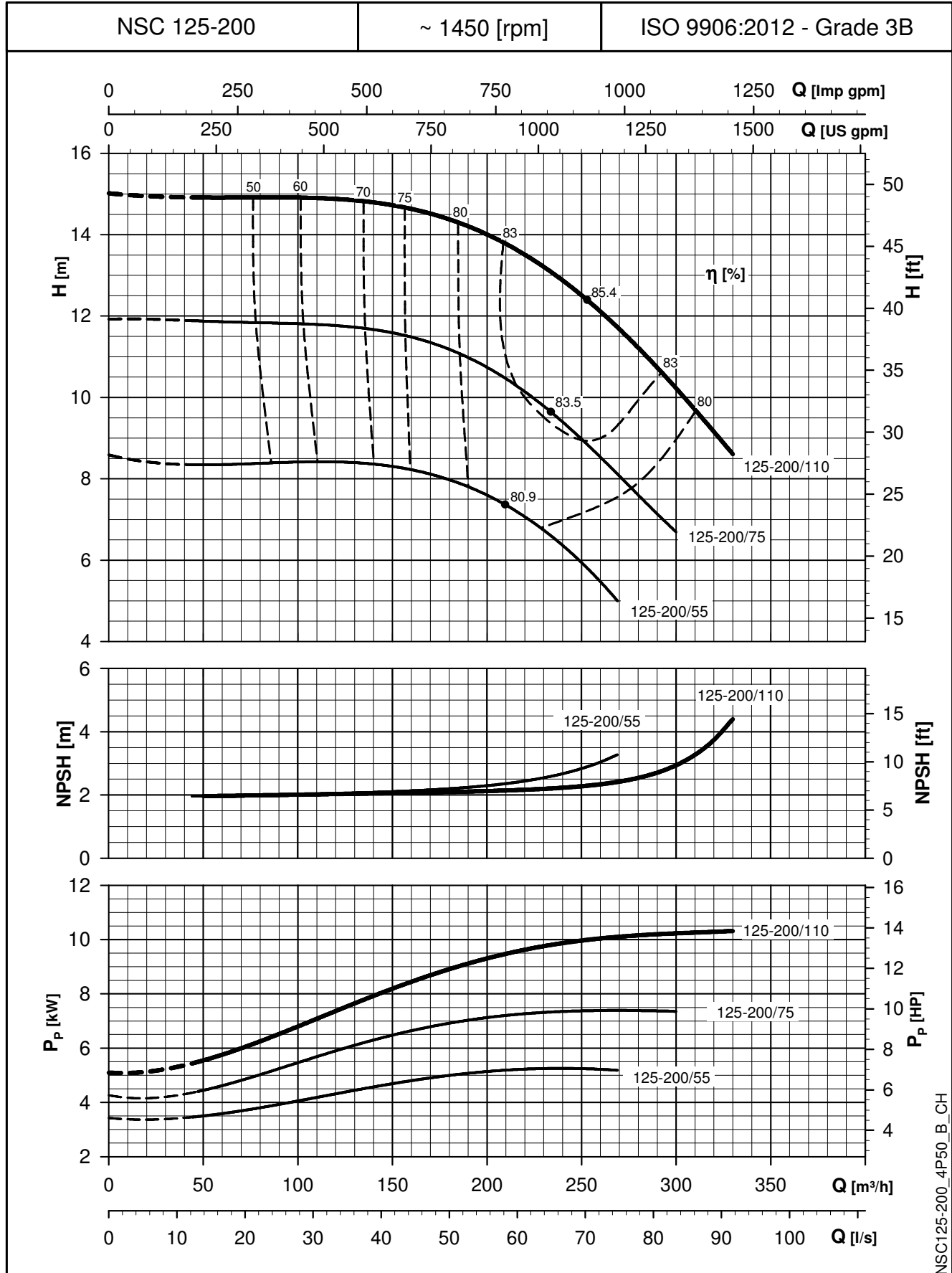


The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

NSC100-400_4P50_B_CH

e-NSC SERIES

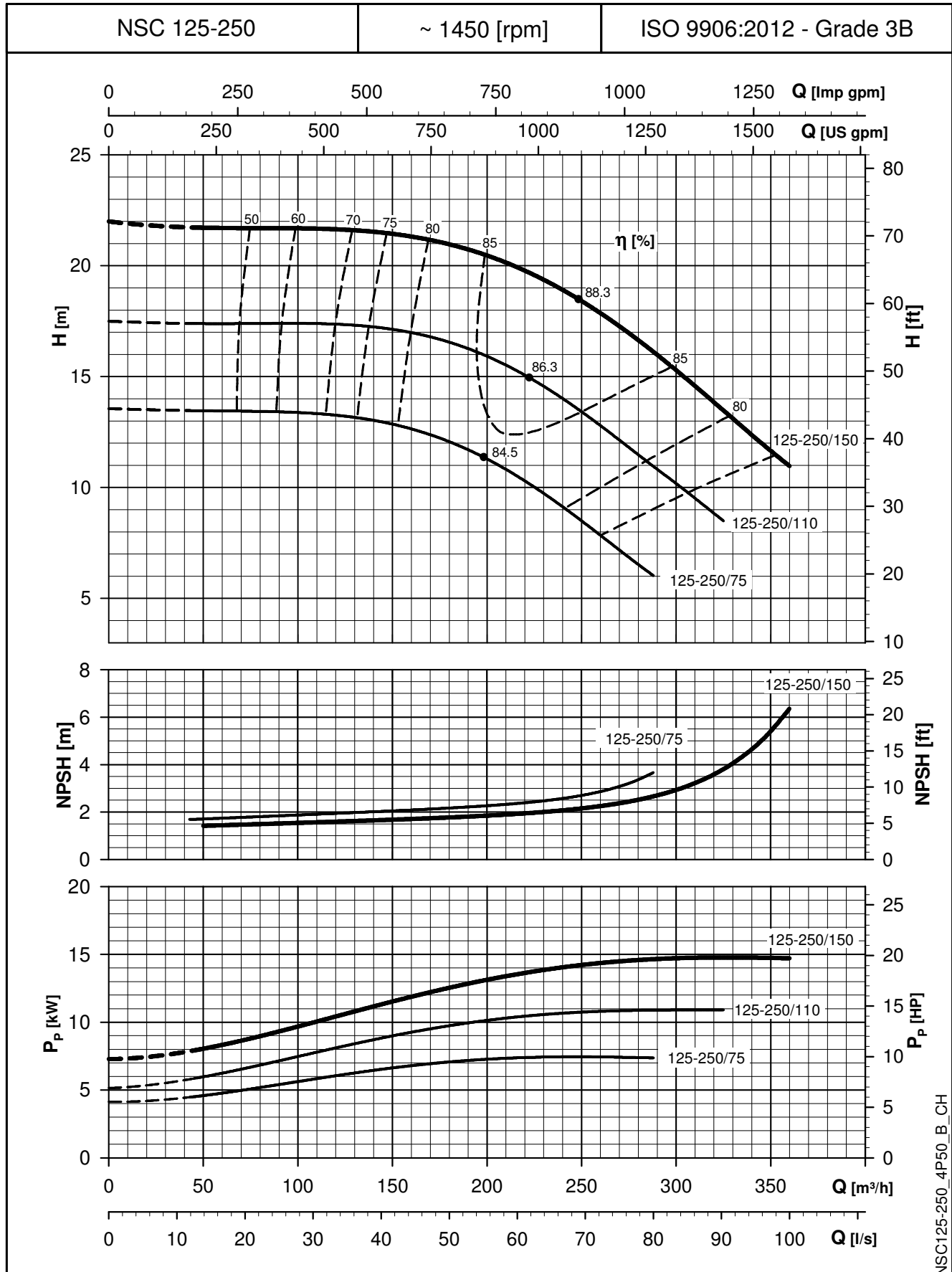
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



NSC125-200_4P50_B_CH

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

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

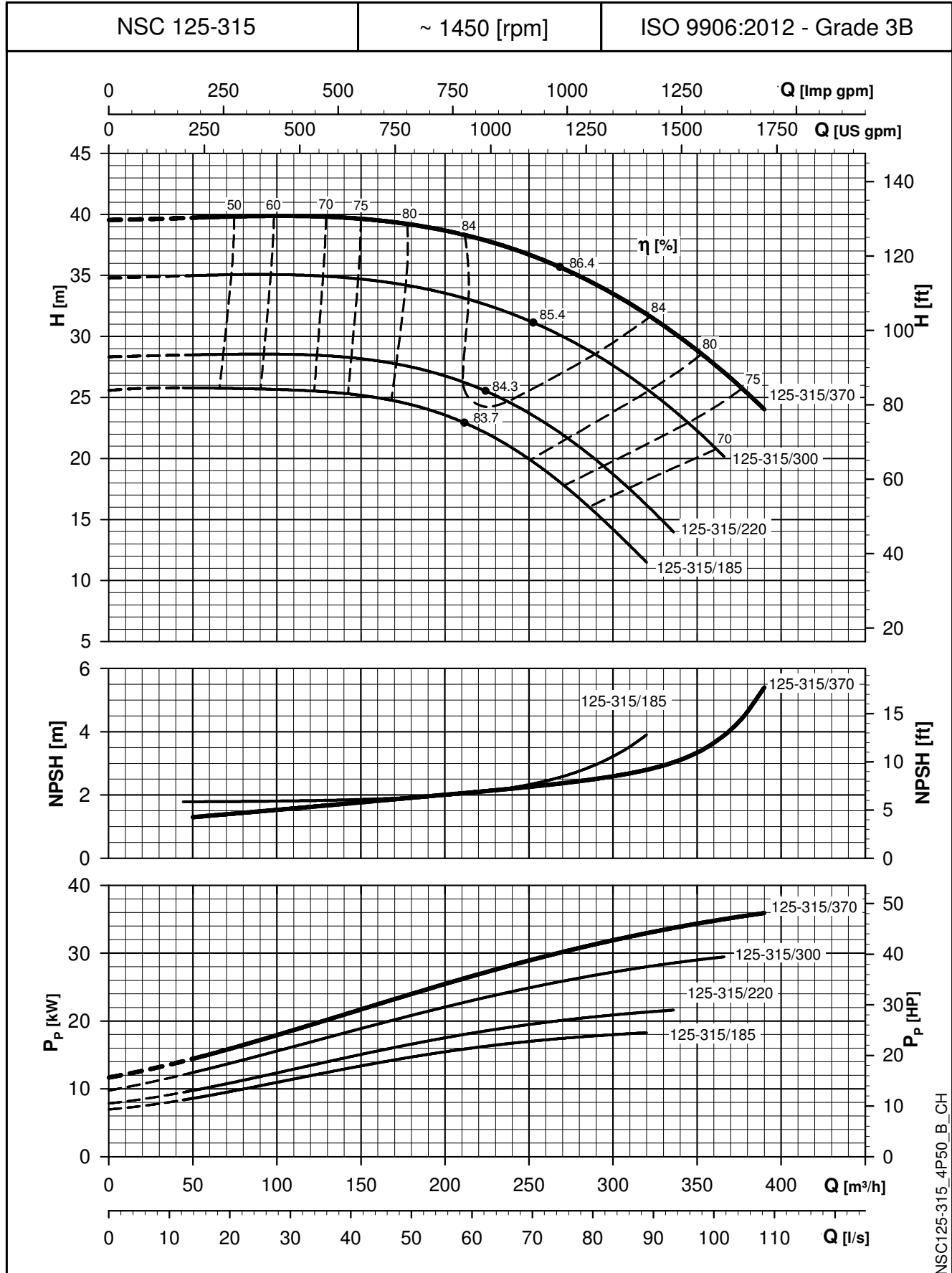


NSC125-250_4P50_B_CH

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

e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

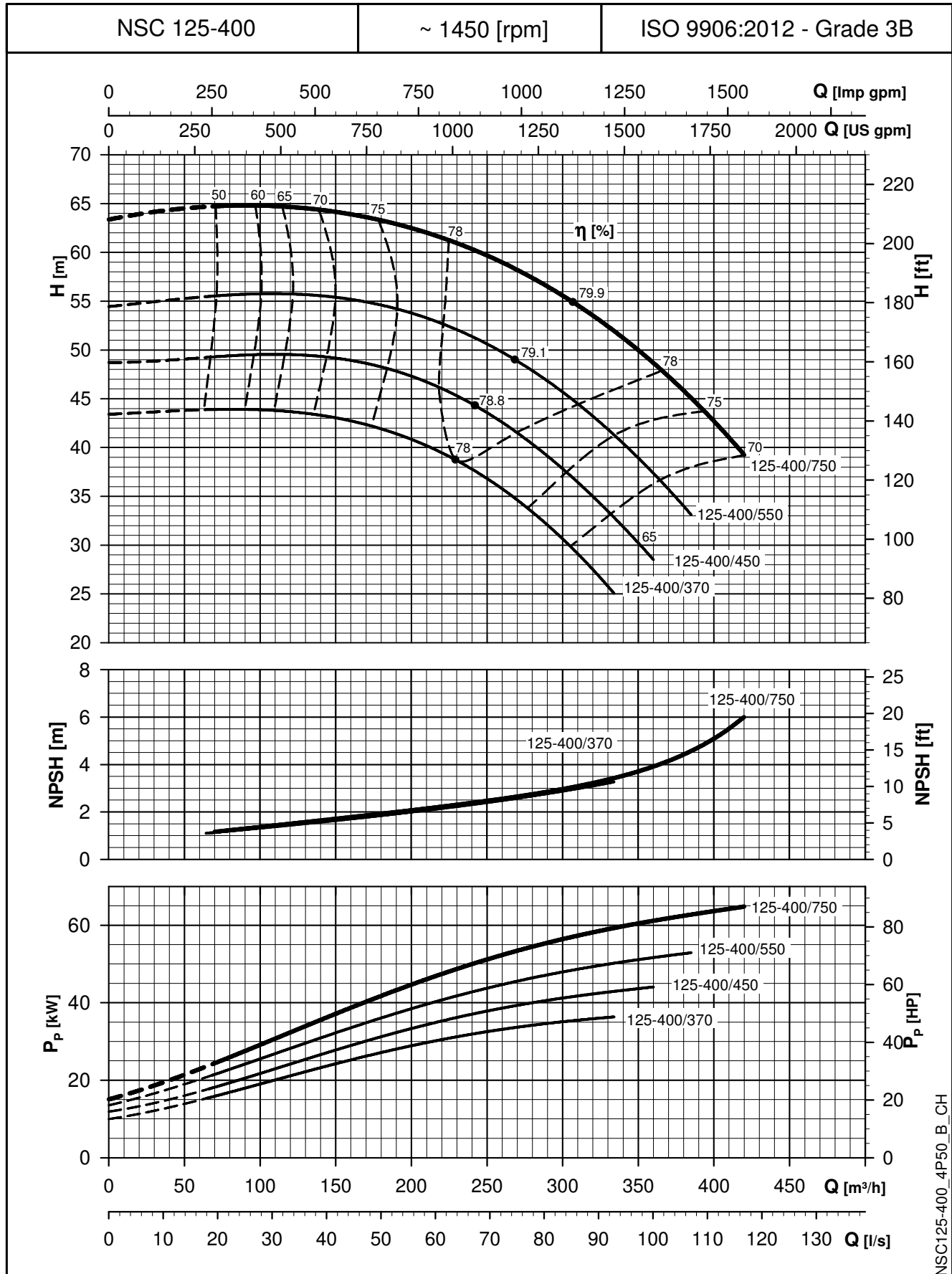


NSC125-315_4P50_B_CH

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

e-NSC SERIES

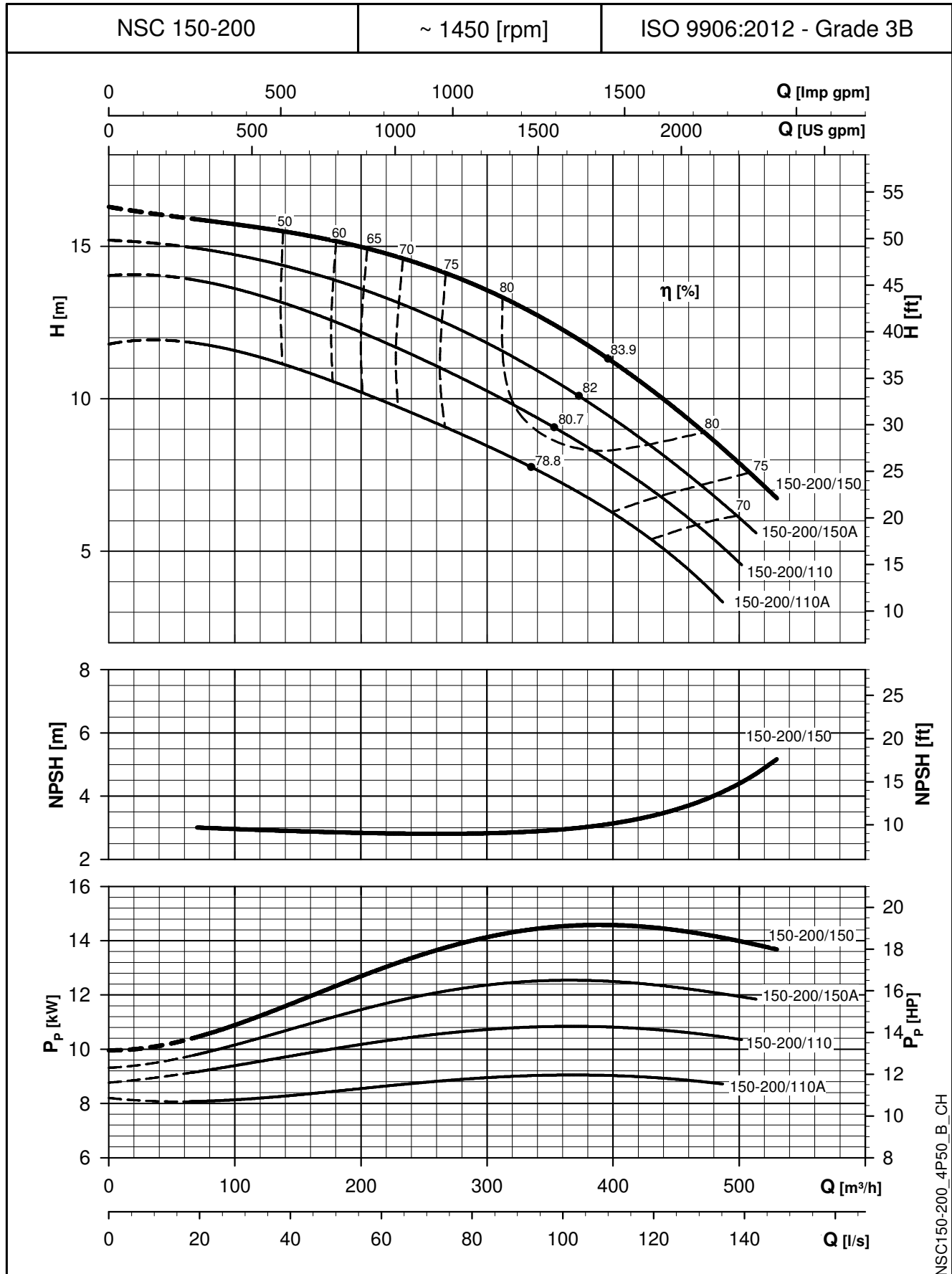
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

e-NSC SERIES

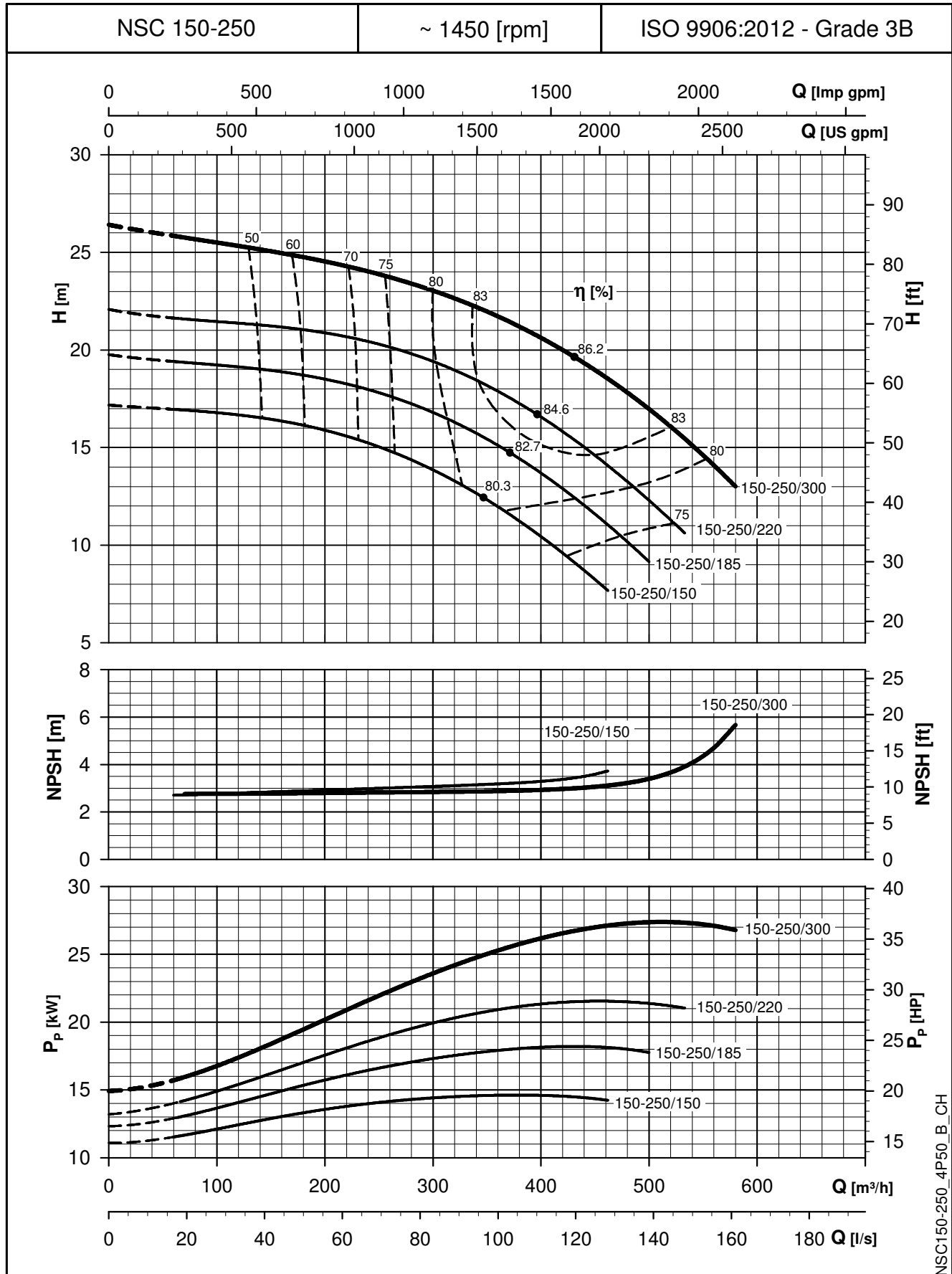
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



NSC150-200_4P50_B_CH

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

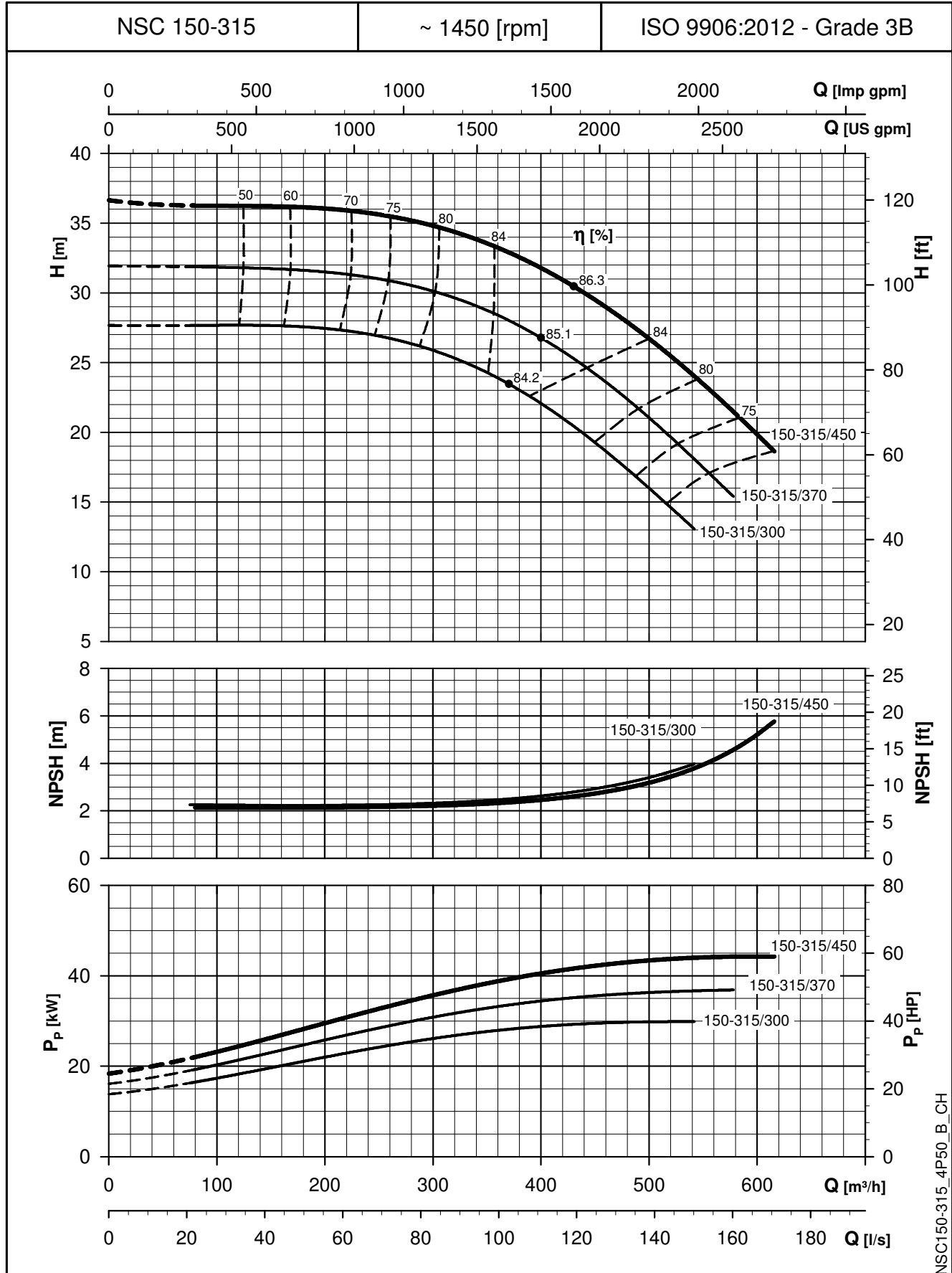
e-NSC SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

e-NSC SERIES

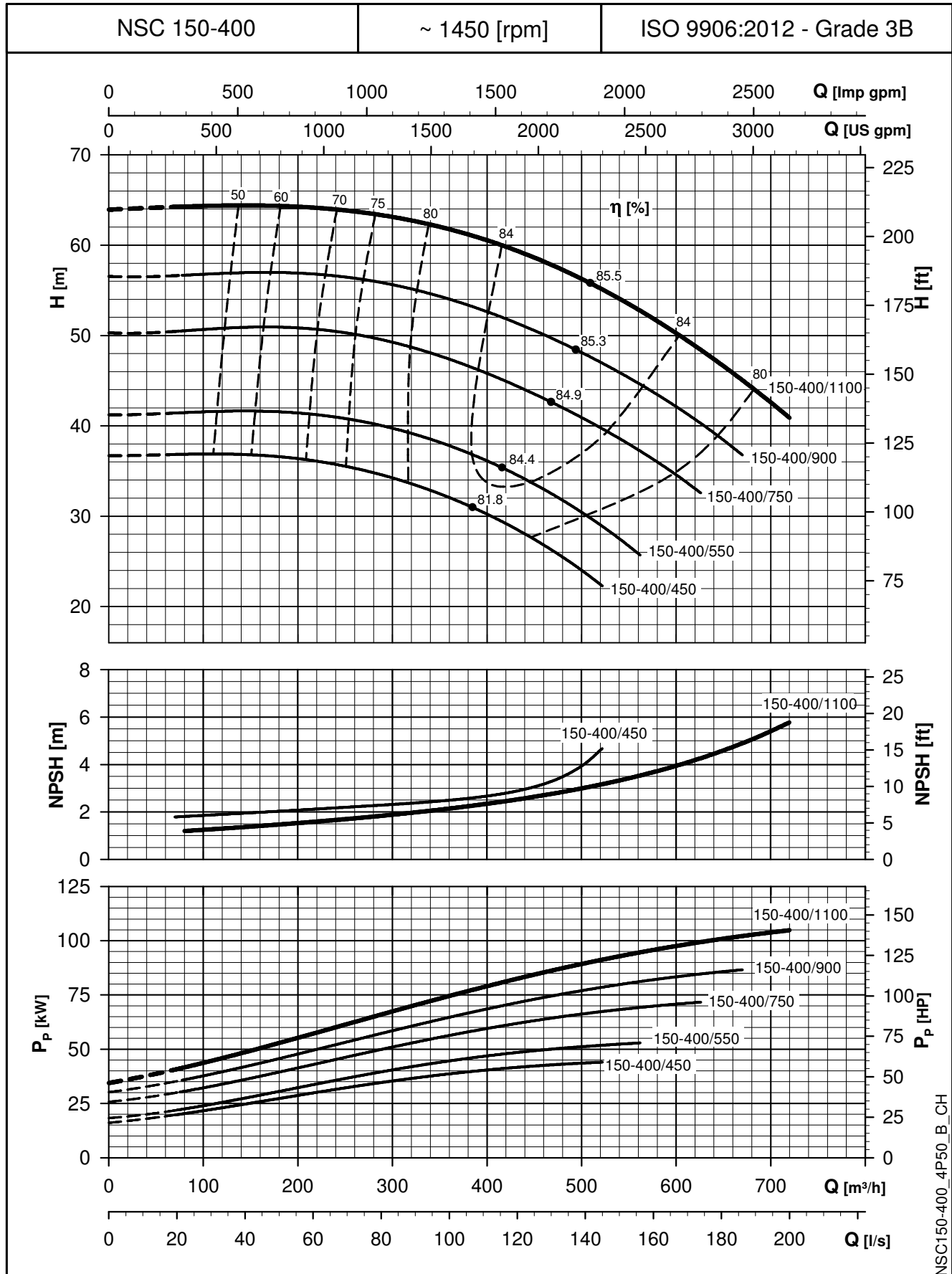
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

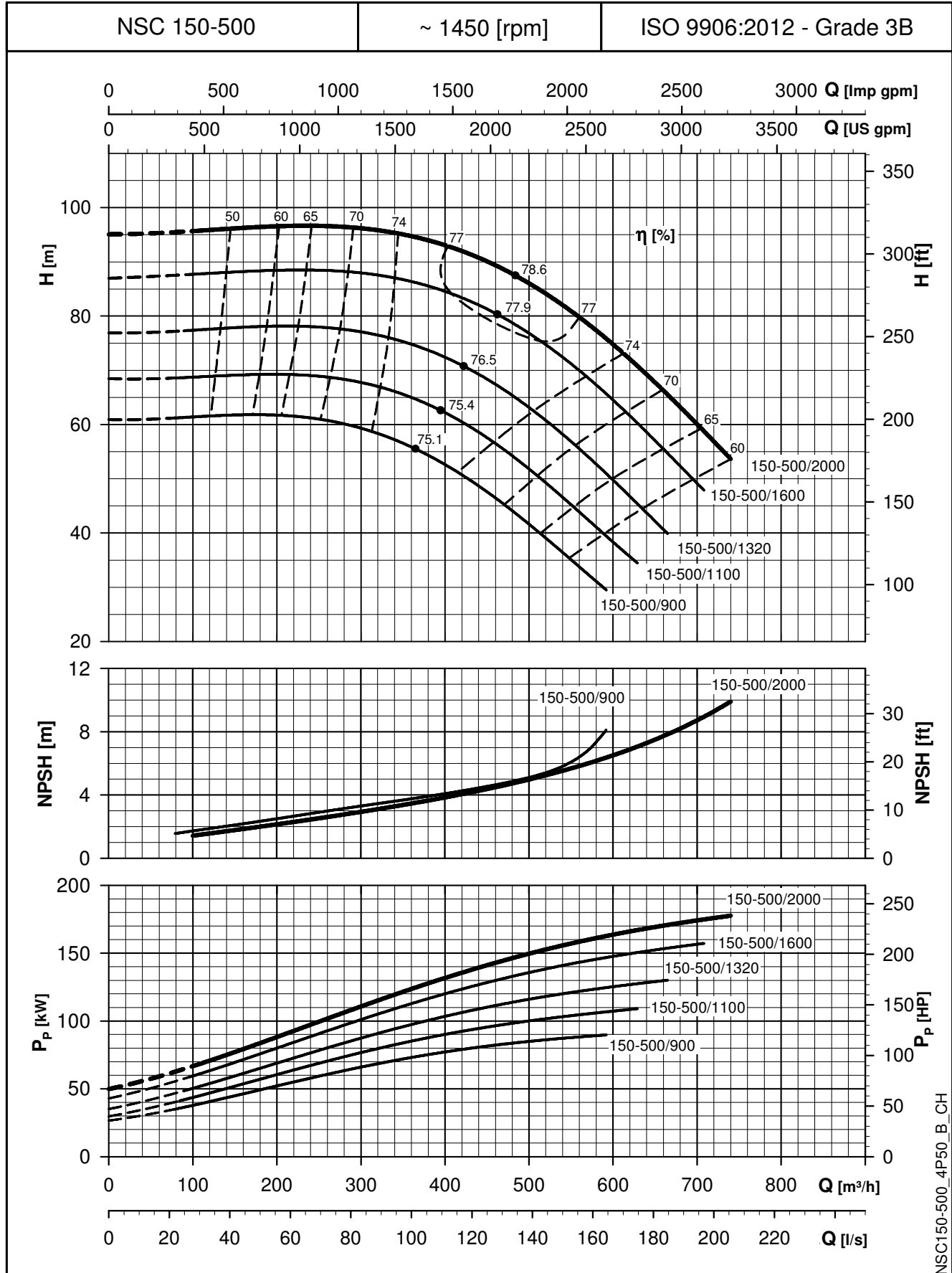


NSC150-400_4P50_B_CH

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

e-NSC SERIES

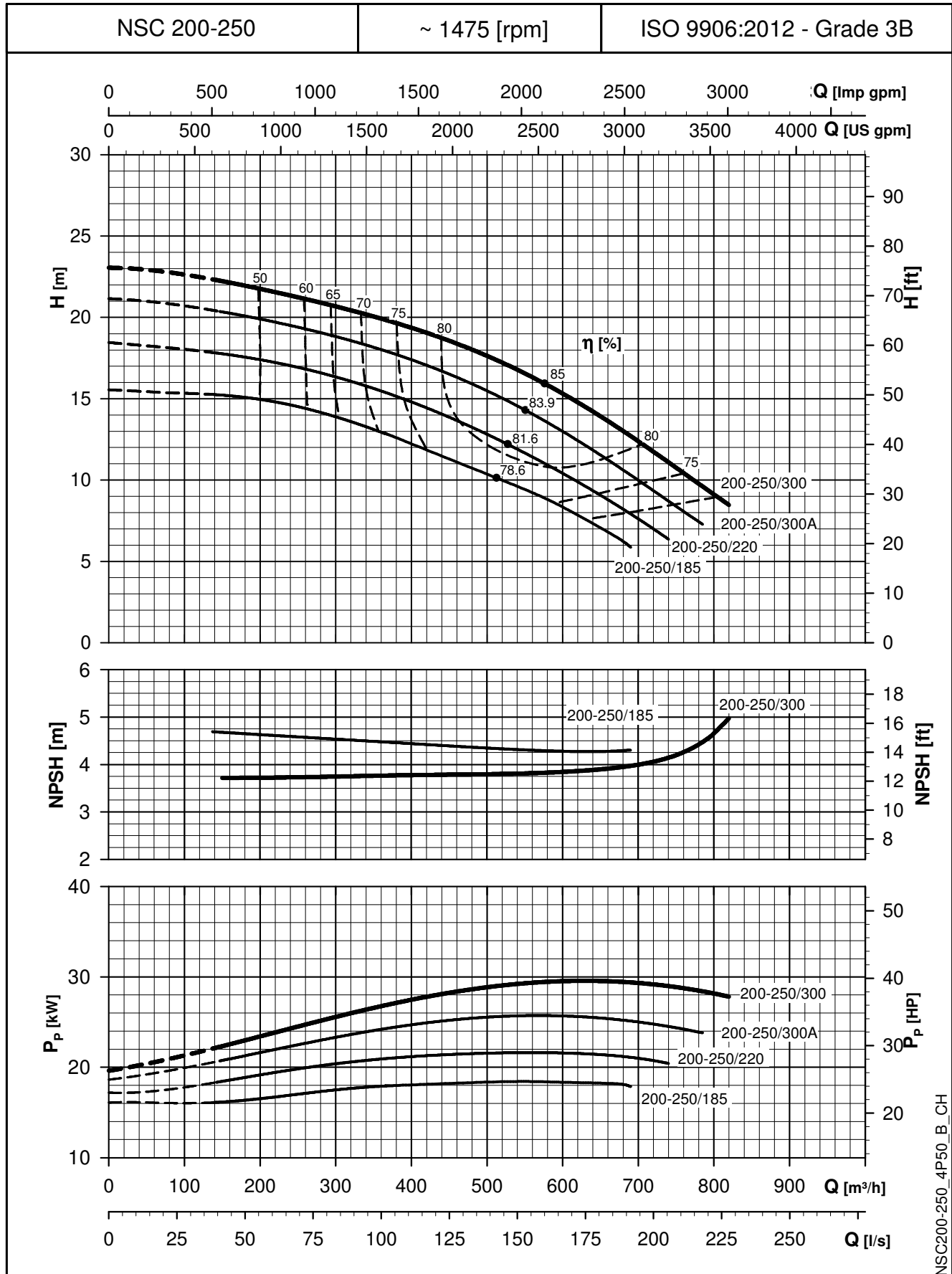
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

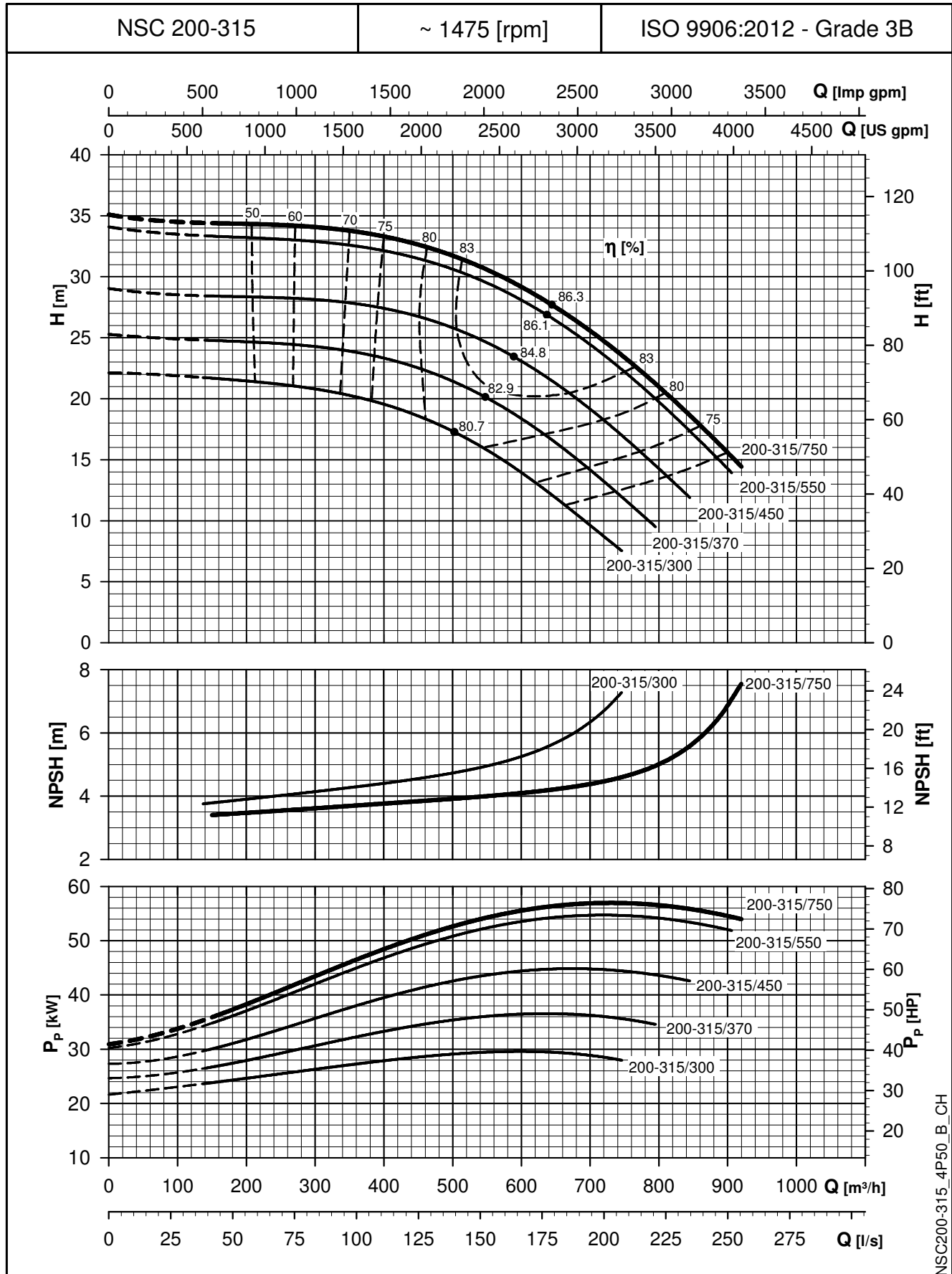


NSC200-250_4P50_B_CH

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

e-NSC SERIES

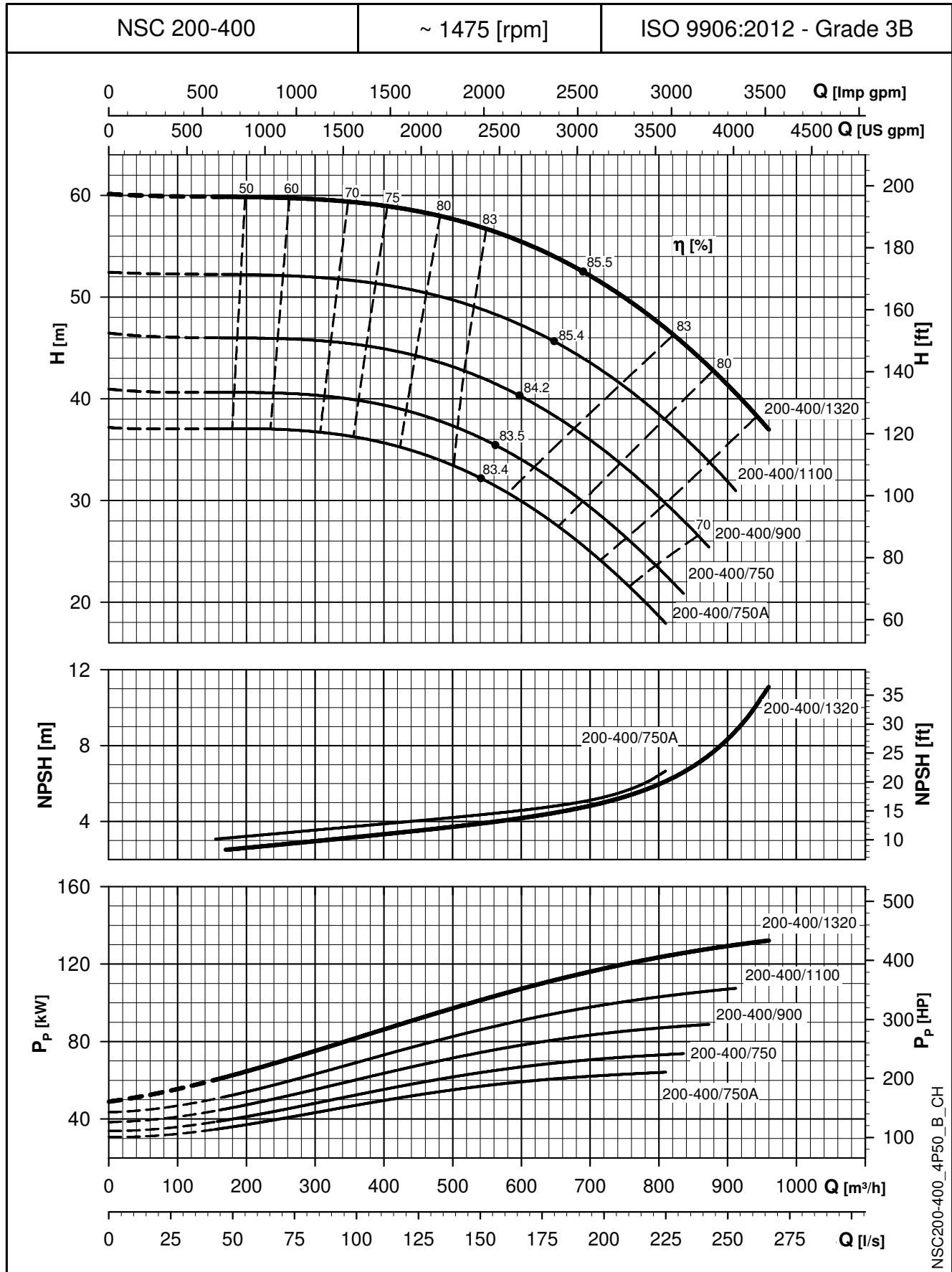
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

e-NSC SERIES

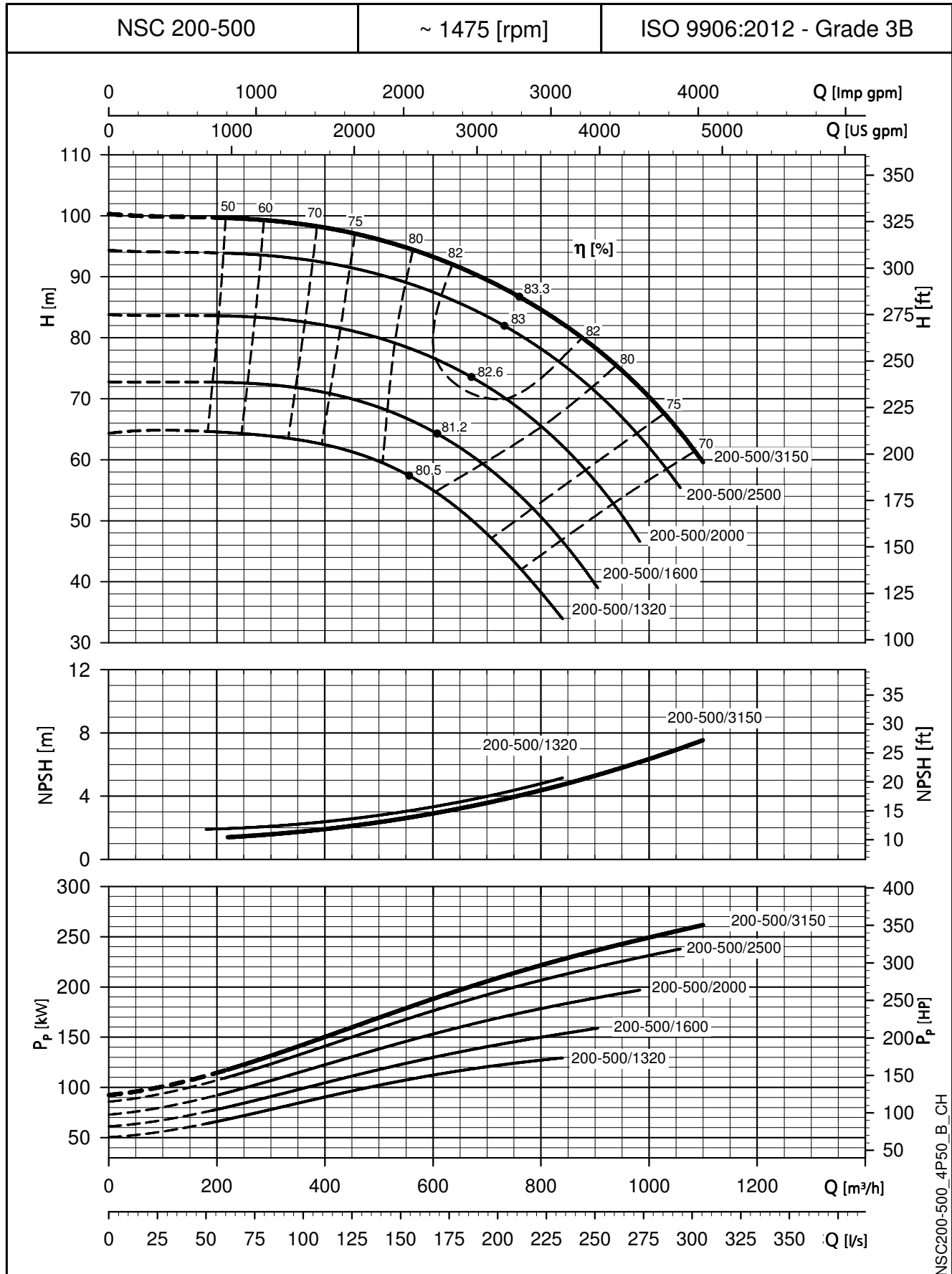
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

e-NSC SERIES

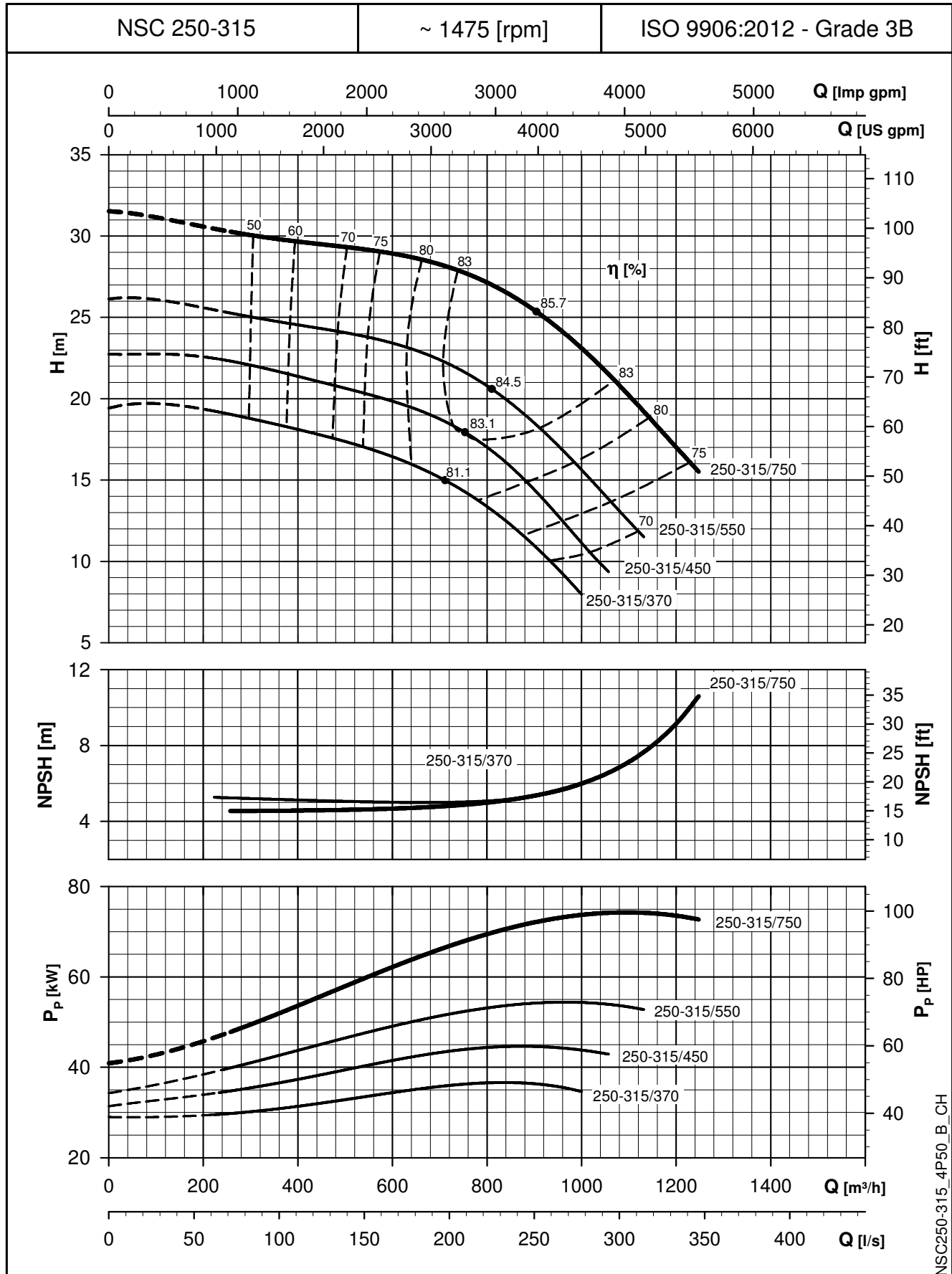
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

e-NSC SERIES

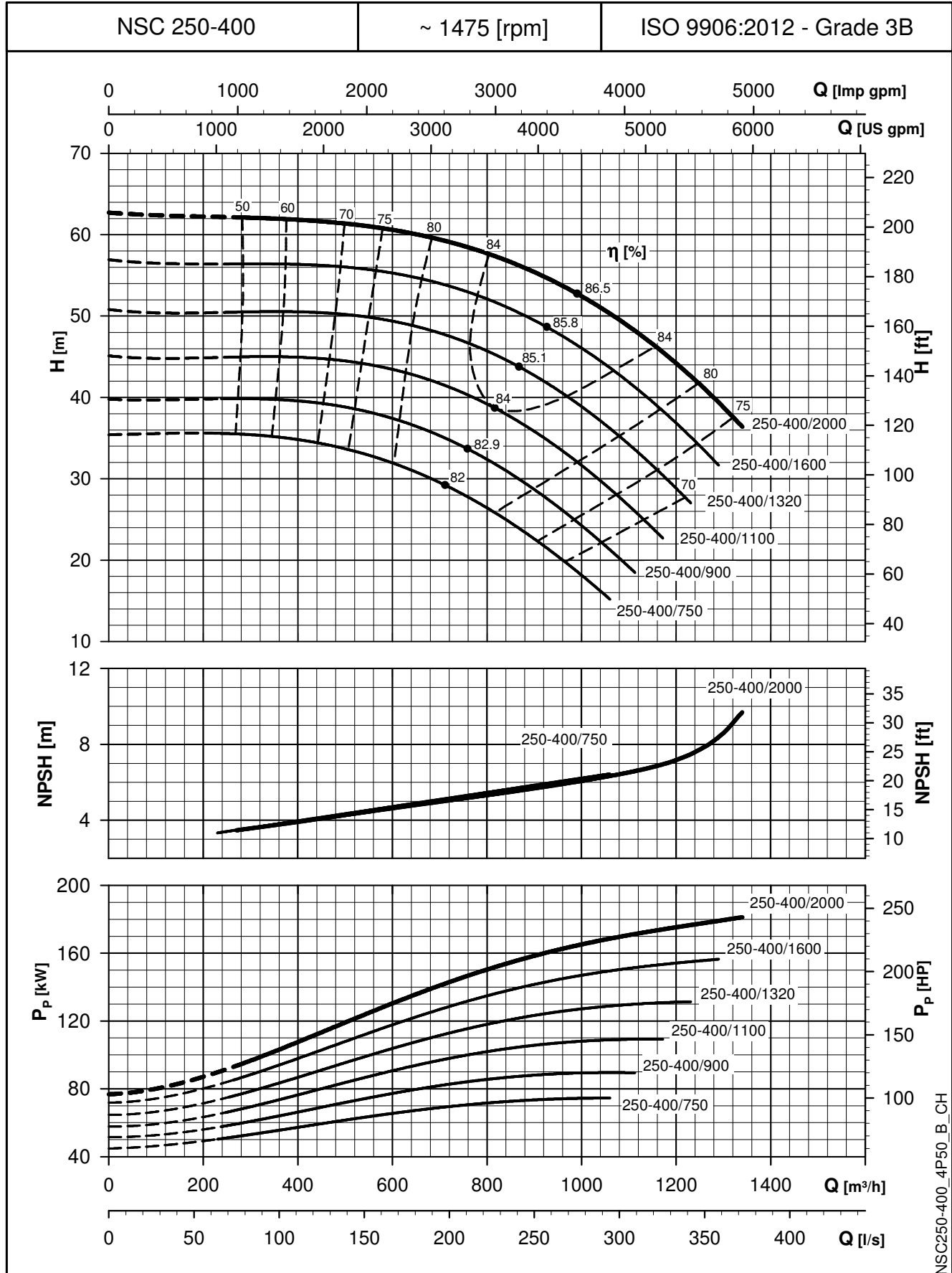
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

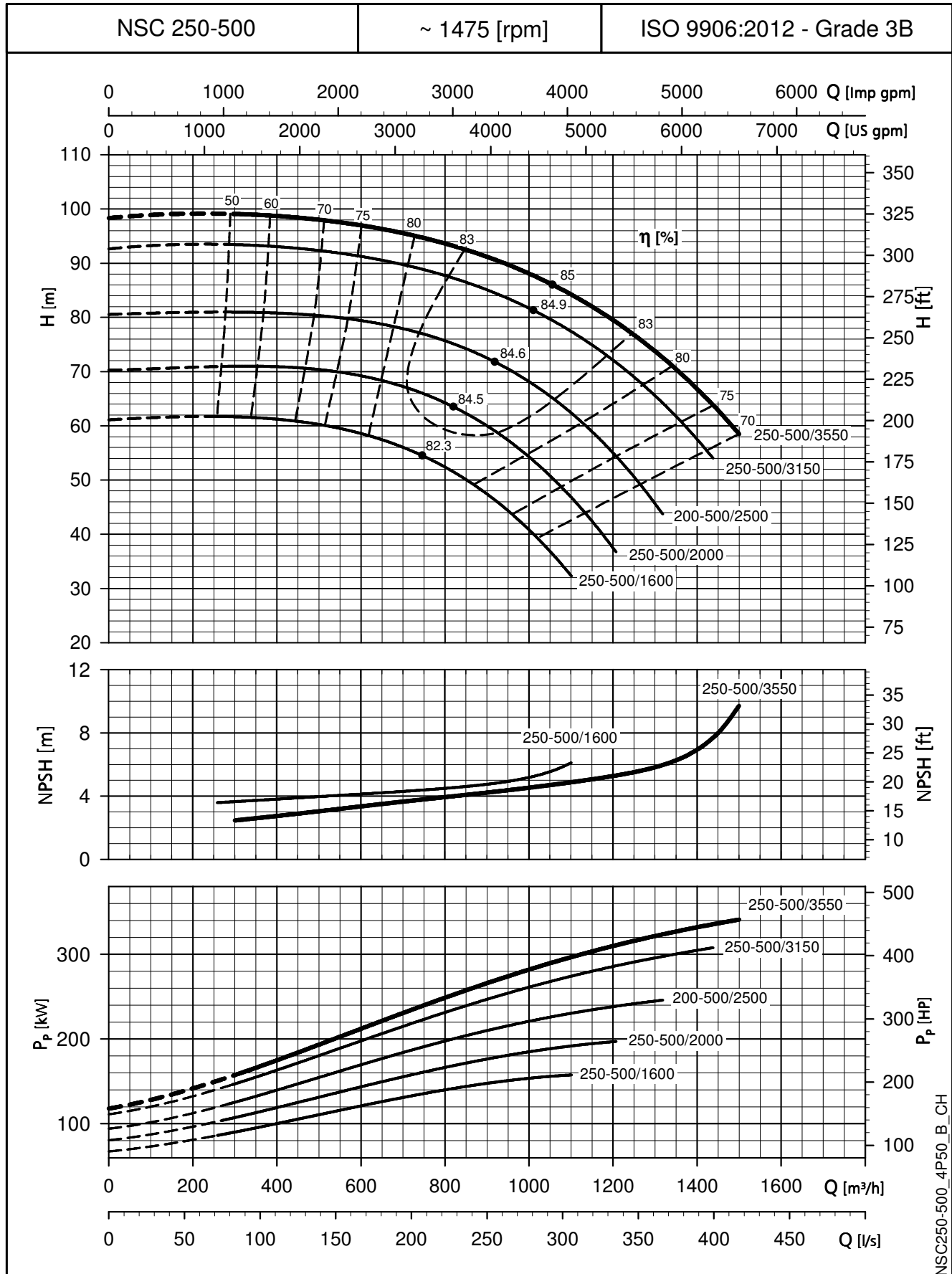
e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

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

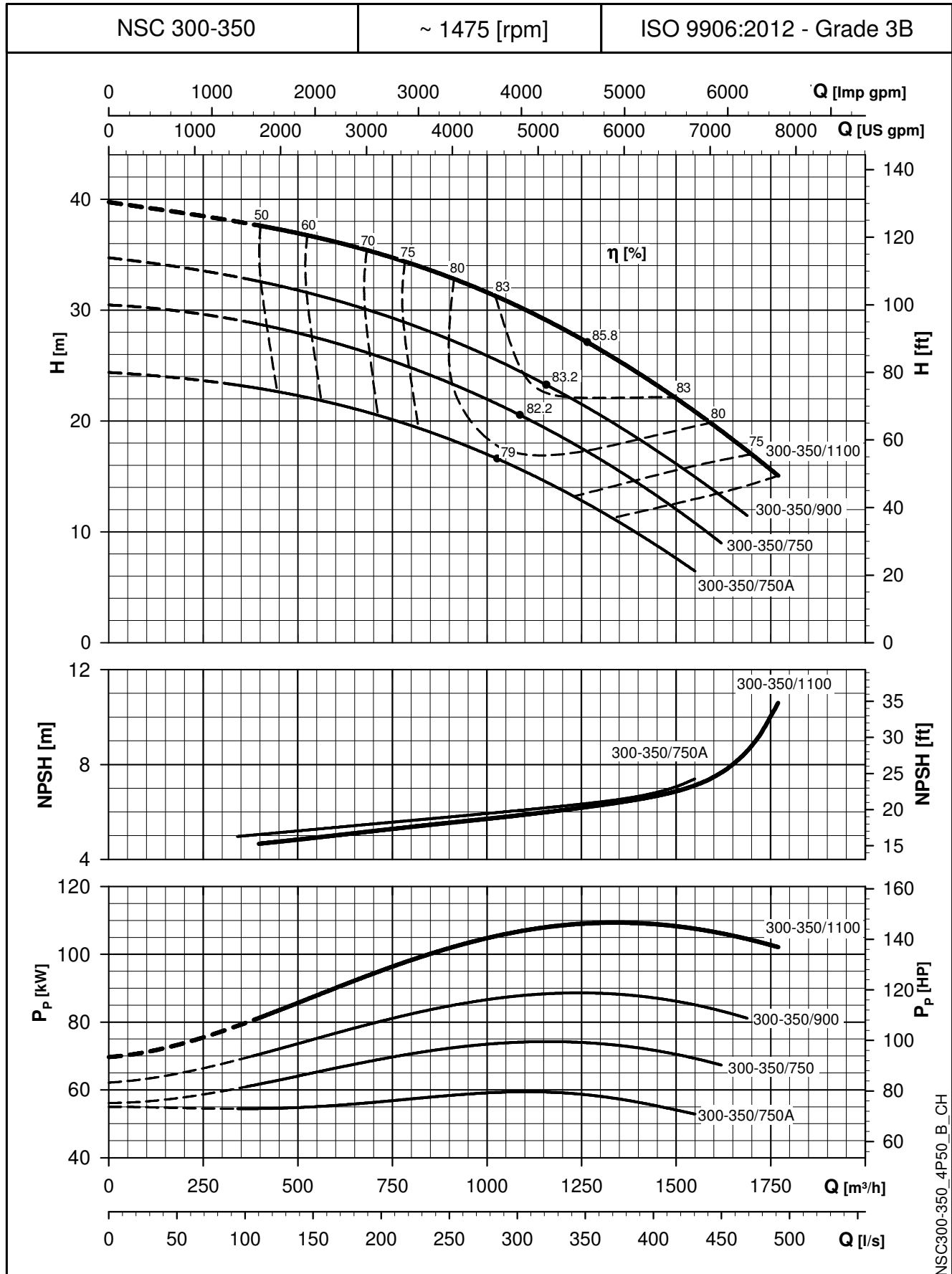


NSC250-500_4P50_B_CH

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

e-NSC SERIES

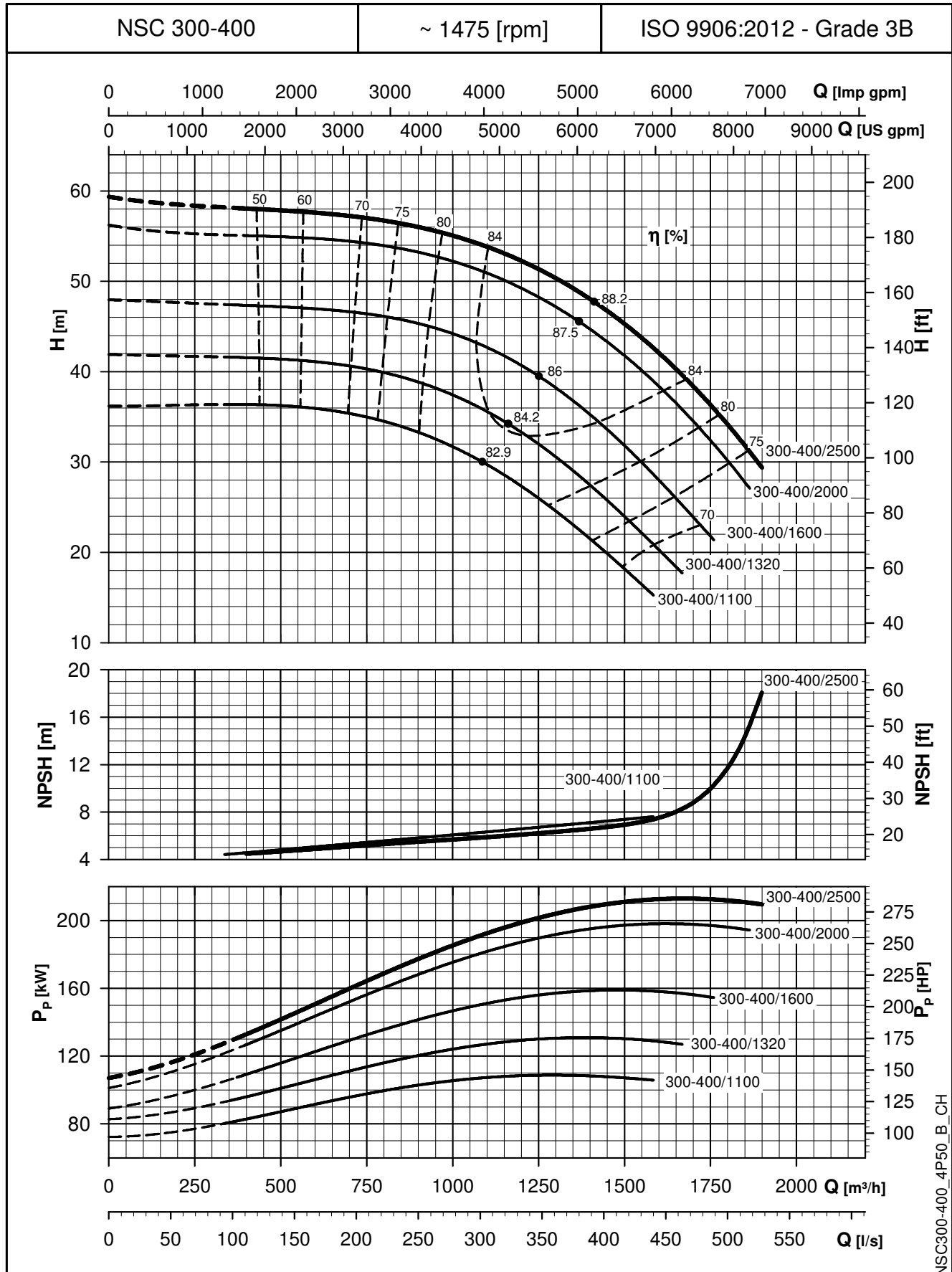
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



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

e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

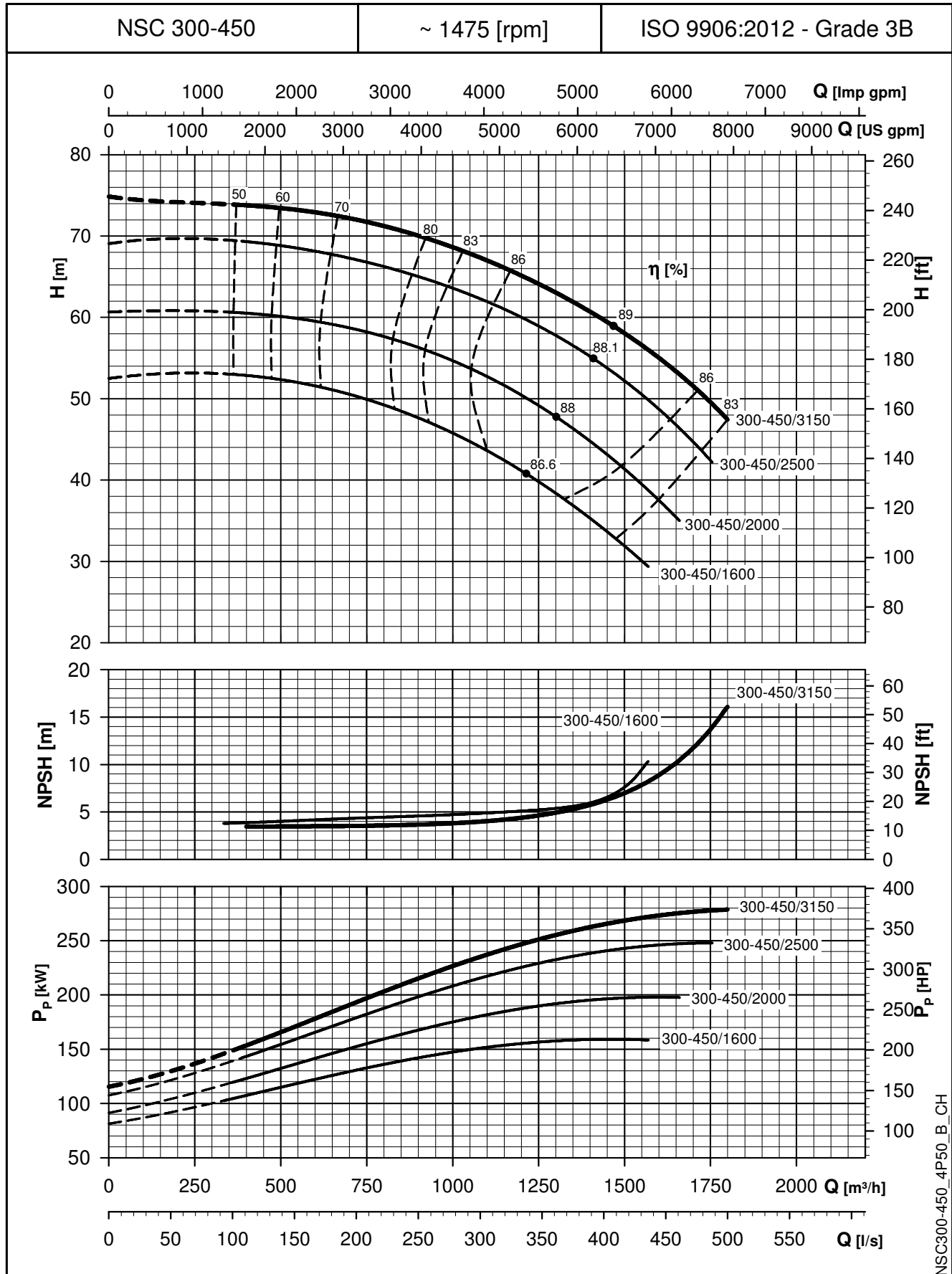


NSC300-400_4P50_B_CH

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

e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

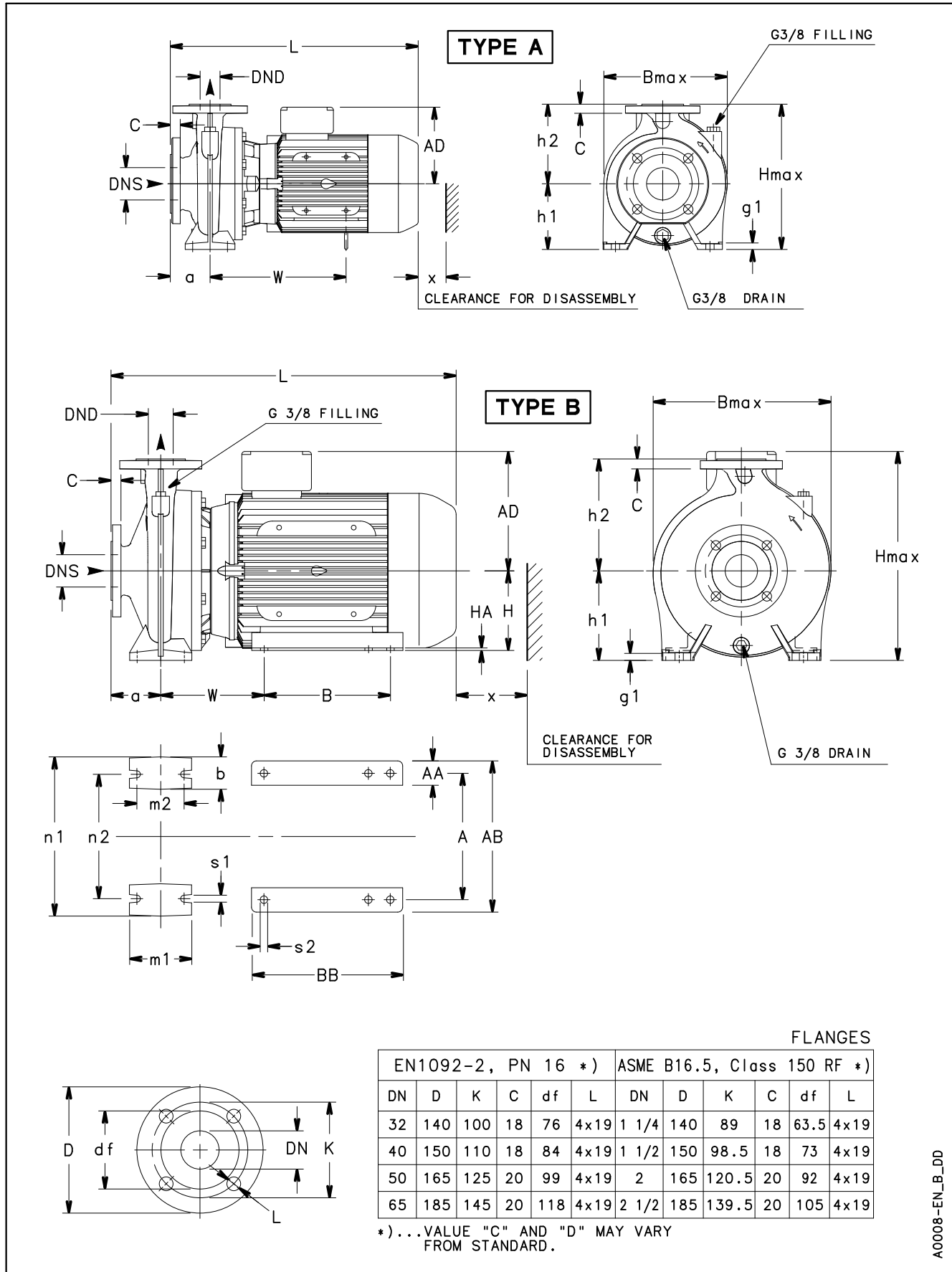


NSC300-450_4P50_B_CH

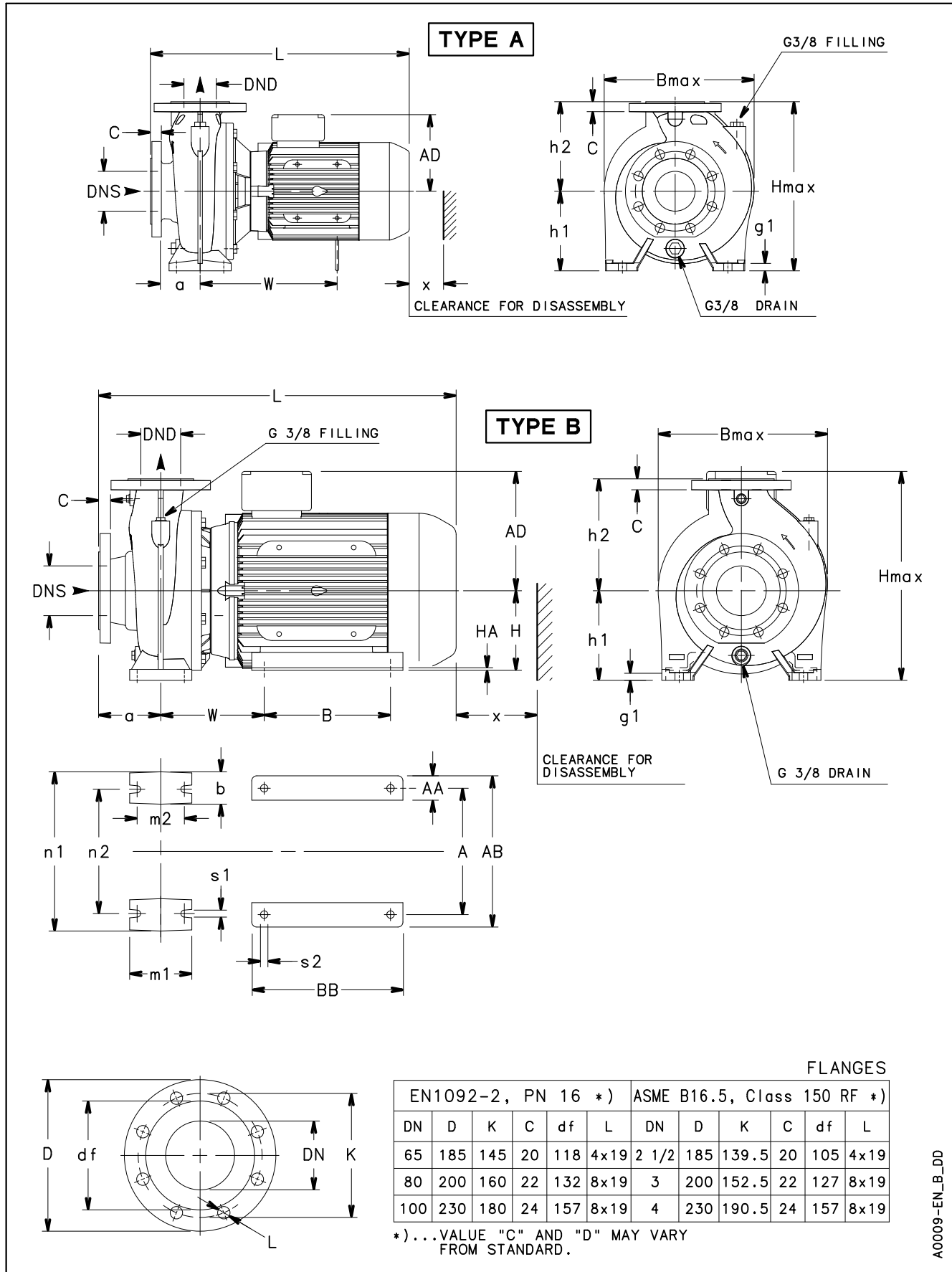
The NPSH values are laboratory values; for practical use we suggest increasing these values by 0,5 m.
 These performances are valid for liquids with density $\rho = 1,0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

DIMENSIONS AND WEIGHTS

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



NSCE 65, 80 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES



NSCE 65, 80 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

PUMP TYPE NSCE..2	TYPE	DIMENSIONS (mm)																							WEIGHT kg			
		DNS	DND	a	b	g1	h1	h2	m1	m2	n1	n2	s1	W	A	AA	AB	AD	B	BB	H	HA	s2	B max		H max	L	x
65-125/40/P	A	80	65	100	65	16	160	180	125	95	280	212	14	275	-	-	-	154	-	-	-	-	-	300	340	521	100	56
65-125/55/P	A	80	65	100	65	16	160	180	125	95	280	212	14	287	-	-	-	168	-	-	-	-	-	300	340	555	100	65
65-125/75/P	A	80	65	100	65	16	160	180	125	95	280	212	14	307	-	-	-	191	-	-	-	-	-	300	351	569	100	82
65-125/92/P	A	80	65	100	65	16	160	180	125	95	280	212	14	345	-	-	-	191	-	-	-	-	-	300	351	607	100	88
65-125/110/P	A	80	65	100	65	16	160	180	125	95	280	212	14	345	-	-	-	191	-	-	-	-	-	300	351	607	100	92
65-160/75/P	A	80	65	100	65	16	160	200	125	95	280	212	14	305	-	-	-	191	-	-	-	-	-	335	360	567	108	85
65-160/92/P	A	80	65	100	65	16	160	200	125	95	280	212	14	343	-	-	-	191	-	-	-	-	-	335	360	605	108	91
65-160/110/P	A	80	65	100	65	16	160	200	125	95	280	212	14	343	-	-	-	191	-	-	-	-	-	335	360	605	108	96
65-160/150/P	B	80	65	100	65	16	160	200	125	95	280	212	14	208	254	49	304	240	210	304	160	5	15	335	400	694	108	133
65-160/185/P	B	80	65	100	65	16	160	200	125	95	280	212	14	208	254	49	304	240	254	304	160	5	15	335	400	694	108	143
65-200/110/P	A	80	65	100	65	16	180	225	125	95	320	250	14	343	-	-	-	191	-	-	-	-	-	348	405	605	118	101
65-200/150/P	B	80	65	100	65	16	180	225	125	95	320	250	14	208	254	49	304	240	210	304	160	5	15	348	420	694	118	138
65-200/185/P	B	80	65	100	65	16	180	225	125	95	320	250	14	208	254	49	304	240	254	304	160	5	15	348	420	694	118	148
65-200/220/P	B	80	65	100	65	16	180	225	125	95	320	250	14	208	254	49	304	240	254	304	160	5	15	348	420	694	118	157
80-160/110/P	A	100	80	125	65	16	180	225	125	95	320	250	14	343	-	-	-	191	-	-	-	-	-	340	405	630	122	110
80-160/150/P	B	100	80	125	65	16	180	225	125	95	320	250	14	208	254	49	304	240	210	304	160	5	15	340	420	719	122	147
80-160/185/P	B	100	80	125	65	16	180	225	125	95	320	250	14	208	254	49	304	240	254	304	160	5	15	340	420	719	122	157
80-160/220/P	B	100	80	125	65	16	180	225	125	95	320	250	14	208	254	49	304	240	254	304	160	5	15	340	420	719	122	166

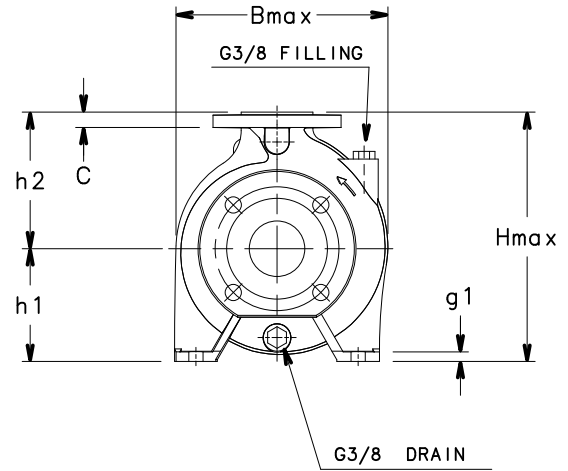
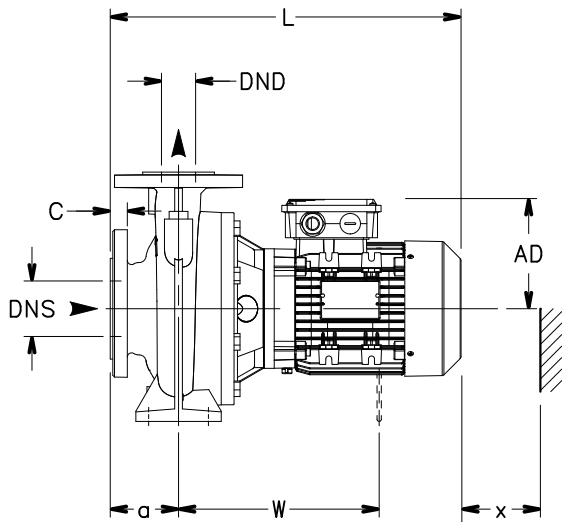
For shims and supports see accessories section.

nsce-65-80_2p50-en_c_ld

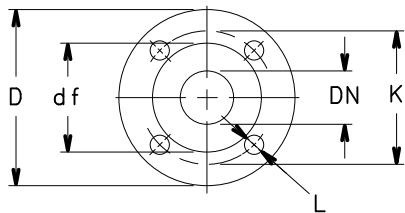
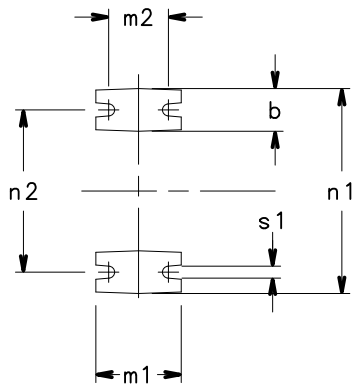
NOTE: Pumps with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.

**NSCE 32, 40, 50 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES**

TYPE A



CLEARANCE FOR DISASSEMBLY

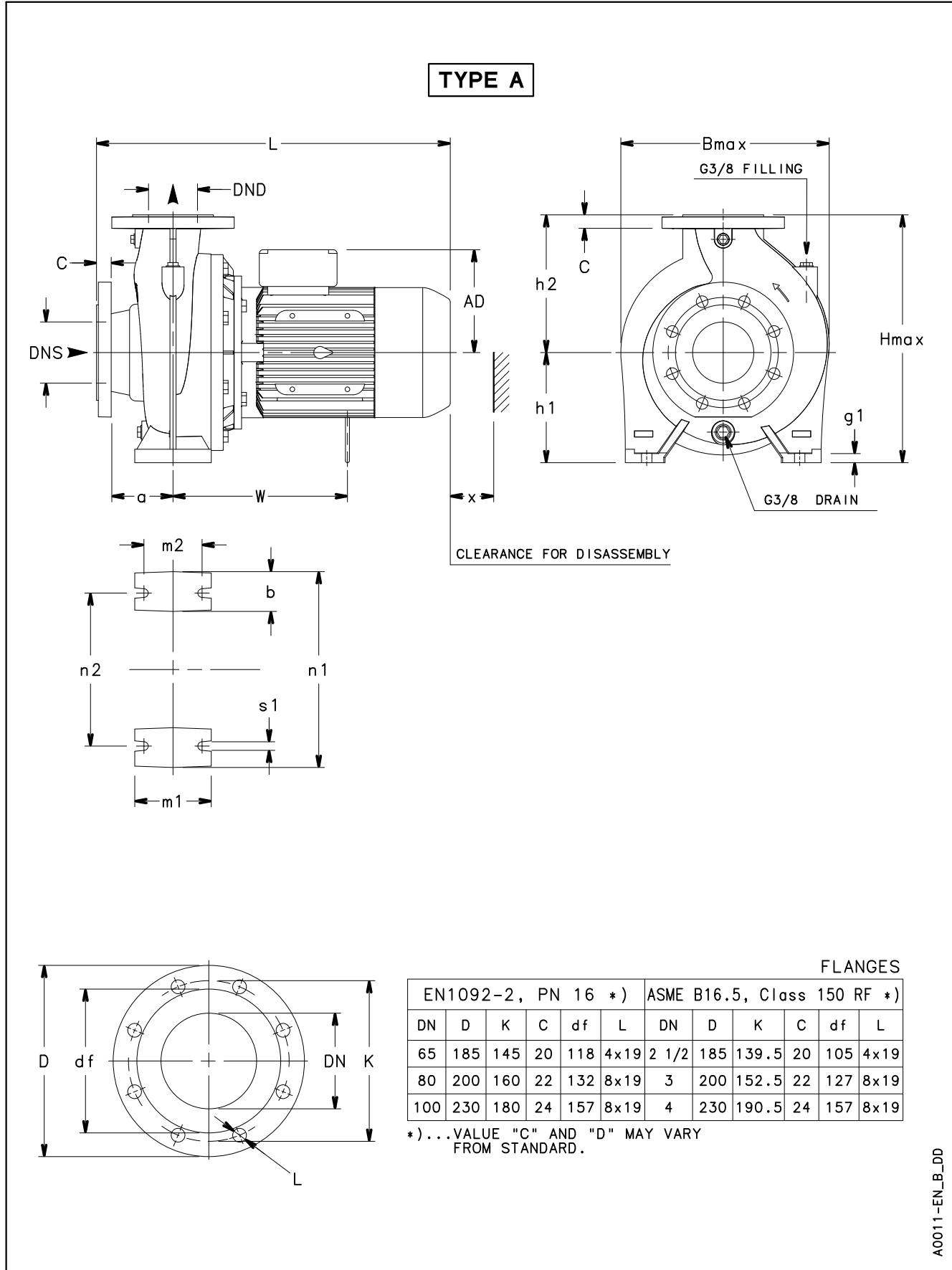


FLANGES

EN1092-2, PN 16 *)						ASME B16.5, Class 150 RF *)					
DN	D	K	C	df	L	DN	D	K	C	df	L
32	140	100	18	76	4x19	1 1/4	140	89	18	63.5	4x19
40	150	110	18	84	4x19	1 1/2	150	98.5	18	73	4x19
50	165	125	20	99	4x19	2	165	120.5	20	92	4x19
65	185	145	20	118	4x19	2 1/2	185	139.5	20	105	4x19

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

**NSCE 65, 80 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES**

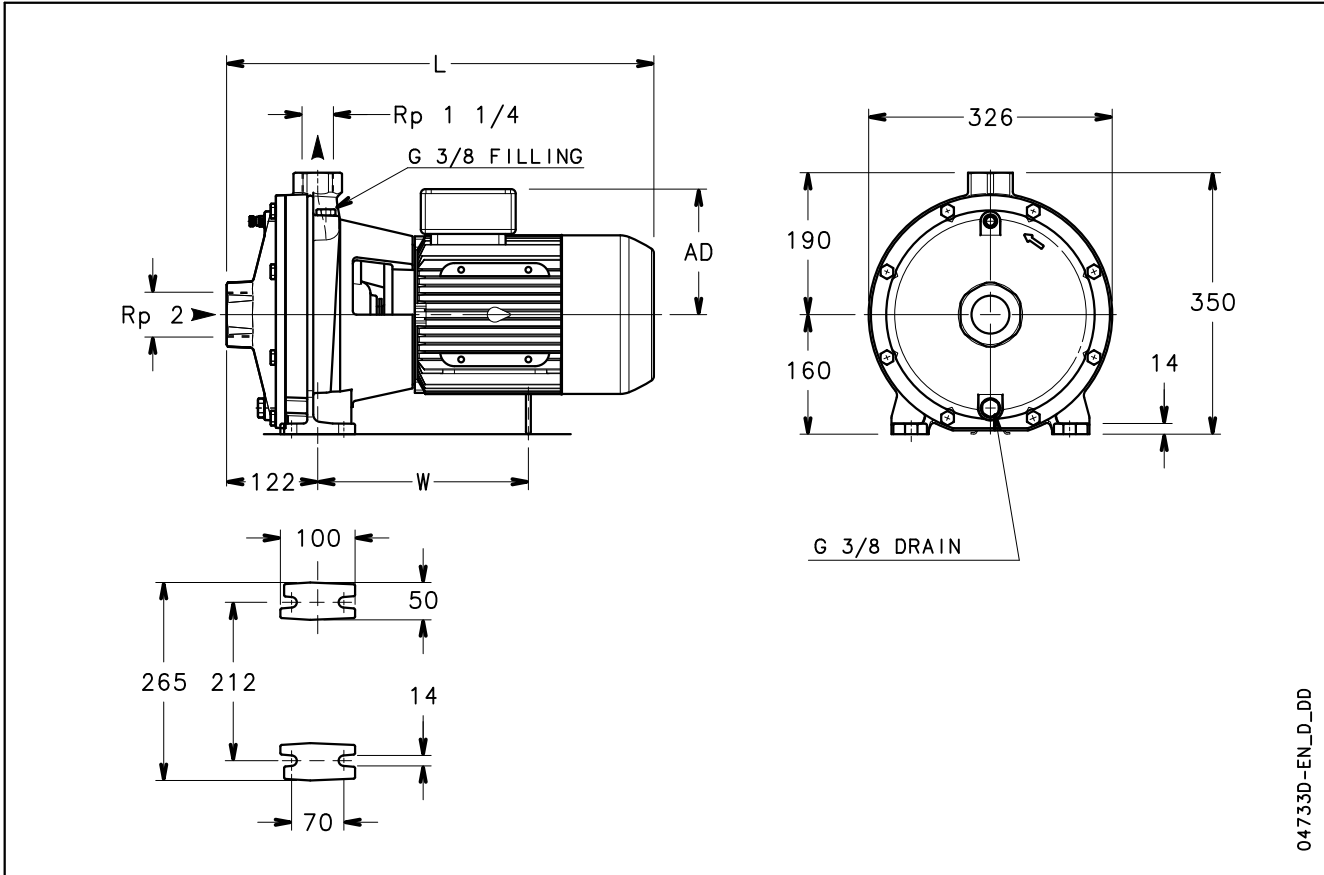


NSCE 65, 80 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES

PUMP TYPE NSCE..4	TYPE	DIMENSIONS (mm)																		WEIGHT kg
		DNS	DND	a	AD	b	g1	h1	h2	m1	m2	n1	n2	s1	W	B max	H max	L	x	
65-125/05/X	A	80	65	100	128	65	16	160	180	125	95	280	212	14	226	300	340	433	100	39
65-125/07/X	A	80	65	100	128	65	16	160	180	125	95	280	212	14	226	300	340	433	100	44
65-125/11/P	A	80	65	100	134	65	16	160	180	125	95	280	212	14	247	300	340	500	100	50
65-125/15/P	A	80	65	100	134	65	16	160	180	125	95	280	212	14	247	300	340	500	100	53
65-160/15B/P	A	80	65	100	134	65	16	160	200	125	95	280	212	14	245	335	360	498	108	55
65-160/15A/P	A	80	65	100	134	65	16	160	200	125	95	280	212	14	245	335	360	498	108	55
65-160/15/P	A	80	65	100	134	65	16	160	200	125	95	280	212	14	245	335	360	498	108	55
65-160/22A/P	A	80	65	100	168	65	16	160	200	125	95	280	212	14	285	335	360	522	108	65
65-160/22/P	A	80	65	100	168	65	16	160	200	125	95	280	212	14	285	335	360	522	108	65
65-200/15/P	A	80	65	100	134	65	16	180	225	125	95	320	250	14	245	348	405	498	118	58
65-200/22A/P	A	80	65	100	168	65	16	180	225	125	95	320	250	14	285	348	405	522	118	68
65-200/22/P	A	80	65	100	168	65	16	180	225	125	95	320	250	14	285	348	405	522	118	68
65-200/30/P	A	80	65	100	168	65	16	180	225	125	95	320	250	14	285	348	405	553	118	71
65-200/40/P	A	80	65	100	168	65	16	180	225	125	95	320	250	14	345	348	405	582	118	90
80-160/15/P	A	100	80	125	134	65	16	180	225	125	95	320	250	14	245	340	405	523	122	65
80-160/22A/P	A	100	80	125	168	65	16	180	225	125	95	320	250	14	285	340	405	547	122	75
80-160/22/P	A	100	80	125	168	65	16	180	225	125	95	320	250	14	285	340	405	547	122	75
80-160/30/P	A	100	80	125	168	65	16	180	225	125	95	320	250	14	285	340	405	578	122	78

NOTE: Pumps with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.

nsce-65-80-4p50-en_f_td

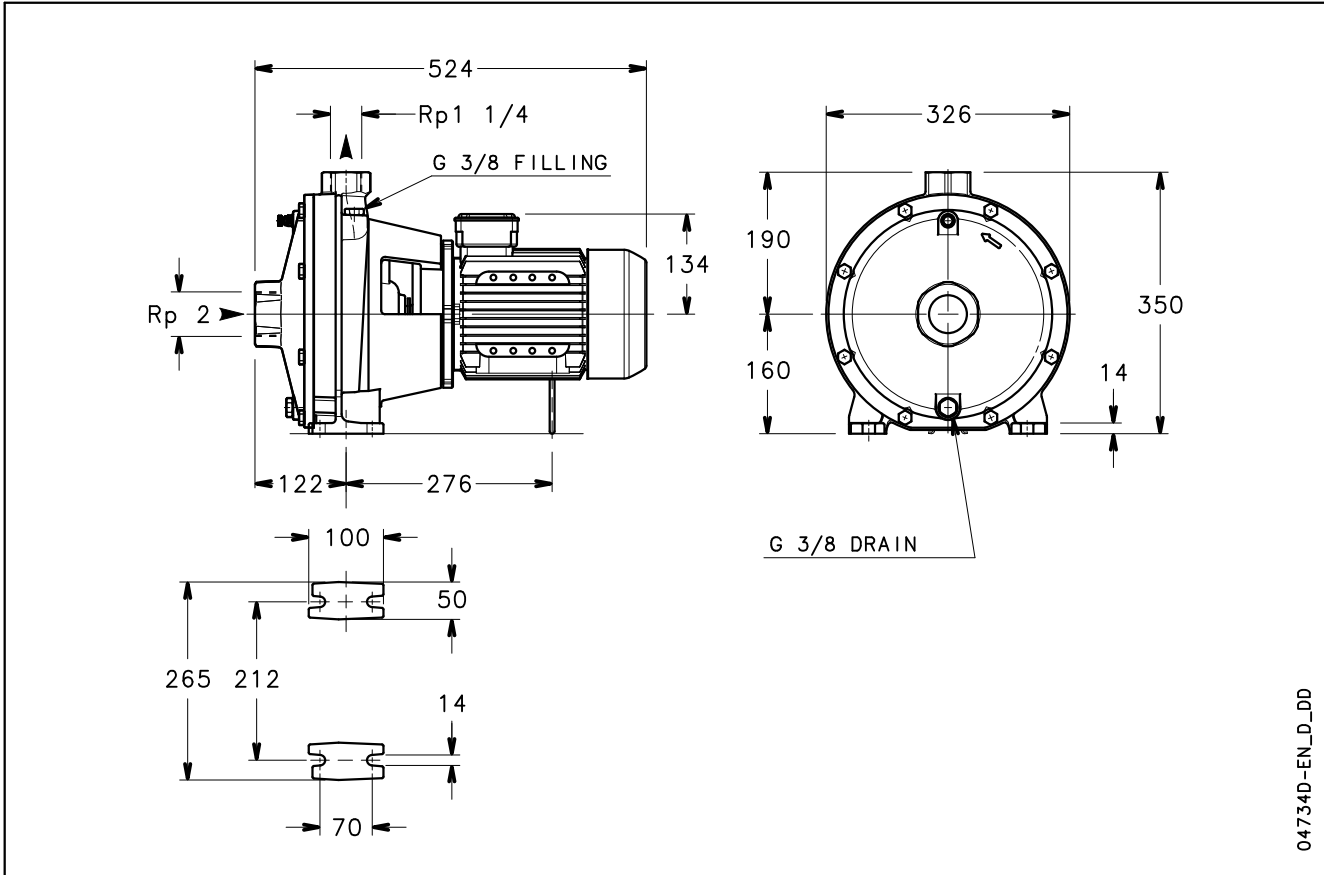
**NSC2 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES**


047330-EN_DD

PUMP TYPE	DIMENSIONS (mm)			WEIGHT
	L	W	AD	kg
NSC2 32-250/55/P	572	282	168	74
NSC2 32-250/75/P	607	323	191	90

Nsc2-2p50-en_a_td

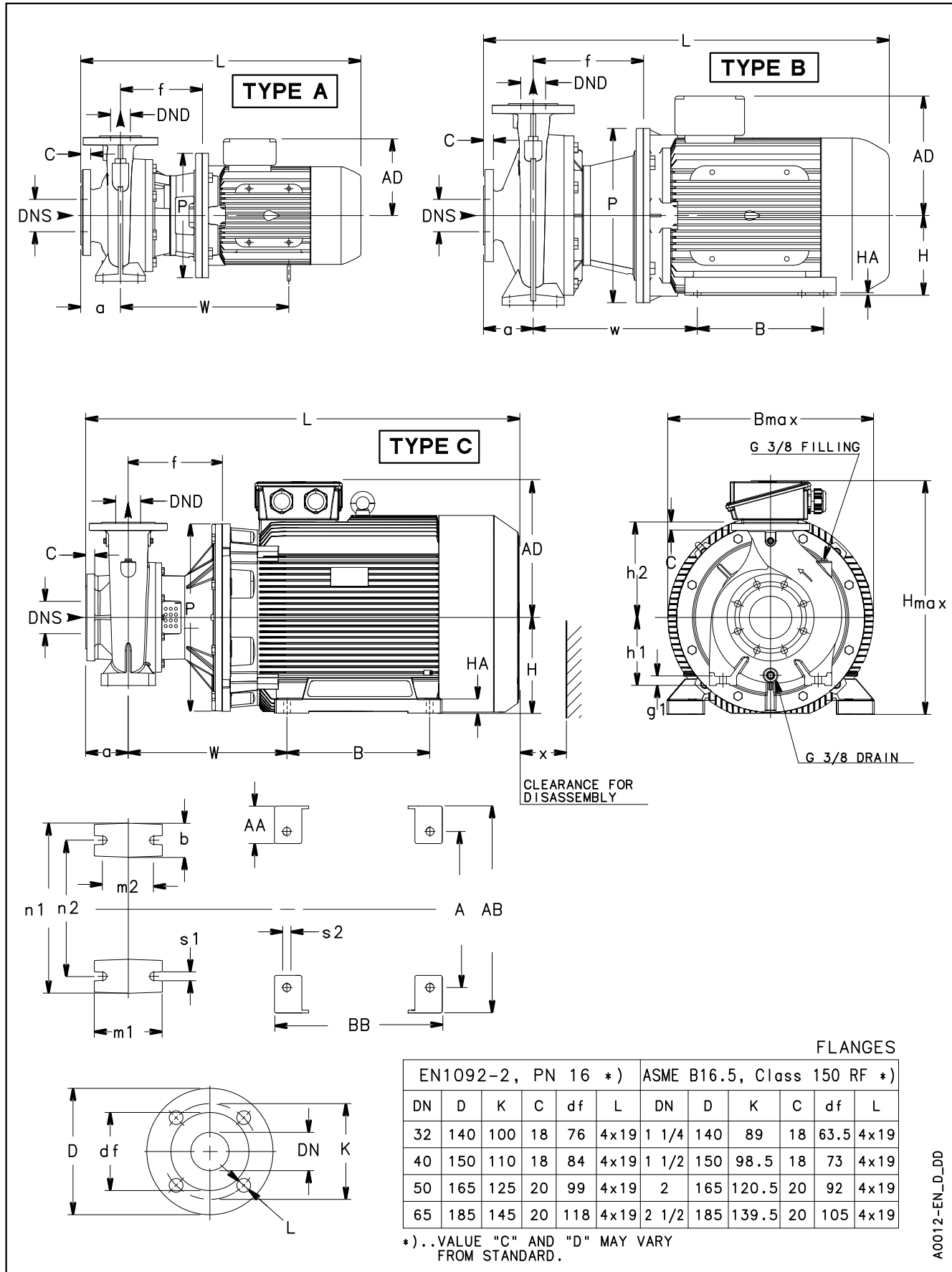
**NSC2 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES**



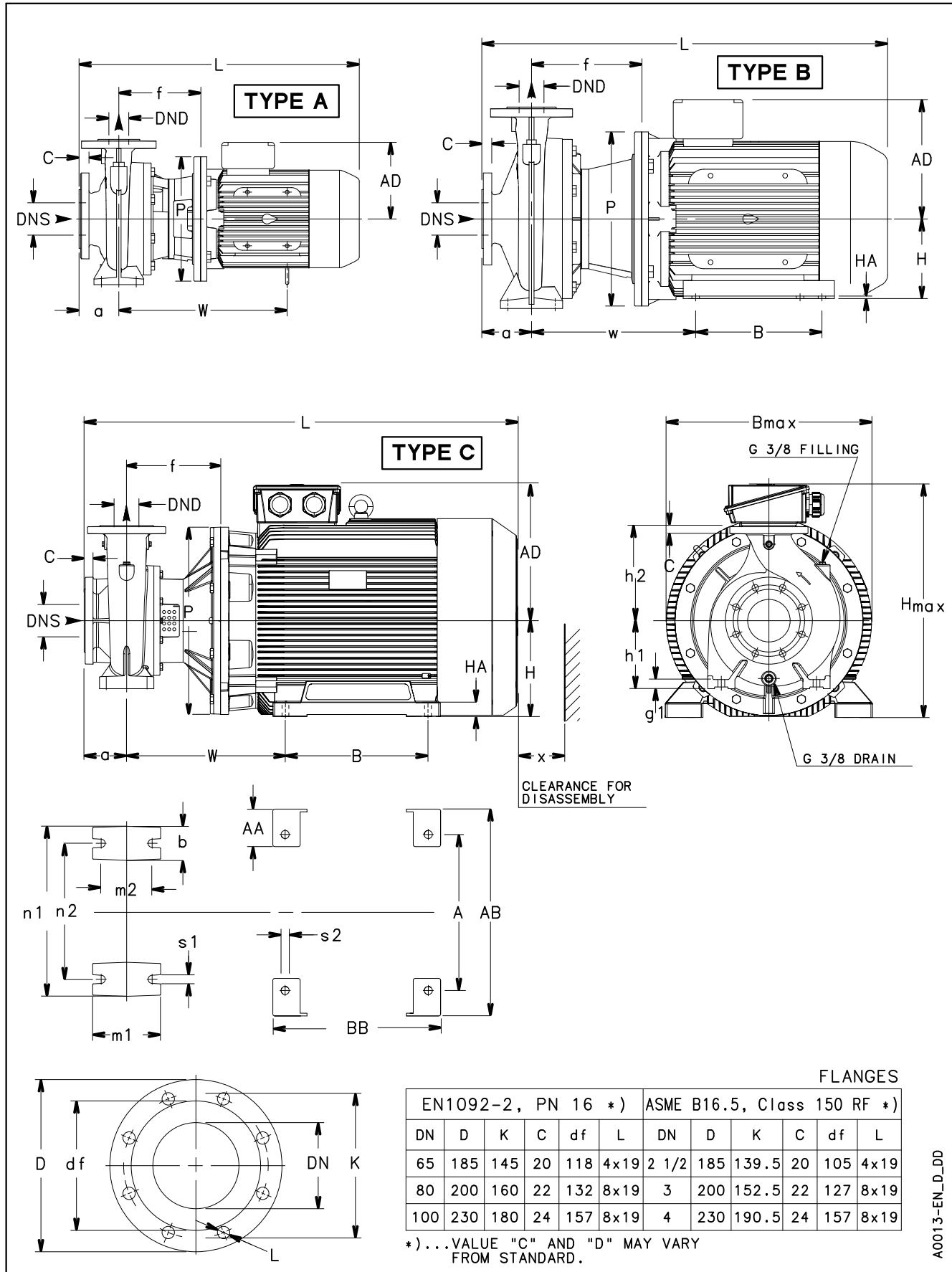
PUMP TYPE	WEIGHT kg
NSC2 32-250/11A/P	53
NSC2 32-250/11/P	55

Nsc2-4p50-en_b_td

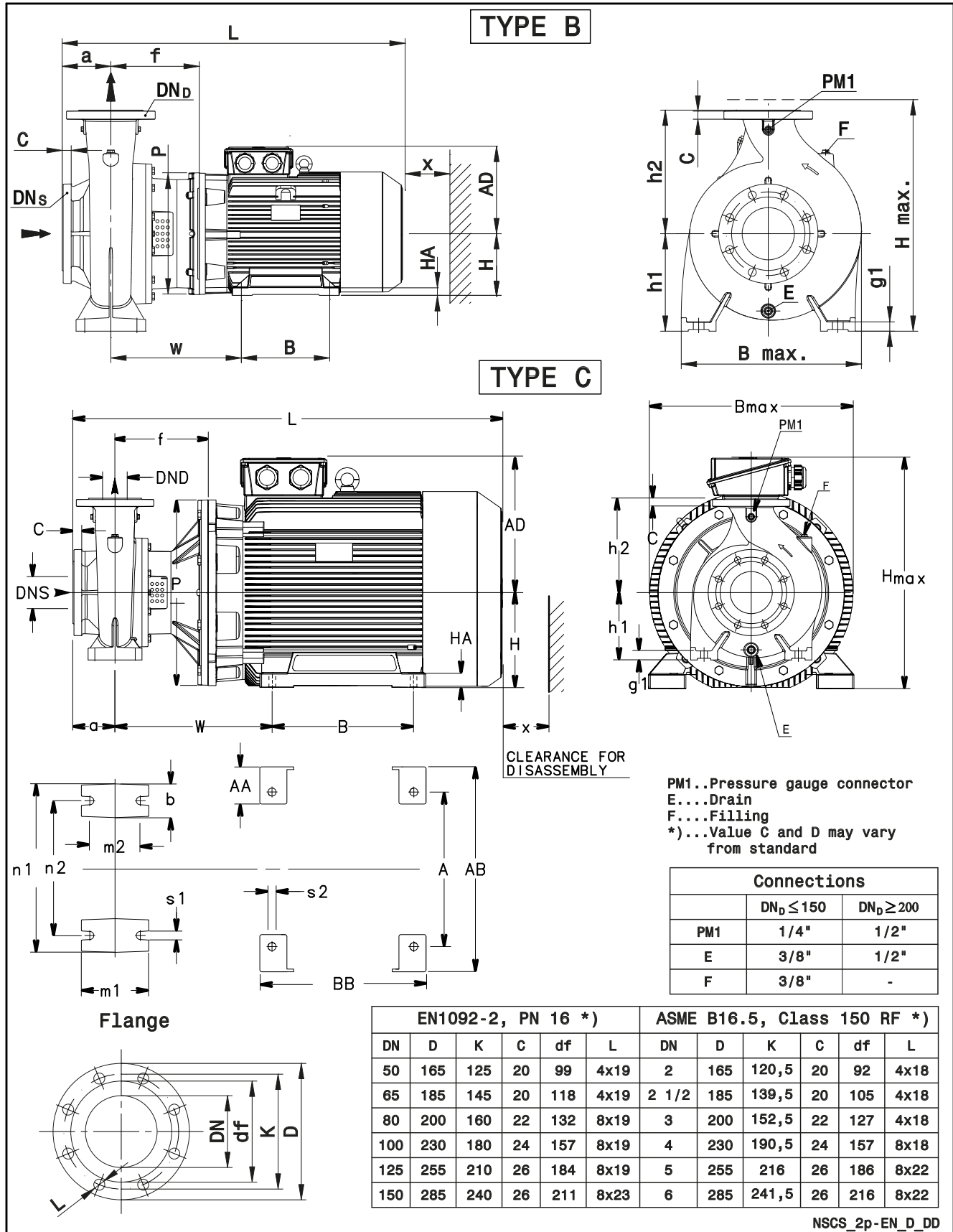
NSCS 32, 40, 50 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES



NSCS 65, 80 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES



**NSCS 100, 125 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES**



NSCS_2p-EN_D_DD

NSCS 100, 125 SERIES DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES

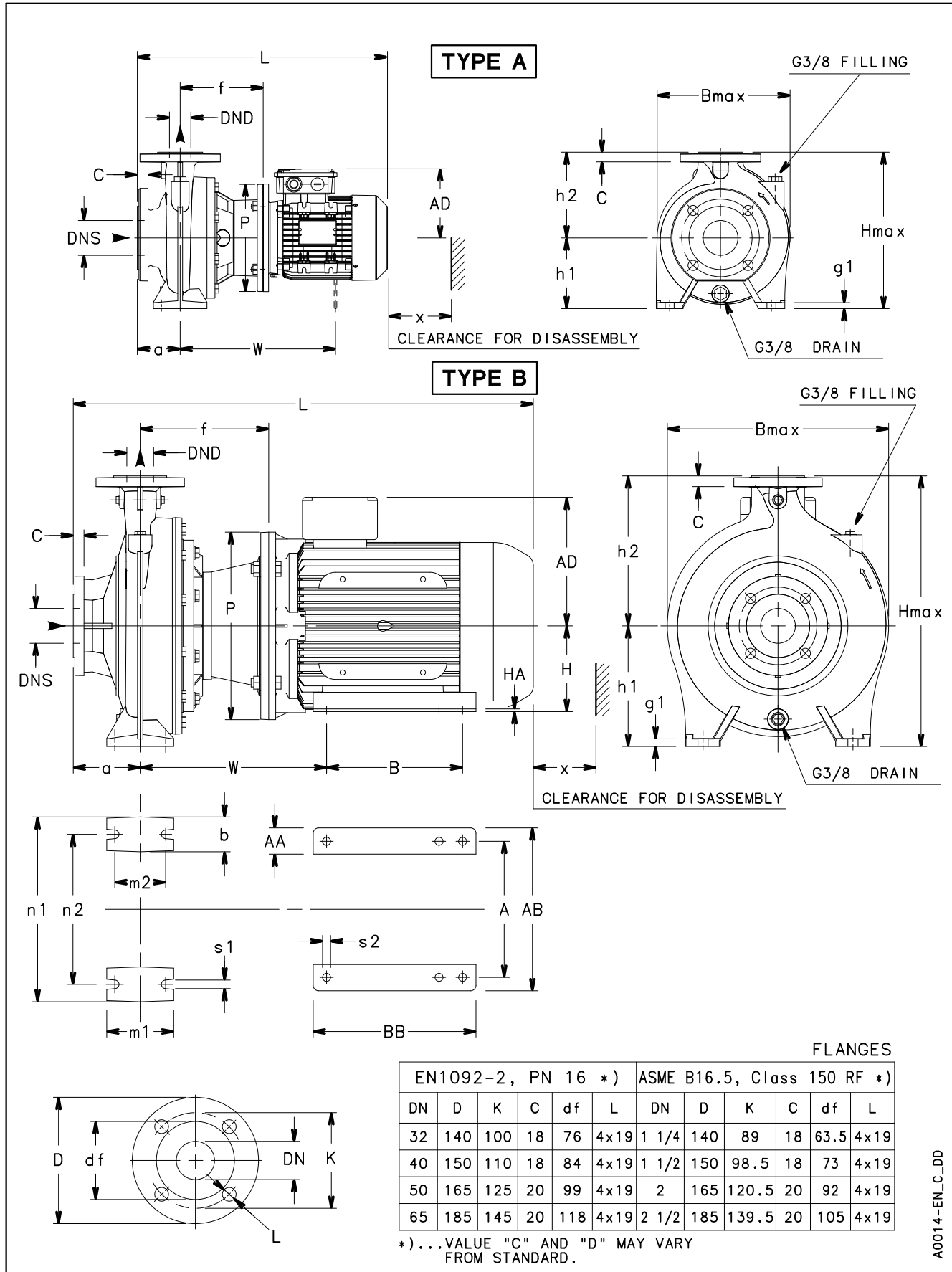
PUMP TYPE NSCS..2	TYPE	DIMENSIONS (mm)																												WEIGHT (kg)
		PUMP														MOTOR														
DNS	DND	a	b	f	g1	h1	h2	m1	m2	n1	n2	P	s1	W	x	A	AA	AB	AD	B	BB	H	HA	s2	B max	H max	L			
100-160/150/P	B	125	100	125	80	240	26	200	280	160	120	360	280	350	19	348	140	254	49	49	240	210	210	160	5	15	388	480	859	182
100-160/185/P	B	125	100	125	80	240	26	200	280	160	120	360	280	350	19	348	140	254	49	49	240	254	254	160	5	15	388	480	859	197
100-160/220/P	B	125	100	125	80	240	26	200	280	160	120	360	280	350	19	348	140	254	49	49	240	254	254	160	5	15	388	480	859	201
100-160/300/L	B	125	100	125	80	246	26	200	280	160	120	360	280	400	19	379	140	318	69	408	285	305	355	200	27	19	606	517	1042	275
100-200/300/L	B	125	100	125	80	246	26	200	280	160	120	360	280	400	19	379	140	318	69	408	285	305	355	200	27	19	606	517	1042	273
100-200/370/L	B	125	100	125	80	246	26	200	280	160	120	360	280	400	19	379	140	318	69	408	285	305	355	200	27	19	606	517	1042	313
100-200/450/L	C	125	100	125	80	246	26	200	280	160	120	360	280	450	19	395	140	356	84	470	309	311	361	225	30	19	606	609	1071	362
100-200/550/L	C	125	100	125	80	276	26	200	280	160	120	360	280	550	19	444	140	406	100	516	362	349	421	250	36	24	606	682	1167	510
100-250/750/L	C	125	100	140	80	276	26	225	280	160	120	400	315	550	19	466	140	457	110	606	400	368	440	280	44	24	606	752	1287	691
100-250/900/L	C	125	100	140	80	276	26	225	280	160	120	400	315	550	19	466	140	457	110	606	400	368	440	280	44	24	606	752	1287	811
125-200/450/L	B	150	125	140	80	246	26	250	315	160	120	400	315	450	19	395	140	356	84	470	309	311	361	225	30	19	606	634	1086	389
125-200/550/L	C	150	125	140	80	276	26	250	315	160	120	400	315	550	19	444	140	406	100	516	362	349	421	250	36	24	606	682	1182	536
125-200/750/L	C	150	125	140	80	276	26	250	315	160	120	400	315	550	19	466	140	457	110	606	400	368	440	280	44	24	606	752	1287	707
125-200/900/L	C	150	125	140	80	276	26	250	315	160	120	400	315	550	19	466	140	457	110	606	400	368	440	280	44	24	606	752	1287	827

For shims and supports see accessories section.

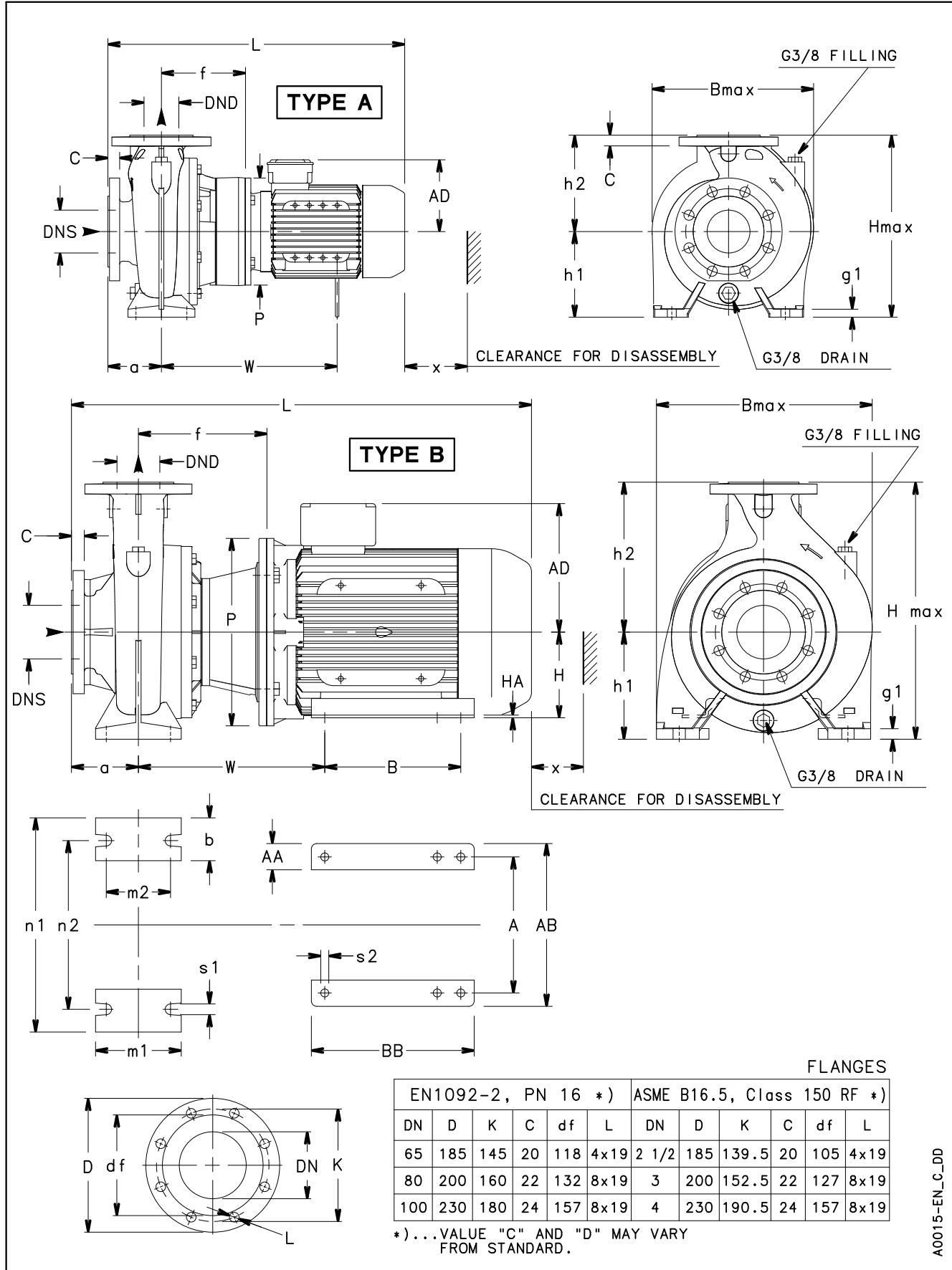
Nscs100-125_2p50-en_g_ld

NOTE: Pumps with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.

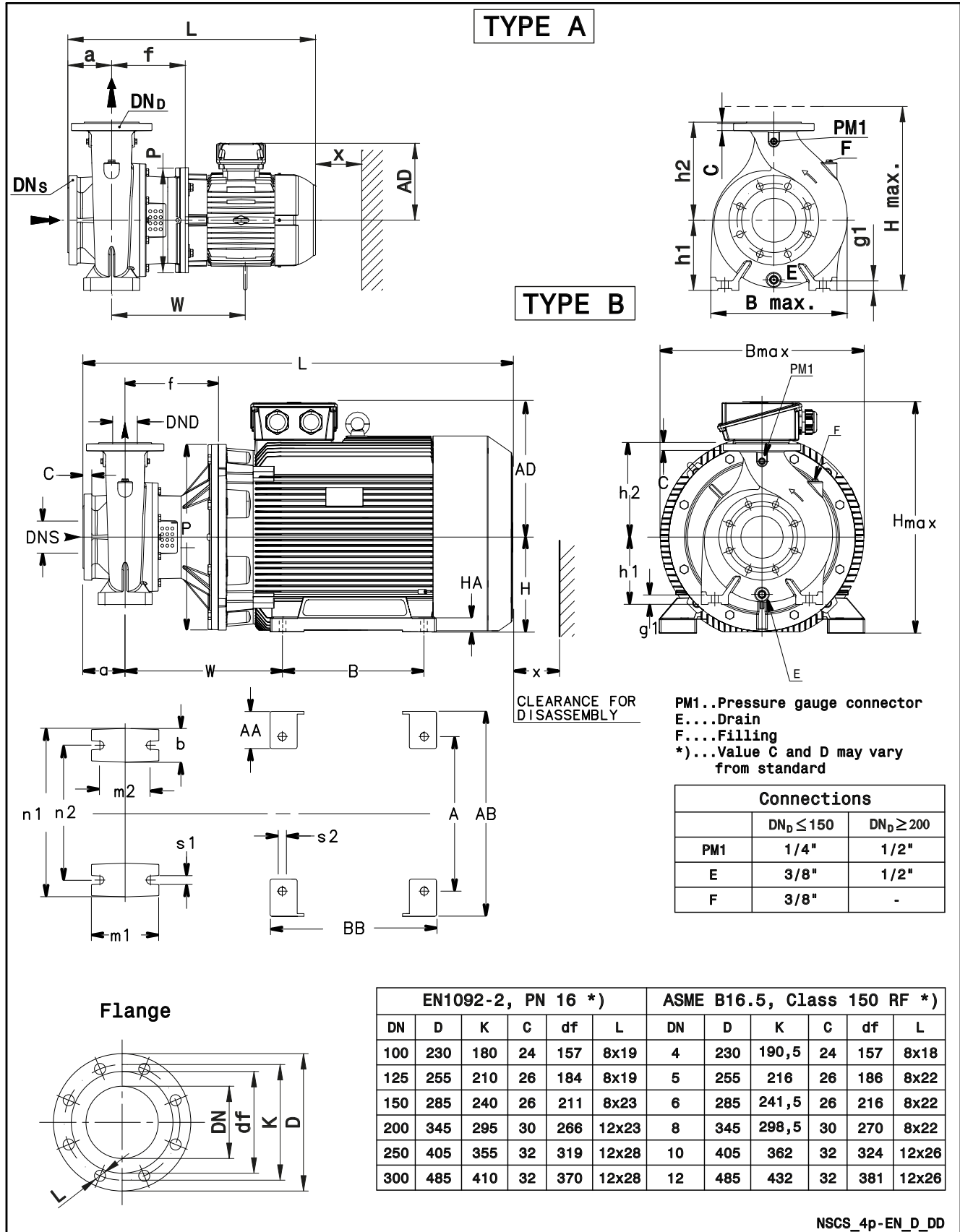
NSCS 32, 40, 50 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES



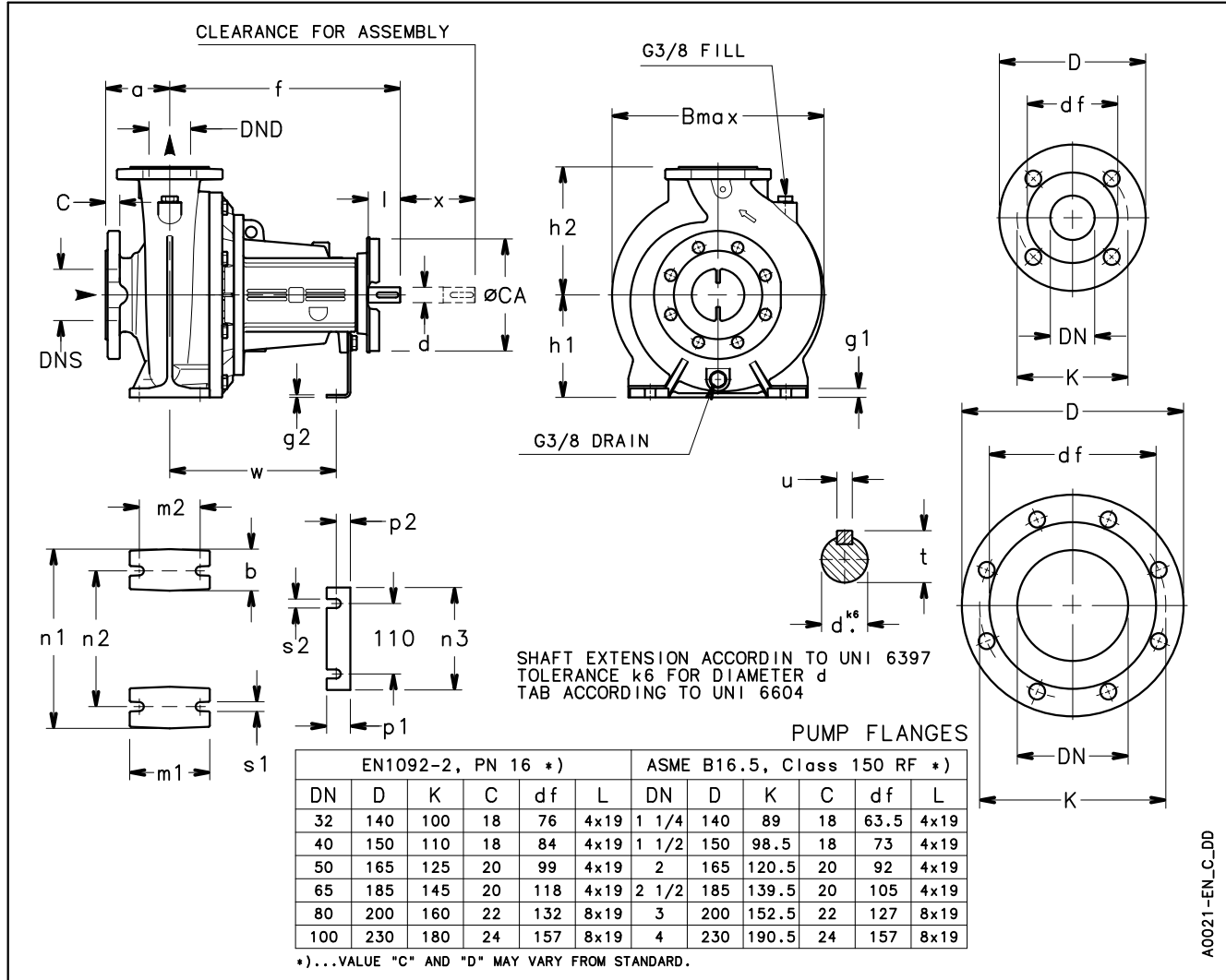
NSCS 65, 80 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES



**NSCS 100, 125, 150, 200, 250 SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES**



**NSC 32, 40, 50, 65, 80 SERIES
DIMENSIONS AND WEIGHTS (BARE SHAFT)**



A0021-EN_C_DD

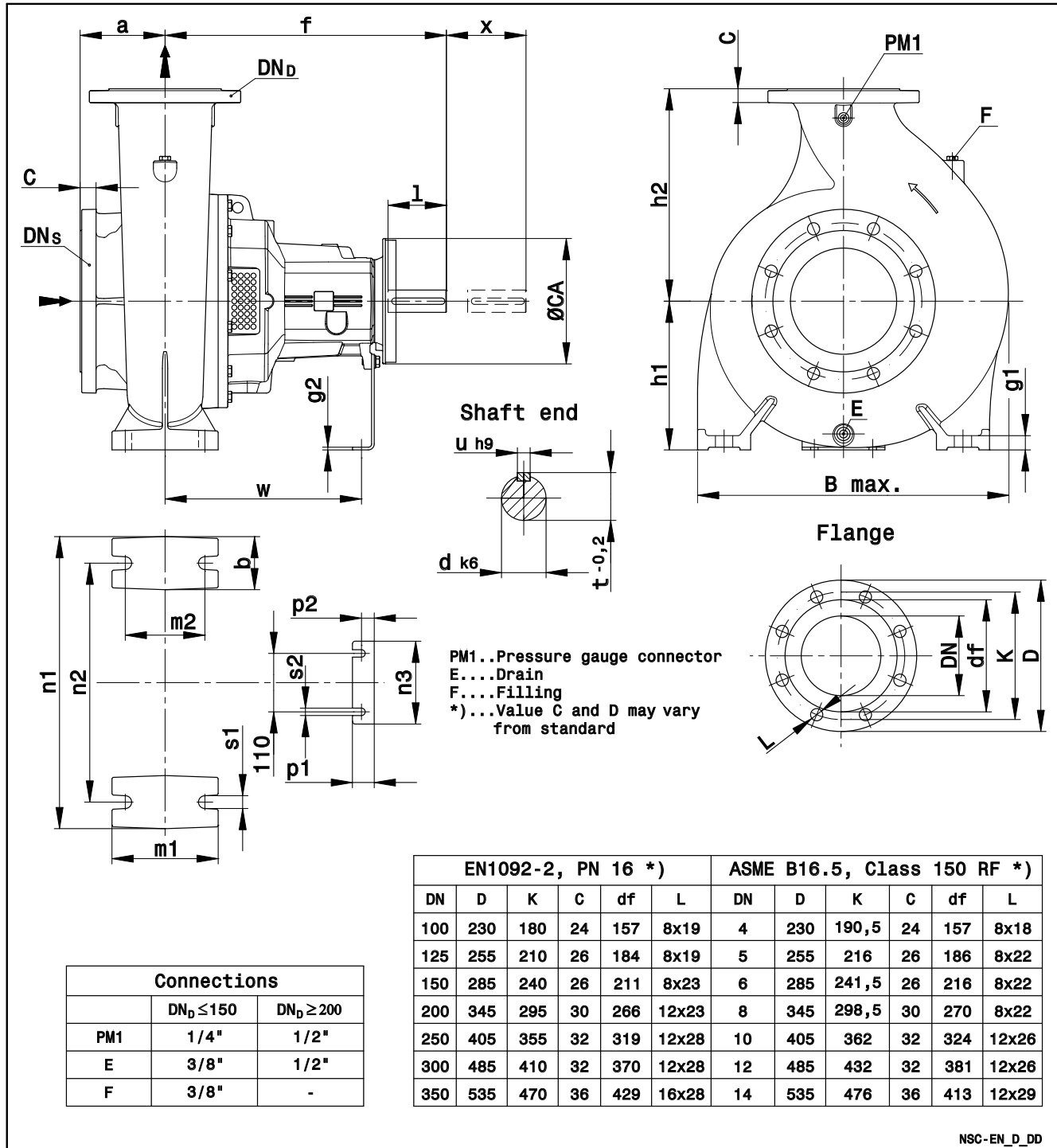
NSC 32, 40, 50, 65, 80 SERIES DIMENSIONS AND WEIGHTS (BARE SHAFT)

PUMP TYPE NSC (BARE SHAFT)	DIMENSIONS (mm)																												WEIGHT kg
	PUMP																				SHAFT					B max	x		
	DNS	DND	a	b	f	g1	g2	h1	h2	m1	m2	n1	n2	n3	p1	p2	s1	s2	W	ØCA	d	l	t	u					
32-125	50	32	80	50	360	12	4	112	140	100	70	190	140	160	37	22	14	14	260	160	24	50	27	8	239	100	30		
32-160	50	32	80	50	360	12	4	132	160	100	70	240	190	160	37	22	14	14	260	160	24	50	27	8	250	100	31		
32-200	50	32	80	50	360	12	4	160	180	100	70	240	190	160	37	22	14	14	260	160	24	50	27	8	286	100	38		
32-250	50	32	100	65	360	16	4	180	225	125	95	320	250	160	37	22	14	14	260	175	24	50	27	8	343	100	59		
40-125	65	40	80	50	360	12	4	112	140	100	70	210	160	160	37	22	14	14	260	160	24	50	27	8	240	100	31		
40-160	65	40	80	50	360	12	4	132	160	100	70	240	190	160	37	22	14	14	260	160	24	50	27	8	253	100	32		
40-200	65	40	100	50	360	12	4	160	180	100	70	265	212	160	37	22	14	14	260	160	24	50	27	8	294	100	40		
40-250	65	40	100	65	360	16	4	180	225	125	95	320	250	160	37	22	14	14	260	175	24	50	27	8	343	100	60		
50-125	65	50	100	50	360	12	4	132	160	100	70	240	190	160	37	22	14	14	260	160	24	50	27	8	258	100	34		
50-160	65	50	100	50	360	12	4	160	180	100	70	265	212	160	37	22	14	14	260	160	24	50	27	8	290	100	41		
50-200	65	50	100	50	360	12	4	160	200	100	70	265	212	160	37	22	14	14	260	160	24	50	27	8	303	100	42		
50-250	65	50	100	65	360	16	4	180	225	125	95	320	250	160	37	22	14	14	260	175	24	50	27	8	361	100	61		
50-315	65	50	125	65	470	14	5	225	280	125	95	345	280	156	41	24	15	14	340	190	32	80	35	10	414	140	94		
65-125	80	65	100	65	360	16	4	160	180	125	95	280	212	160	37	22	14	14	260	160	24	50	27	8	305	100	45		
65-160	80	65	100	65	360	16	4	160	200	125	95	280	212	160	37	22	14	14	260	175	24	50	27	8	338	100	60		
65-200	80	65	100	65	360	16	4	180	225	125	95	320	250	160	37	22	14	14	260	175	24	50	27	8	350	140	63		
65-250	80	65	100	80	470	21	4	200	250	160	120	360	280	160	37	22	20	14	340	190	32	80	35	10	375	140	81		
65-315	80	65	125	80	470	20	5	225	280	160	120	400	315	156	41	24	19	14	340	190	32	80	35	10	437	140	102		
80-160	100	80	125	65	360	16	4	180	225	125	95	320	250	160	37	22	14	14	260	160	24	50	27	8	343	140	66		
80-200	100	80	125	65	470	16	4	180	250	125	95	345	280	160	37	22	14	14	340	190	32	80	35	10	365	140	83		
80-250	100	80	125	80	470	21	4	200	280	160	120	400	315	160	37	22	20	14	340	190	32	80	35	10	405	140	86		
80-315	100	80	125	80	470	26	5	250	315	160	120	400	315	156	41	24	19	14	340	190	32	80	35	10	478	140	118		
80-316	100	80	125	80	530	26	5	250	315	160	120	400	315	156	41	24	19	14	370	230	42	110	45	12	478	140	140		
80-400	100	80	125	80	530	26	5	280	355	160	120	435	355	156	41	24	19	14	370	230	42	110	45	12	540	140	154		

NOTE: Pumps with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.

Nsc32-80bs-en_b_ld

**NSC 100, 125, 150, 200, 250, 300 SERIES
DIMENSIONS AND WEIGHTS (BARE SHAFT)**



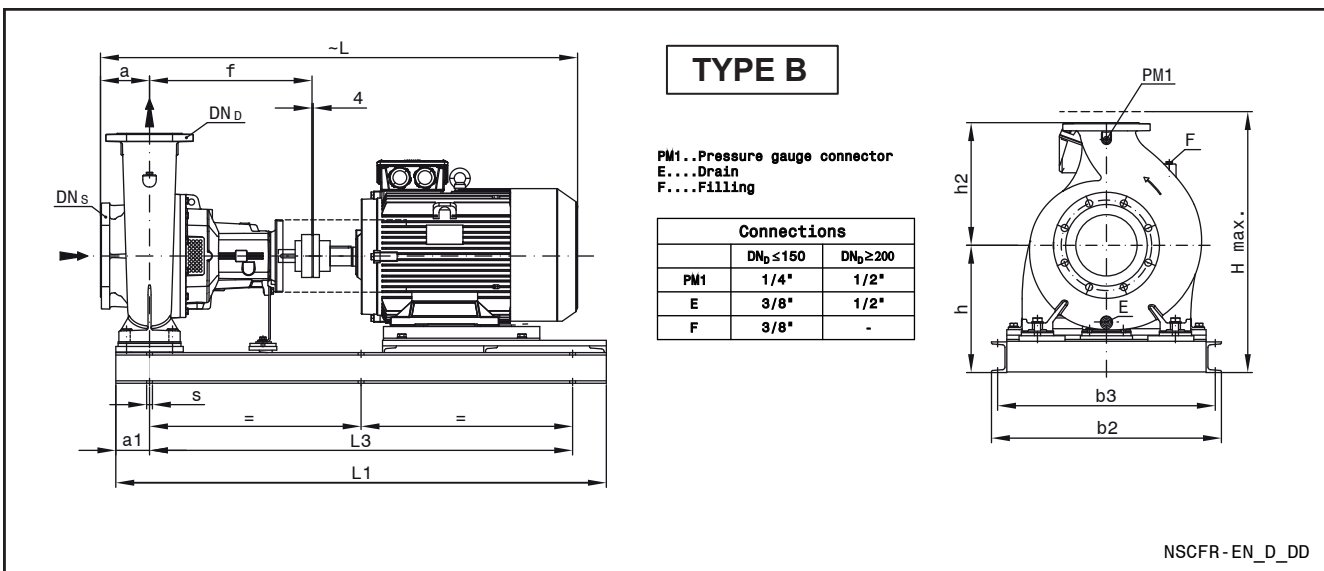
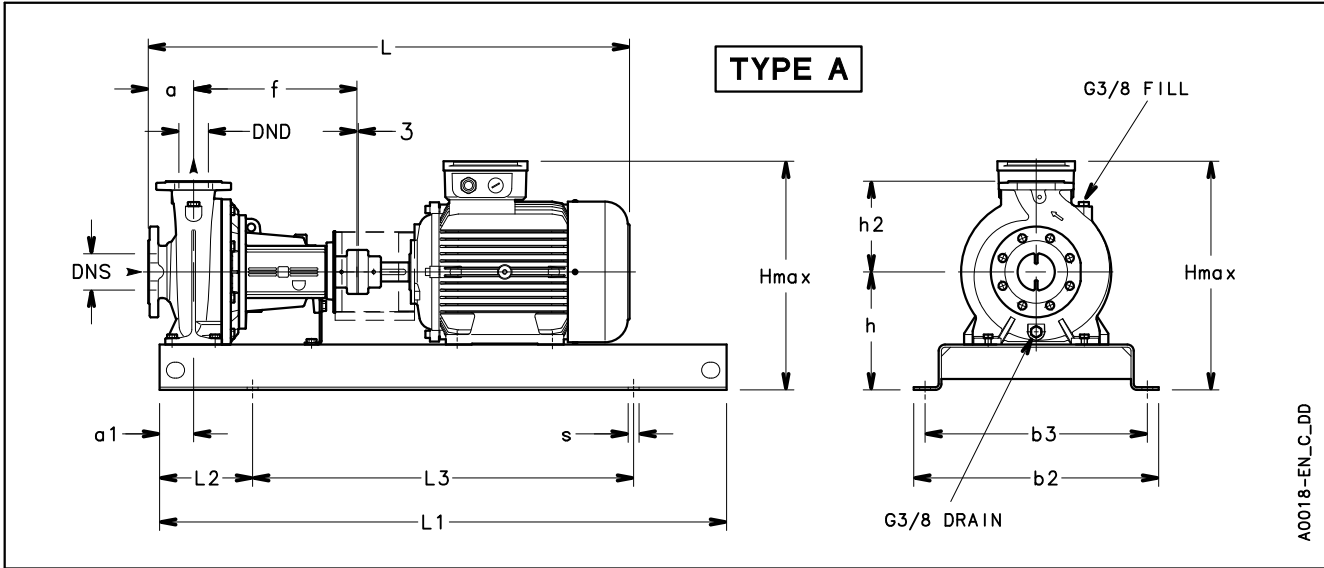
NSC 100, 125, 150, 200, 250, 300 SERIES DIMENSIONS AND WEIGHTS (BARE SHAFT)

PUMP TYPE NSC (BARE SHAFT)	DIMENSIONS (mm)																												WEIGHT (kg) G
	DNS	DND	a	b	f	g1	g2	h1	h2	m1	m2	n1	n2	n3	p1	p2	s1	s2	W	ØCA	d	l	t	u	B max	x			
100-160	125	100	125	80	470	26	5	200	280	160	120	360	280	156	41	24	19	14	340	190	32	80	35	10	388	140	82		
100-200	125	100	125	80	470	26	5	200	280	160	120	360	280	156	41	24	19	14	340	190	32	80	35	10	390	140	90		
100-250	125	100	140	80	470	26	5	225	280	160	120	400	315	156	41	24	19	14	340	190	32	80	35	10	431	140	100		
100-315	125	100	140	80	470	26	5	250	315	160	120	400	315	156	41	24	19	14	340	190	32	80	35	10	482	140	116		
100-316	125	100	140	80	530	26	5	250	315	160	120	400	315	156	41	24	19	14	370	230	42	110	45	12	482	140	143		
100-400	125	100	140	100	530	26	5	280	355	200	150	500	400	156	41	24	23	14	370	230	42	110	45	12	569	140	178		
125-200	150	125	140	80	470	26	5	250	315	160	120	400	315	156	41	24	19	14	340	190	32	80	35	10	468	140	112		
125-250	150	125	140	80	470	26	5	250	355	160	120	400	315	156	41	24	19	14	340	190	32	80	35	10	470	140	112		
125-315	150	125	140	100	530	26	5	280	355	200	150	500	400	156	41	24	23	14	370	230	42	110	45	12	518	140	152		
125-400	150	125	140	100	530	26	5	315	400	200	150	500	400	156	41	24	23	14	370	230	42	110	45	12	607	140	200		
150-200	200	150	160	100	470	26	5	280	400	200	150	550	450	156	41	24	23	14	340	190	32	80	35	10	603	140	166		
150-250	200	150	160	100	530	26	5	280	400	200	150	500	400	156	41	24	23	14	370	230	42	110	45	12	569	140	180		
150-315	200	150	160	100	530	26	5	280	400	200	150	550	450	156	41	24	23	14	370	230	42	110	45	12	586	140	186		
150-400	200	150	160	100	530	26	5	315	450	200	150	550	450	156	41	24	23	14	370	230	42	110	45	12	621	140	228		
150-500	200	150	180	110	770	35	8	400	500	300	250	710	600	170	58	33	28	18	525	310	60	140	64	18	751	250	408		
200-250	250	200	180	100	530	26	5	355	475	200	150	550	450	156	41	24	23	14	370	230	42	110	45	12	655	200	230		
200-315	250	200	180	100	530	26	5	355	450	200	150	550	450	156	41	24	23	14	370	230	42	110	45	12	645	200	234		
200-400	250	200	180	110	770	35	8	400	500	300	250	710	600	170	58	33	28	18	525	310	60	140	64	18	735	250	363		
200-500	250	200	200	110	770	35	8	450	560	300	250	710	600	170	58	33	28	18	525	310	60	140	64	18	761	250	400		
250-315	300	250	250	110	530	35	5	400	500	300	250	710	600	156	41	24	28	14	370	230	42	110	45	12	767	200	316		
250-400	300	250	200	110	770	35	8	400	560	300	250	710	600	170	58	33	28	18	525	310	60	140	64	18	754	250	400		
250-500	300	250	200	110	770	35	8	450	670	300	250	710	600	170	58	33	28	18	525	310	60	140	64	18	776	250	451		
300-350	350	300	250	130	800	41	8	450	600	350	290	800	670	170	58	33	32	18	555	310	60	140	64	18	895	300	544		
300-400	350	300	250	130	800	41	8	450	600	350	290	800	670	170	58	33	32	18	555	310	60	140	64	18	854	300	548		
300-450	350	300	250	130	800	41	8	475	630	350	290	800	670	170	58	33	32	18	555	310	60	140	64	18	873	300	578		

NOTE: Pumps with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.

Nsc100-300bs-en_b_td

NSCF 32 SERIES (MOUNTED ON BASE) DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES



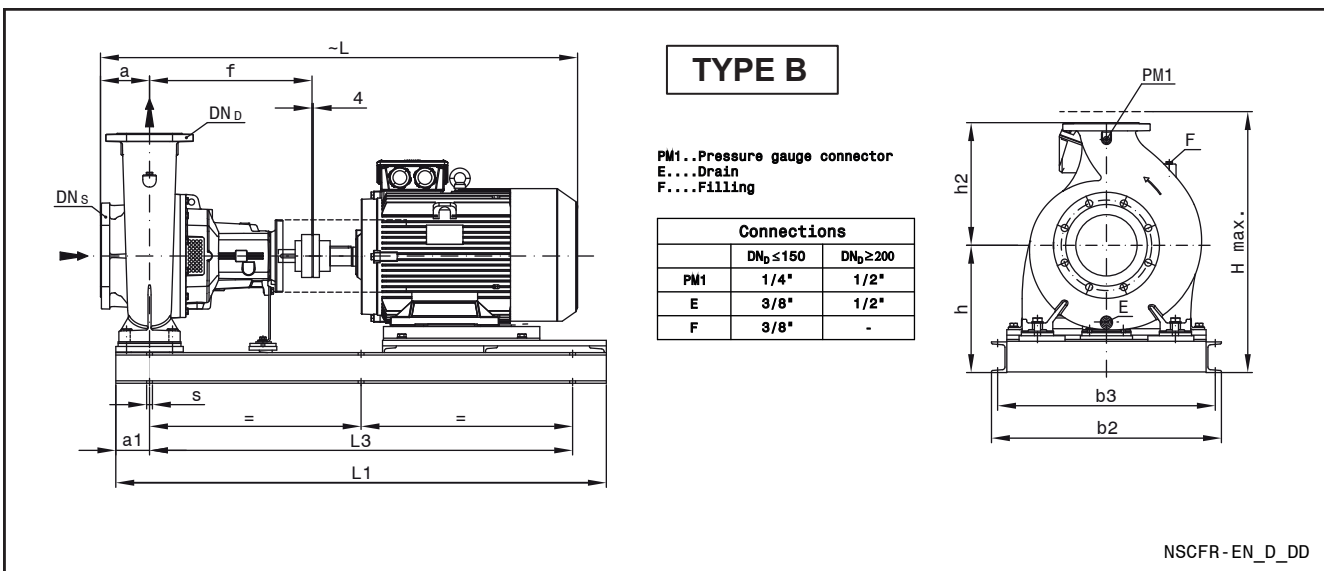
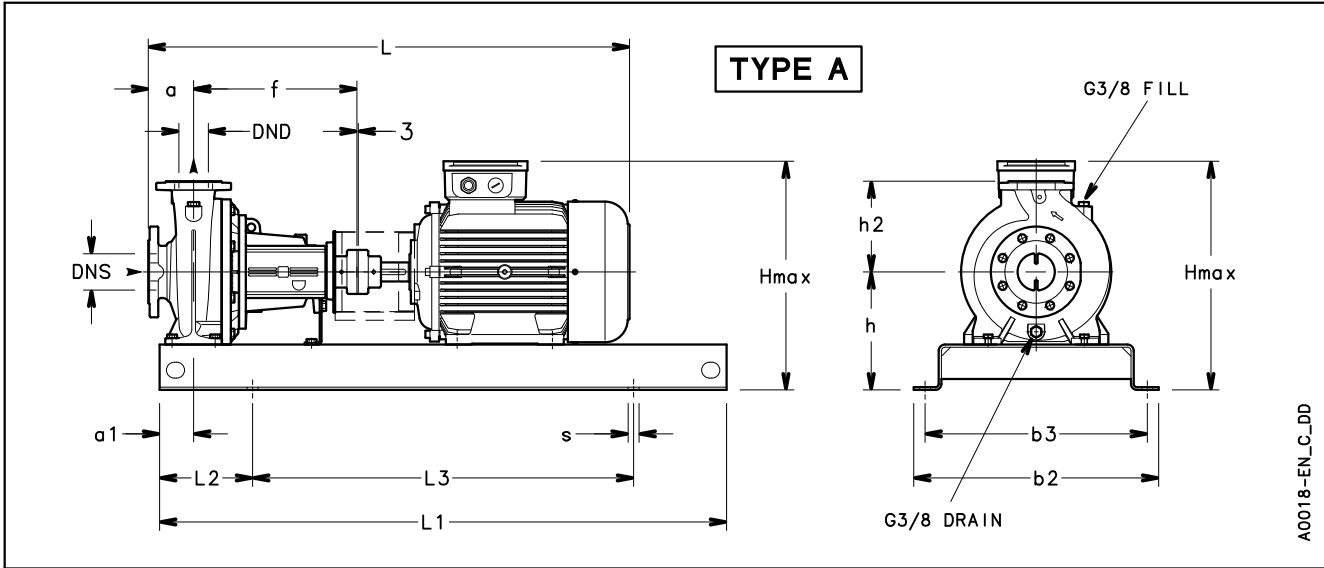
PUMP TYPE NSCF..2	TYPE	DIMENSIONS (mm)													H max	s FOR SCREWS	WEIGHT kg	COUPLING TYPE
		DN _S	DND	a	a1	b2	b3	f	h	h2	L	L1	L2	L3				
32-125/11/S	A	50	32	80	60	360	320	360	212	140	746	800	130	540	352	4xØ19 (M16)	65	B68B
32-125/15/P	A	50	32	80	60	390	350	360	212	140	791	900	150	600	352	4xØ19 (M16)	75	B68C
32-125/22/P	A	50	32	80	60	390	350	360	212	140	791	900	150	600	352	4xØ19 (M16)	77	B68C
32-125/30/P	A	50	32	80	60	390	350	360	212	140	822	900	150	600	366	4xØ19 (M16)	84	B80A
32-160/22/P	A	50	32	80	60	390	350	360	232	160	791	900	150	600	392	4xØ19 (M16)	78	B68C
32-160/30/P	A	50	32	80	60	390	350	360	232	160	822	900	150	600	392	4xØ19 (M16)	85	B80A
32-160/40/P	A	50	32	80	60	390	350	360	232	160	825	900	150	600	400	4xØ19 (M16)	90	B80A
32-160/55/P	A	50	32	80	60	450	400	360	232	160	890	1000	170	660	423	4xØ24 (M20)	119	B95A
32-200/30/P	A	50	32	80	60	390	350	360	260	180	822	900	150	600	440	4xØ19 (M16)	92	B80A
32-200/40/P	A	50	32	80	60	390	350	360	260	180	825	900	150	600	440	4xØ19 (M16)	97	B80A
32-200/55/P	A	50	32	80	60	450	400	360	260	180	890	1000	170	660	451	4xØ24 (M20)	126	B95A
32-200/75/P	A	50	32	80	60	450	400	360	260	180	890	1000	170	660	451	4xØ24 (M20)	130	B95A
32-250/75/P	A	50	32	100	75	490	440	360	280	225	910	1120	190	740	505	4xØ24 (M20)	157	B95A
32-250/110A/P	A	50	32	100	75	540	490	360	280	225	1067	1250	205	840	520	4xØ24 (M20)	187	B95B
32-250/110/P	A	50	32	100	75	540	490	360	280	225	1067	1250	205	840	520	4xØ24 (M20)	187	B95B
32-250/150/P	A	50	32	100	75	540	490	360	280	225	1067	1250	205	840	520	4xØ24 (M20)	204	B95B

NOTE: Pumps with flanges according to EN 1092-2 as standard.

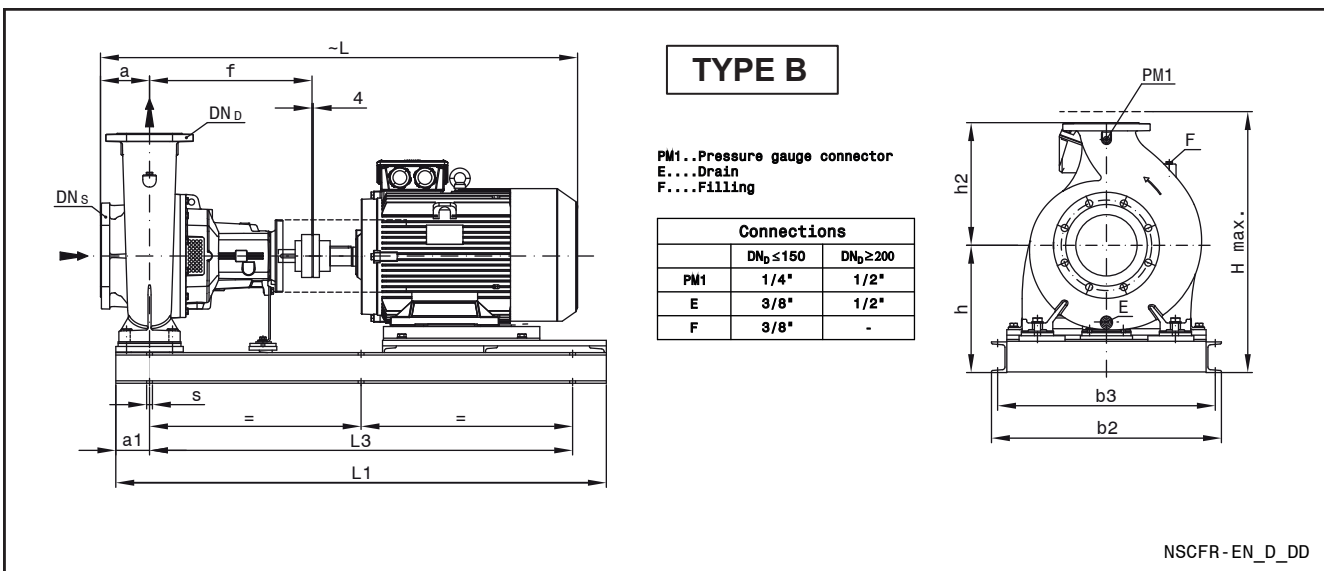
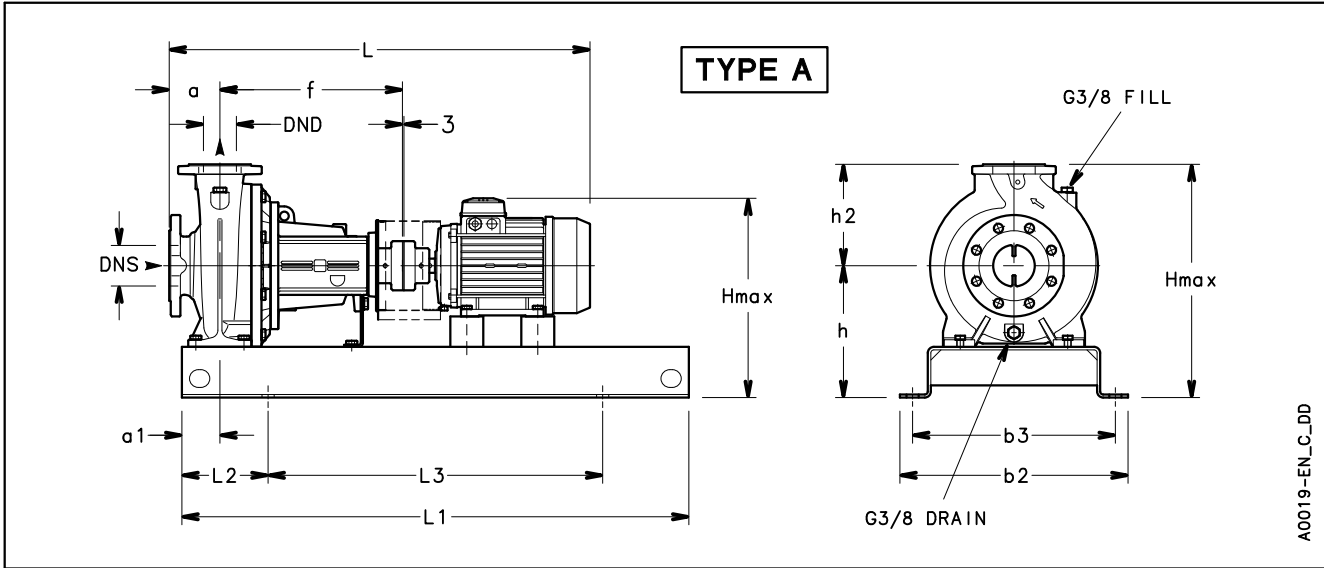
Nscf32_2p50-en_d_td

Available ASME B16.5 version on request. For flanges dimensions see drawing.

**NSCF 80, 100, 125 SERIES (MOUNTED ON BASE)
DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES**



NSCF 32 SERIES (MOUNTED ON BASE) DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES



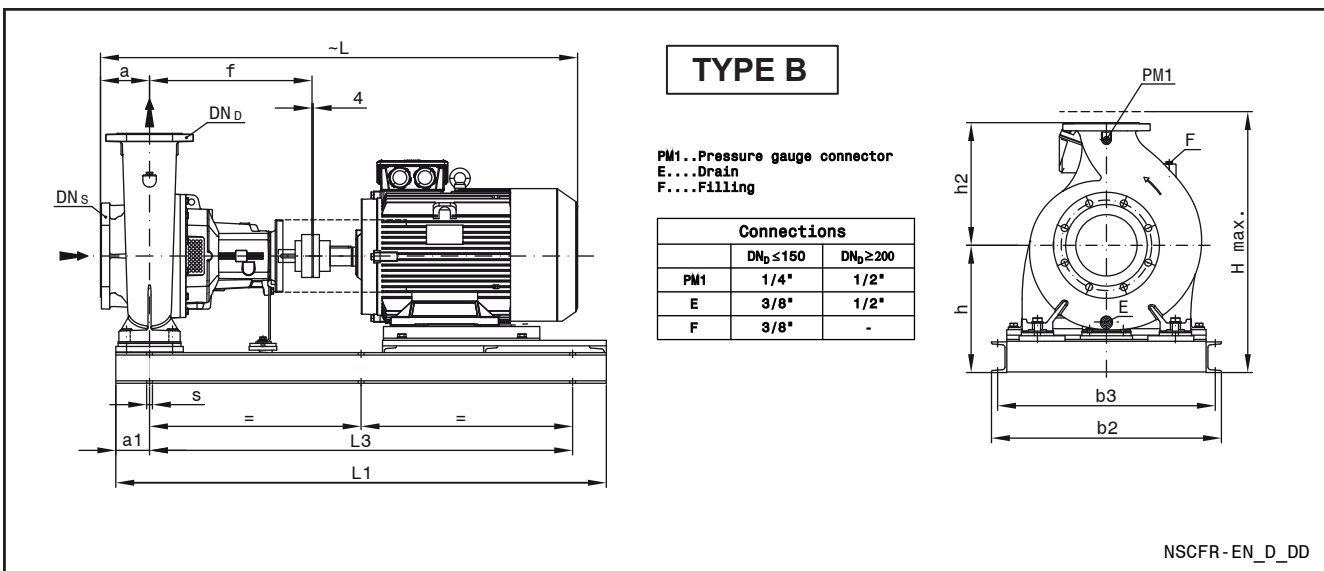
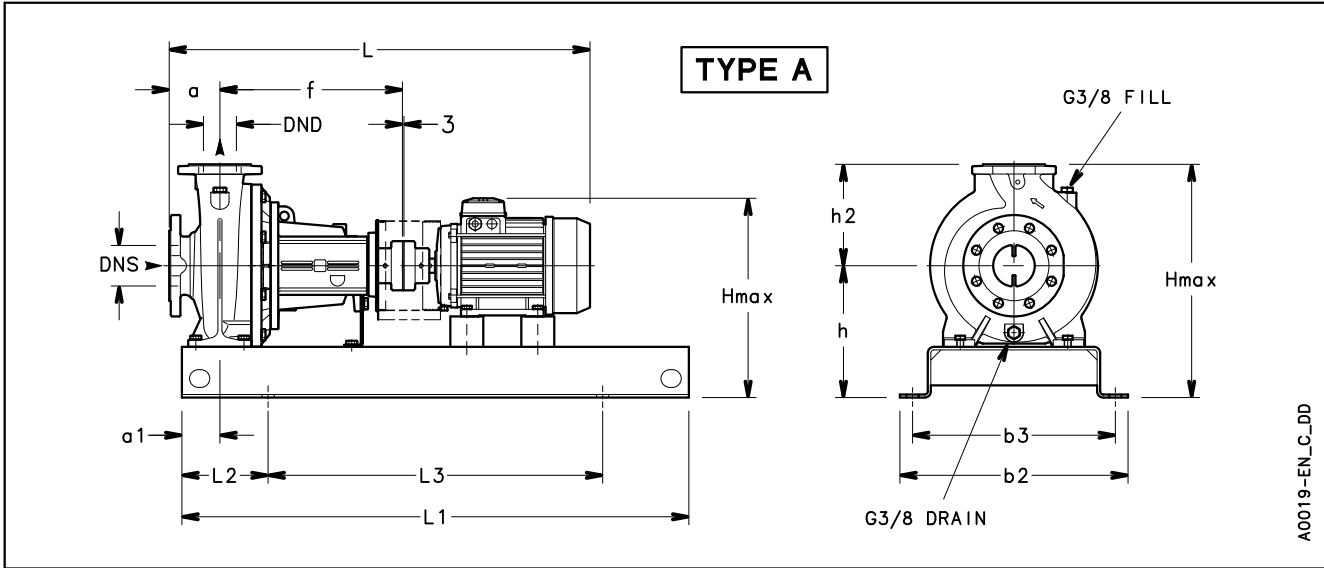
PUMP TYPE NSCF..4	TYPE	DIMENSIONS (mm)														WEIGHT kg	COUPLING TYPE	
		DN _S	DN _D	a	a1	b2	b3	f	h	h2	L	L1	L2	L3	H max			s FOR SCREWS
32-200/07/X	A	50	32	80	60	360	320	360	260	180	714	800	130	540	440	4xØ19 (M16)	76	B68B
32-200/11/P	A	50	32	80	60	390	350	360	260	180	791	900	150	600	440	4xØ19 (M16)	85	B68C
32-250/11A/P	A	50	32	100	75	450	400	360	280	225	811	1000	170	660	505	4xØ24 (M20)	112	B68C
32-250/11/P	A	50	32	100	75	450	400	360	280	225	811	1000	170	660	505	4xØ24 (M20)	112	B68C
32-250/15/P	A	50	32	100	75	450	400	360	280	225	811	1000	170	660	505	4xØ24 (M20)	117	B68C
32-250/22/P	A	50	32	100	75	450	400	360	280	225	888	1000	170	660	505	4xØ24 (M20)	127	B80A

NOTE: Pumps with flanges according to EN 1092-2 as standard.

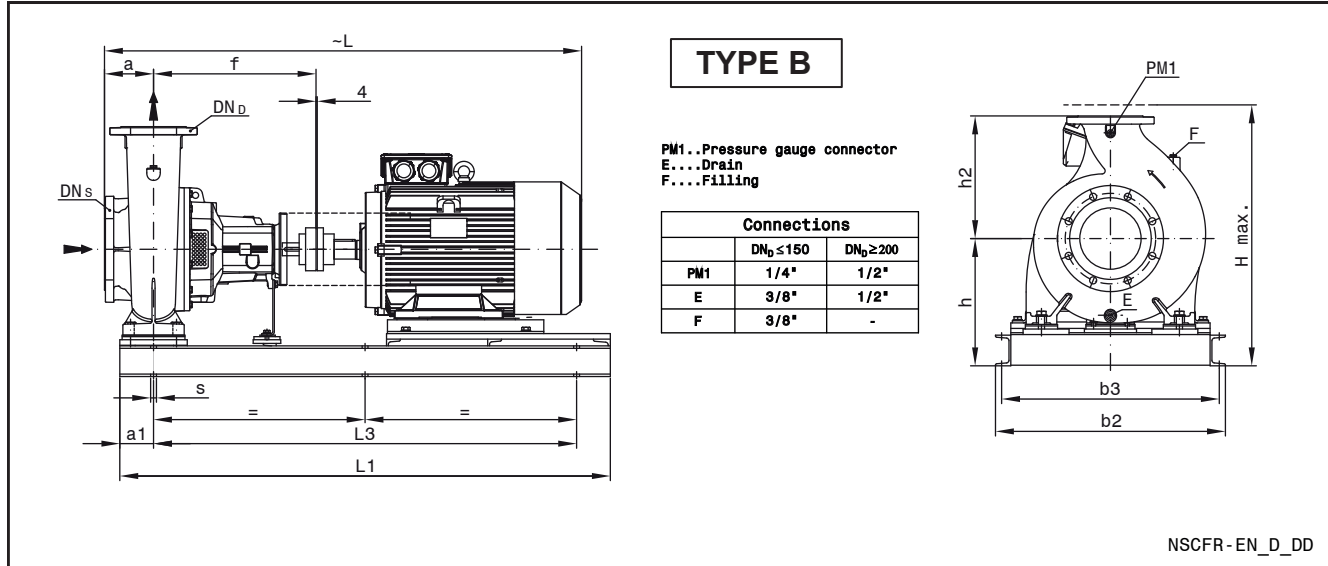
Nscf32_4p50-en_d_td

Available ASME B16.5 version on request. For flanges dimensions see drawing.

**NSCF 80, 100, 125 SERIES (MOUNTED ON BASE)
DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES**



NSCF 150 SERIES (MOUNTED ON BASE) DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES



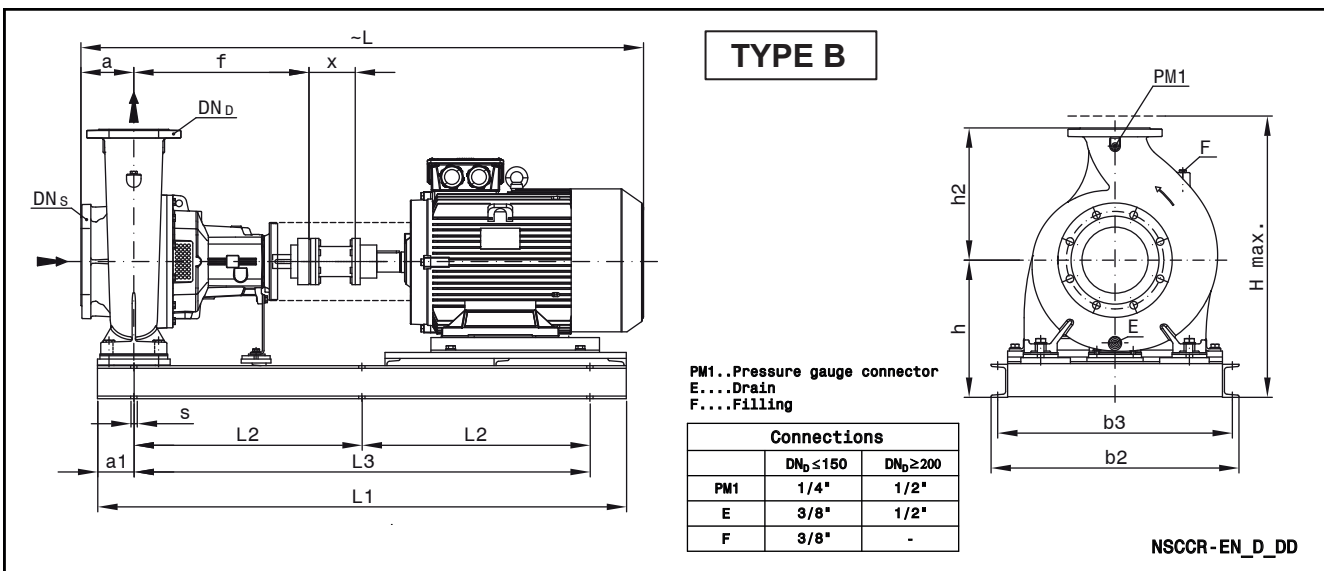
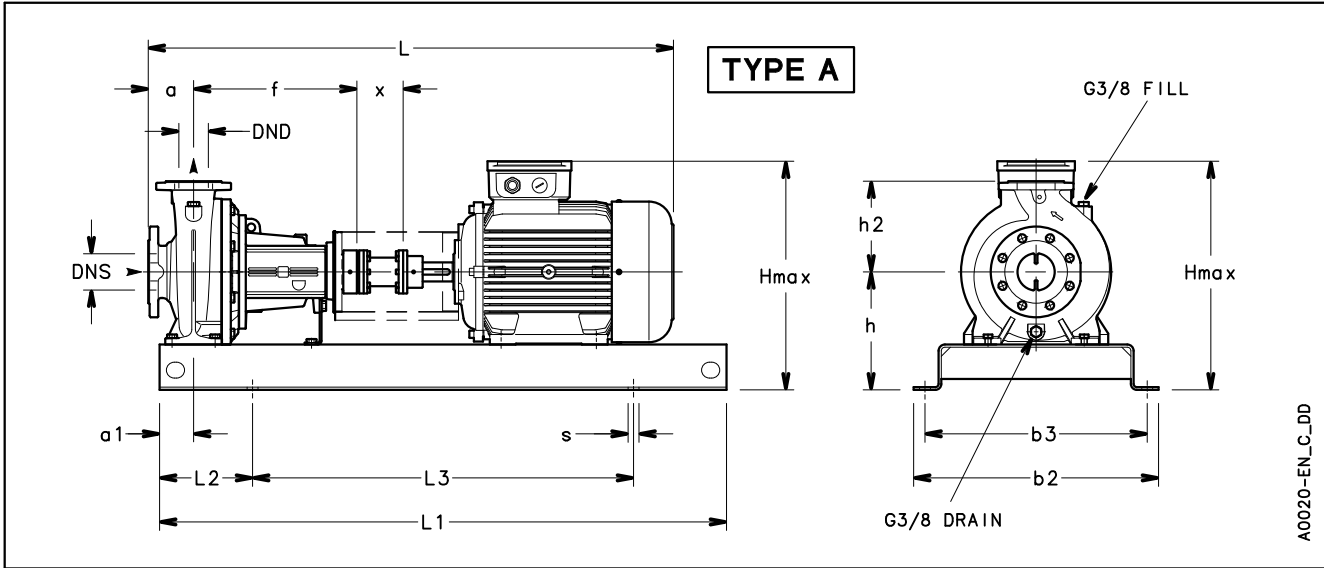
PUMP TYPE NSCF..4	TYPE	DIMENSIONS (mm)														H max	s FOR SCREWS	WEIGHT (kg) G	COUPLING TYPE
		DN _S	DN _D	a	a1	b2	b3	f	h	h2	L	L1	L2	L3					
150-200/110A/P	B	200	150	160	110	670	630	470	385	400	1238	1330	110	1110	785	6xØ19 (M16)	357	B95E	
150-200/110/P	B	200	150	160	110	670	630	470	385	400	1238	1330	110	1110	785	6xØ19 (M16)	357	B95E	
150-200/150A/P	B	200	150	160	110	670	630	470	385	400	1238	1330	110	1110	785	6xØ19 (M16)	402	B110E	
150-200/150/P	B	200	150	160	110	670	630	470	385	400	1238	1330	110	1110	785	6xØ19 (M16)	402	B110E	
150-250/150/P	B	200	150	160	110	670	630	530	385	400	1298	1430	110	1210	785	6xØ19 (M16)	413	B110C	
150-250/185/L	B	200	150	160	110	670	630	530	400	400	1395	1430	110	1210	800	6xØ19 (M16)	434	B110D	
150-250/220/L	B	200	150	160	110	670	630	530	400	400	1395	1430	110	1210	653	6xØ19 (M16)	450	B110D	
150-250/300/L	B	200	150	160	110	670	630	530	420	400	1475	1430	110	1210	705	6xØ19 (M16)	509	B125C	
150-315/300/L	B	200	150	160	110	670	630	530	420	400	1475	1430	110	1210	705	6xØ19 (M16)	515	B125C	
150-315/370/L	B	200	150	160	110	750	710	530	415	400	1534	1600	110	1380	724	6xØ19 (M16)	622	B140B	
150-315/450/L	B	200	150	160	110	750	710	530	415	400	1534	1600	110	1380	724	6xØ19 (M16)	654	B140B	
150-400/450/L	B	200	150	160	110	750	710	530	440	450	1534	1600	110	1380	749	6xØ19 (M16)	698	B140B	
150-400/550/L	B	200	150	160	110	750	710	530	440	450	1600	1600	110	1380	802	6xØ19 (M16)	851	B160B	
150-400/750/L	B	200	150	160	110	750	710	530	440	450	1705	1600	110	1380	840	6xØ19 (M16)	946	B180B	
150-400/900/L	B	200	150	160	110	750	710	530	440	450	1705	1600	110	1380	840	6xØ19 (M16)	1040	B180B	
150-400/1100/L	B	200	150	160	110	750	710	530	440	450	1705	1600	110	1380	840	6xØ19 (M16)	1114	B180B	
150-500/900/L	B	200	150	180	165	860	810	770	565	500	1965	1750	165	1420	965	6xØ26 (M20)	1273	B180C	
150-500/1100/L	B	200	150	180	165	860	810	770	585	500	1965	2000	165	1670	985	6xØ26 (M20)	1534	B200A	
150-500/1320/L	B	200	150	180	165	860	810	770	585	500	2109	2000	165	1670	1079	6xØ26 (M20)	1648	B200A	
150-500/1600/L	B	200	150	180	165	860	810	770	585	500	2109	2000	165	1670	1079	6xØ26 (M20)	1670	B200A	
150-500/2000/L	B	200	150	180	165	860	810	770	585	500	2256	2000	165	1670	1079	6xØ26 (M20)	1825	B225A	

NOTE: Pumps with flanges according to EN 1092-2 as standard.

Nscf150_4p50-en_e_td

Available ASME B16.5 version on request. For flanges dimensions see drawing.

NSCC 32 SERIES (SPACER COUPLING) DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES



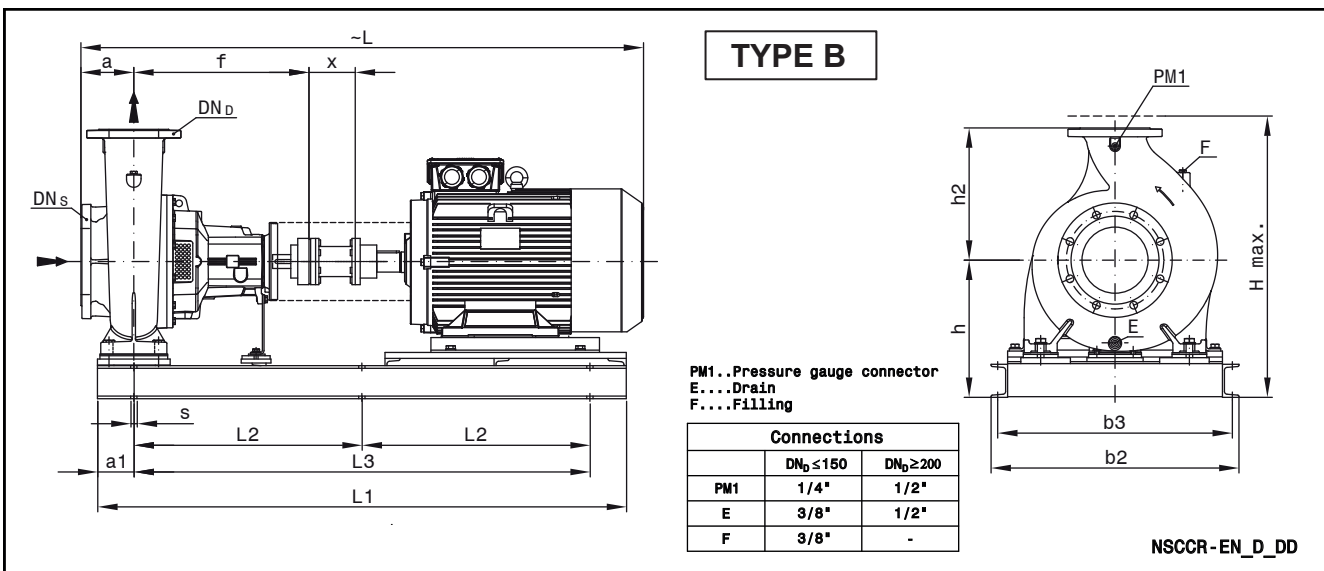
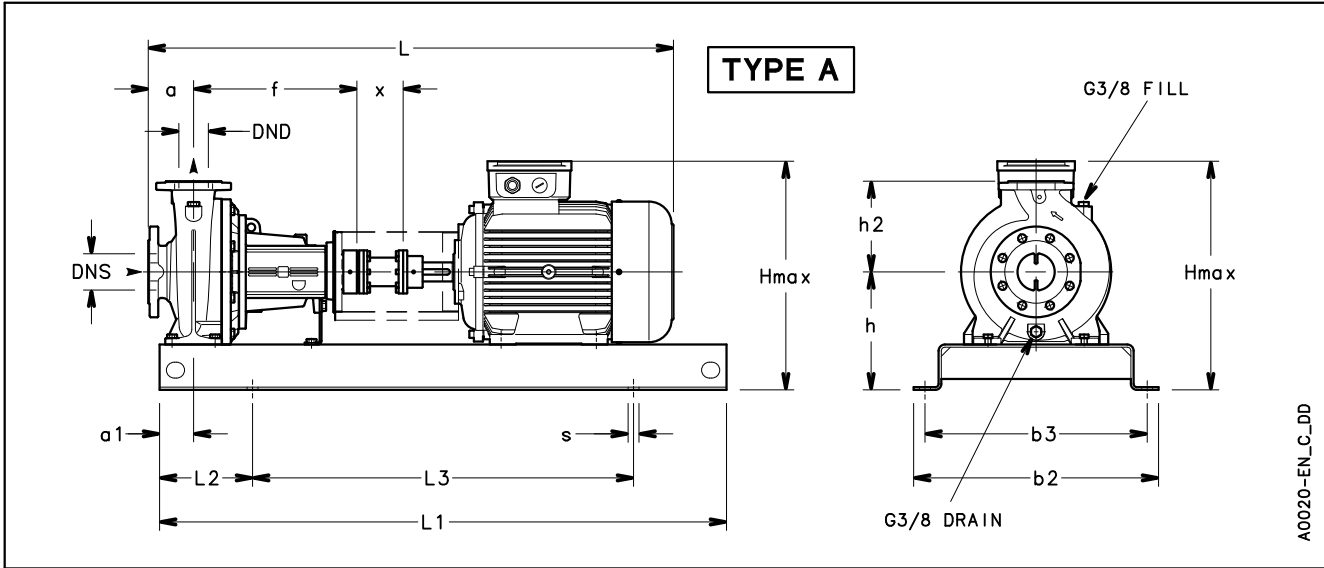
PUMP TYPE NSCC..2	TYPE	DIMENSIONS (mm)															WEIGHT kg	COUPLING TYPE	
		DN _S	DN _D	a	a1	b2	b3	f	h	h2	L	L1	L2	L3	x	H max			s FOR SCREWS
32-125/11/S	A	50	32	80	60	360	320	360	212	140	843	800	130	540	100	352	4xØ19 (M16)	68	H80A
32-125/15/P	A	50	32	80	60	390	350	360	212	140	888	900	150	600	100	352	4xØ19 (M16)	78	H80B
32-125/22/P	A	50	32	80	60	390	350	360	212	140	888	900	150	600	100	352	4xØ19 (M16)	80	H80B
32-125/30/P	A	50	32	80	60	390	350	360	212	140	919	900	150	600	100	366	4xØ19 (M16)	87	H80C
32-160/22/P	A	50	32	80	60	390	350	360	232	160	888	900	150	600	100	392	4xØ19 (M16)	81	H80B
32-160/30/P	A	50	32	80	60	390	350	360	232	160	919	900	150	600	100	392	4xØ19 (M16)	88	H80C
32-160/40/P	A	50	32	80	60	390	350	360	232	160	922	900	150	600	100	400	4xØ19 (M16)	93	H80C
32-160/55/P	A	50	32	80	60	450	400	360	232	160	987	1000	170	660	100	423	4xØ24 (M20)	122	H95A
32-200/30/P	A	50	32	80	60	390	350	360	260	180	919	900	150	600	100	440	4xØ19 (M16)	95	H80C
32-200/40/P	A	50	32	80	60	390	350	360	260	180	922	900	150	600	100	440	4xØ19 (M16)	100	H80C
32-200/55/P	A	50	32	80	60	450	400	360	260	180	987	1000	170	660	100	451	4xØ24 (M20)	129	H95A
32-200/75/P	A	50	32	80	60	450	400	360	260	180	987	1000	170	660	100	451	4xØ24 (M20)	133	H95A
32-250/75/P	A	50	32	100	75	490	440	360	280	225	1007	1120	190	740	100	505	4xØ24 (M20)	160	H95A
32-250/110A/P	A	50	32	100	75	540	490	360	280	225	1164	1250	205	840	100	520	4xØ24 (M20)	190	H95B
32-250/110/P	A	50	32	100	75	540	490	360	280	225	1164	1250	205	840	100	520	4xØ24 (M20)	190	H95B
32-250/150/P	A	50	32	100	75	540	490	360	280	225	1164	1250	205	840	100	520	4xØ24 (M20)	207	H95B

NOTA: Pompe con flange in accordo alle norme EN 1092-2.

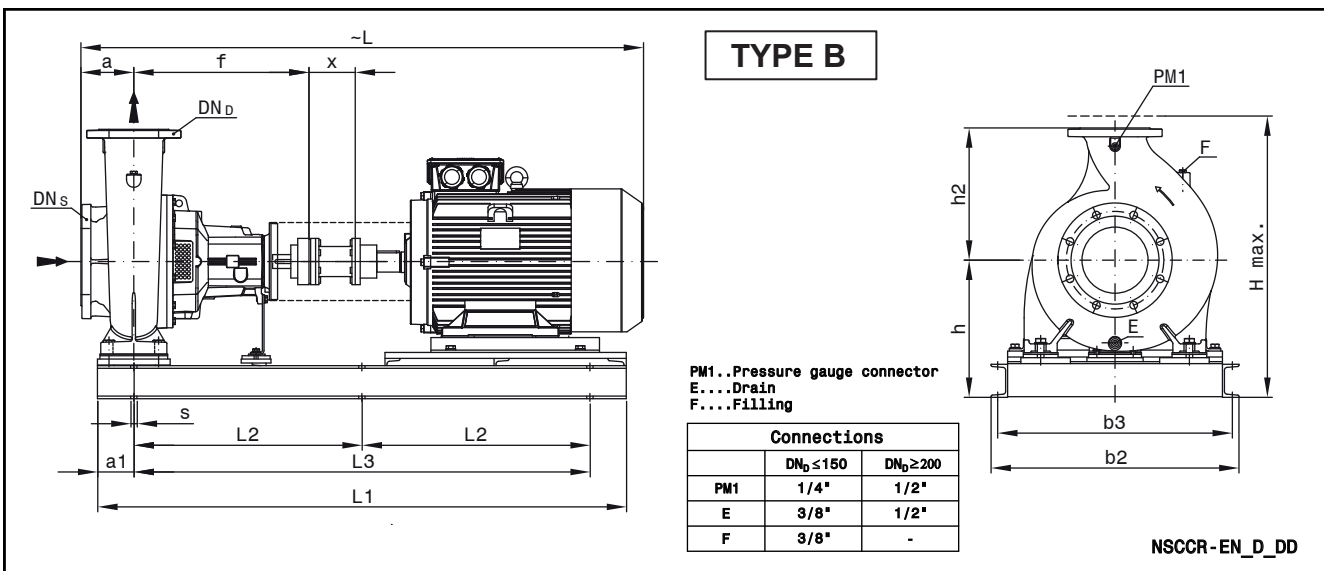
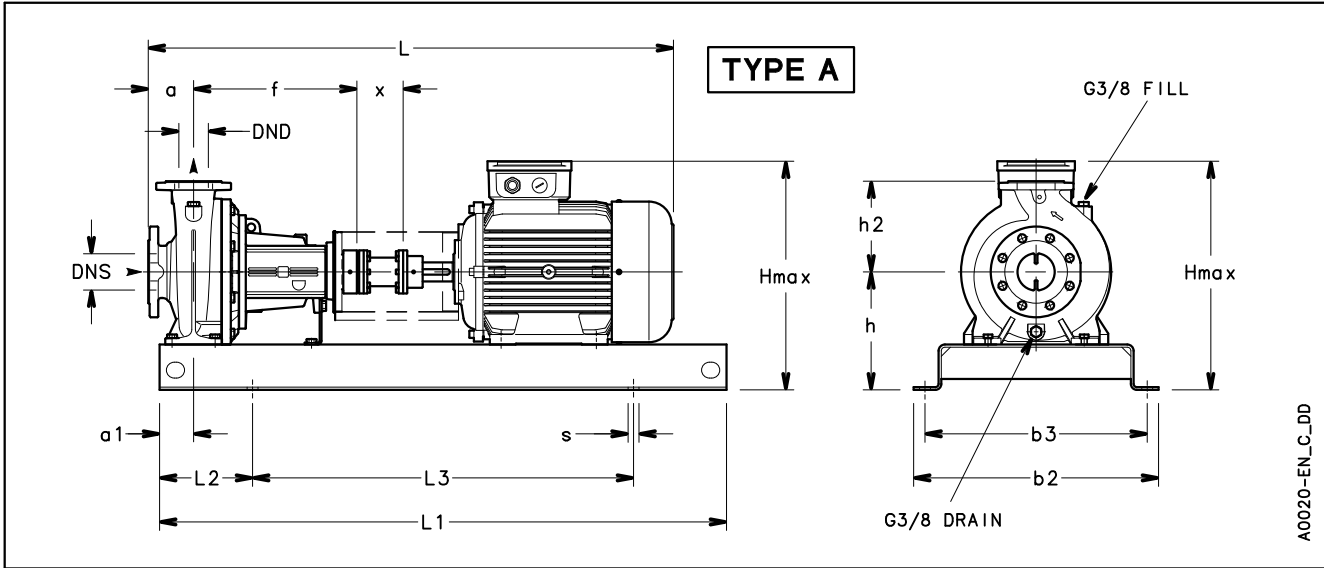
Nscc32_2p50-en_c_td

Disponibile la versione ASME B16.5 su richiesta. Per dimensioni flange vedere disegno.

**NSCC 80, 100, 125 SERIES (SPACER COUPLING)
DIMENSIONS AND WEIGHTS AT 50 Hz, 2 POLES**



NSCC 32 SERIES (SPACER COUPLING) DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES



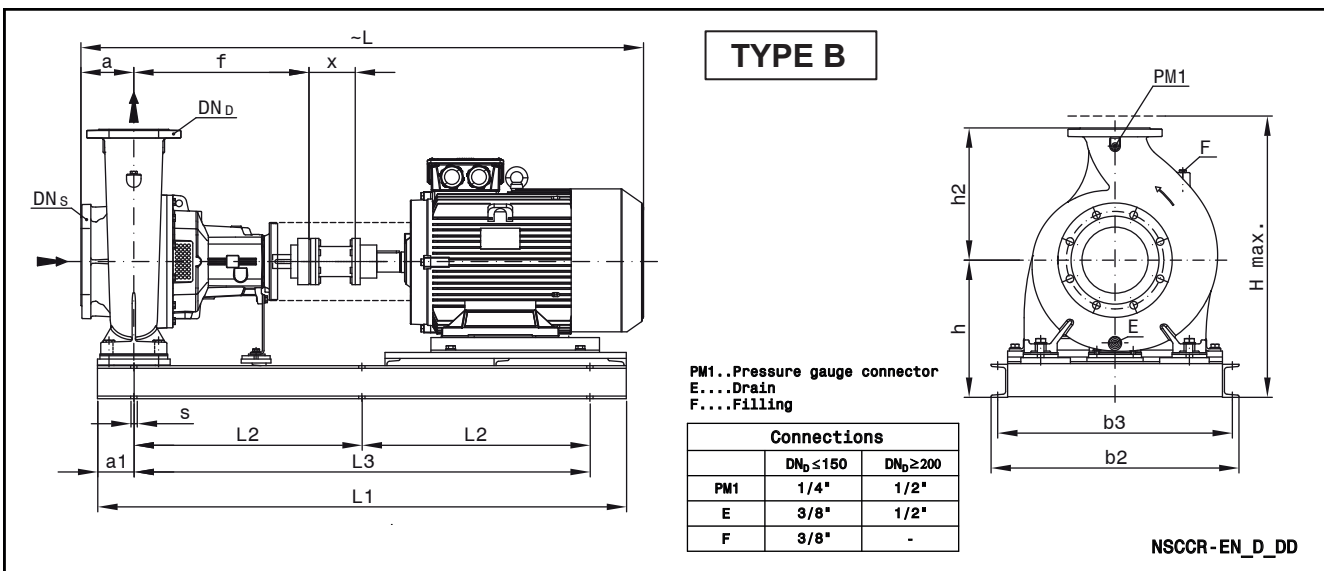
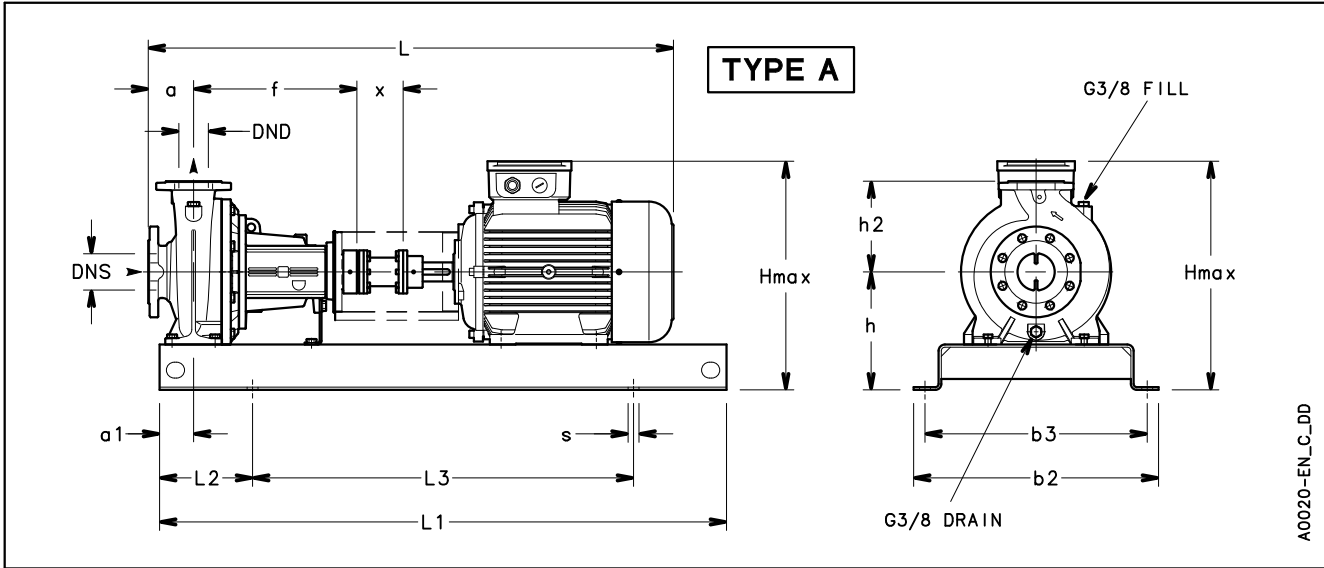
PUMP TYPE NSCC...4	TYPE	DIMENSIONS (mm)															WEIGHT kg	COUPLING TYPE	
		DN _S	DN _D	a	a1	b2	b3	f	h	h2	L	L1	L2	L3	x	H max			s FOR SCREWS
32-200/07/X	A	50	32	80	60	360	320	360	260	180	811	800	130	540	100	440	4xØ19 (M16)	79	H80A
32-200/11/P	A	50	32	80	60	390	350	360	260	180	888	900	150	600	100	440	4xØ19 (M16)	88	H80B
32-250/11A/P	A	50	32	100	75	450	400	360	280	225	908	1000	170	660	100	505	4xØ24 (M20)	115	H80B
32-250/11/P	A	50	32	100	75	450	400	360	280	225	908	1000	170	660	100	505	4xØ24 (M20)	115	H80B
32-250/15/P	A	50	32	100	75	450	400	360	280	225	908	1000	170	660	100	505	4xØ24 (M20)	120	H80B
32-250/22/P	A	50	32	100	75	450	400	360	280	225	985	1000	170	660	100	505	4xØ24 (M20)	130	H80C

NOTE: Pumps with flanges according to EN 1092-2 as standard.

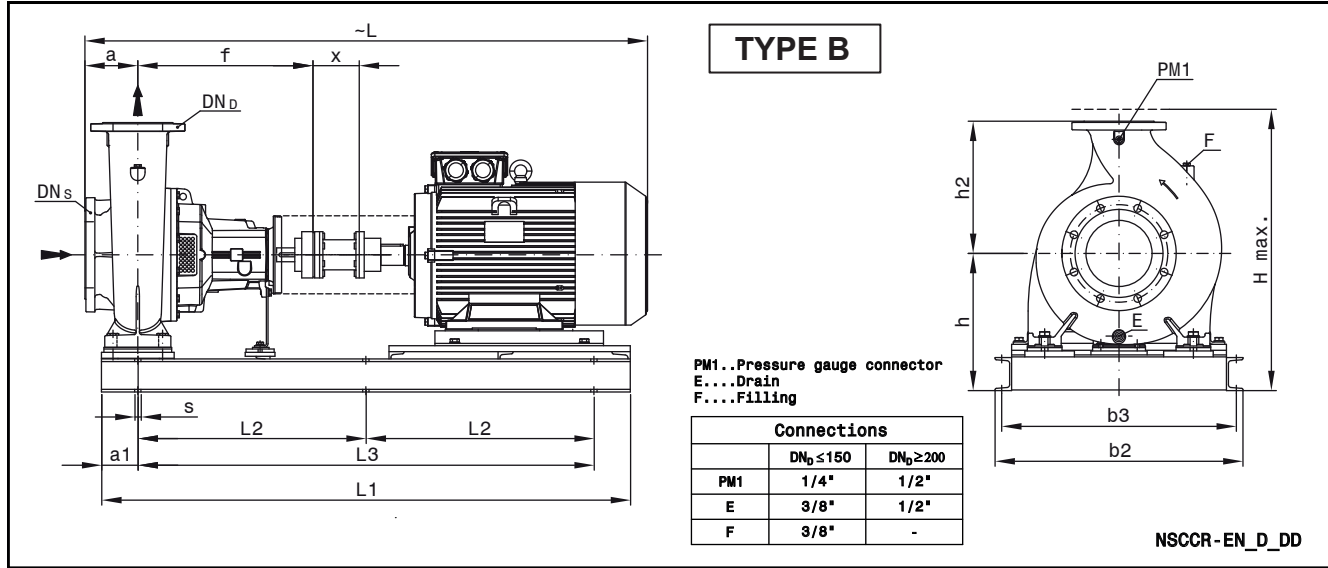
Nscc32_4p50-en_d_td

Available ASME B16.5 version on request. For flanges dimensions see drawing.

**NSCC 80, 100, 125 SERIES (SPACER COUPLING)
DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES**



NSCC 150 SERIES (SPACER COUPLING) DIMENSIONS AND WEIGHTS AT 50 Hz, 4 POLES



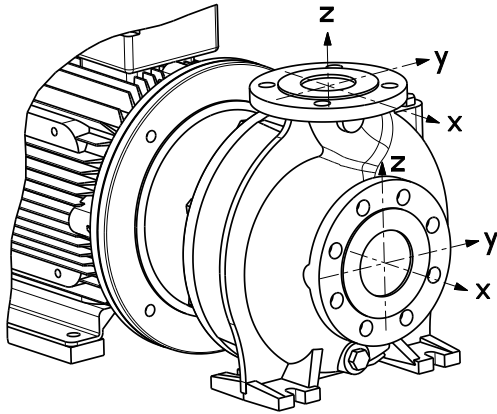
PUMP TYPE NSCC..4	TYPE	DIMENSIONS (mm)																WEIGHT (kg)	COUPLING
		DNS	DND	a	a1	b2	b3	f	h	h2	L	L1	L3	L2	x	H	s		
150-200/110A/P	B	200	150	160	110	670	630	470	385	400	1374	1330	1110	110	140	785	6xØ19 (M16)	360	H95E
150-200/110/P	B	200	150	160	110	670	630	470	385	400	1374	1330	1110	110	140	785	6xØ19 (M16)	360	H95E
150-200/150A/P	B	200	150	160	110	670	630	470	385	400	1374	1330	1110	110	140	785	6xØ19 (M16)	405	H110E
150-200/150/P	B	200	150	160	110	670	630	470	385	400	1374	1330	1110	110	140	785	6xØ19 (M16)	405	H110E
150-250/150/P	B	200	150	160	110	670	630	530	385	400	1434	1430	1210	110	140	785	6xØ19 (M16)	416	H110F
150-250/185/L	B	200	150	160	110	670	630	530	400	400	1531	1430	1210	110	140	800	6xØ19 (M16)	437	H110C
150-250/220/L	B	200	150	160	110	670	630	530	400	400	1531	1430	1210	110	140	653	6xØ19 (M16)	453	H110C
150-250/300/L	B	200	150	160	110	670	630	530	420	400	1611	1430	1210	110	140	705	6xØ19 (M16)	513	H125D
150-315/300/L	B	200	150	160	110	670	630	530	420	400	1611	1430	1210	110	140	705	6xØ19 (M16)	519	H125D
150-315/370/L	B	200	150	160	110	750	710	530	415	400	1670	1600	1380	110	140	724	6xØ19 (M16)	627	H140B
150-315/450/L	B	200	150	160	110	750	710	530	415	400	1670	1600	1380	110	140	724	6xØ19 (M16)	659	H140B
150-400/450/L	B	200	150	160	110	750	710	530	440	450	1670	1600	1380	110	140	749	6xØ19 (M16)	704	H140B
150-400/550/L	B	200	150	160	110	750	710	530	440	450	1736	1600	1380	110	140	802	6xØ19 (M16)	858	H160B
150-400/750/L	B	200	150	160	110	750	710	530	440	450	1841	1600	1380	110	140	840	6xØ19 (M16)	954	H180B
150-400/900/L	B	200	150	160	110	750	710	530	440	450	1841	1600	1380	110	140	840	6xØ19 (M16)	1048	H180B
150-400/1100/L	B	200	150	160	110	750	710	530	440	450	1841	1600	1380	110	140	840	6xØ19 (M16)	1122	H180B
150-500/900/L	B	200	150	180	165	860	810	770	565	500	2211	2000	1670	165	250	965	6xØ26 (M20)	1292	H180D
150-500/1100/L	B	200	150	180	165	860	810	770	585	500	2211	2250	1920	165	250	985	6xØ26 (M20)	1558	H200A
150-500/1320/L	B	200	150	180	165	860	810	770	585	500	2355	2250	1920	165	250	1079	6xØ26 (M20)	1672	H200A
150-500/1600/L	B	200	150	180	165	860	810	770	585	500	2355	2250	1920	165	250	1079	6xØ26 (M20)	1694	H200A
150-500/2000/L	B	200	150	180	165	860	810	770	585	500	2505	2250	1920	165	250	1079	6xØ26 (M20)	1853	H225A

NOTE: Pumps with flanges according to EN 1092-2 as standard.

c150_4p50-en_e_td

Available ASME B16.5 version on request. For flanges dimensions see drawing.

e-NSC SERIES FORCES AND MOMENTS AT PUMP FLANGES



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 / EN-GJS-400

Size	Suction									Discharge								
	DNS	F _{xmax} [N]	F _{ymax} [N]	F _{zmax} [N]	ΣF _{max} [N]	M _{xmax} [Nm]	M _{ymax} [Nm]	M _{zmax} [Nm]	ΣM _{max} [Nm]	DNS	F _{xmax} [N]	F _{ymax} [N]	F _{zmax} [N]	ΣF _{max} [N]	M _{xmax} [Nm]	M _{ymax} [Nm]	M _{zmax} [Nm]	ΣM _{max} [Nm]
32-...	50	580	530	480	925	490	350	405	730	32	320	300	370	575	385	265	300	560
40-...	65	740	650	600	1155	525	385	420	775	40	390	350	440	685	455	315	370	670
50-...	65	740	650	600	1155	525	385	420	775	50	530	480	580	925	490	350	405	730
65-...	80	880	790	720	1385	560	405	455	830	65	650	600	740	1155	525	385	420	775
80-...	100	1180	1050	950	1845	615	440	510	915	80	790	720	880	1385	560	405	455	830
100-...	125	1390	1250	1120	2180	735	525	665	1125	100	1050	950	1180	1845	615	440	510	915
125-...	150	1750	1580	1420	2755	875	615	720	1290	125	1250	1120	1390	2180	735	525	665	1125
150-...	200	2350	2100	1890	3675	1140	805	930	1680	150	1580	1420	1750	2755	875	615	720	1290
200-...	250	3340	2980	2700	5230	1780	1260	1460	2625	200	2100	1890	2350	3675	1140	805	930	1680
250-...	300	4000	3580	3220	6260	2420	1720	1980	3570	250	2980	2700	3340	5230	1780	1260	1460	2625
300-...	350	4660	4180	3760	7305	3100	2200	2540	4575	300	3580	3220	4000	6260	2420	1720	1980	3570

NSC_load-en_a_td

Stainless steel casing (1.4408) - Duplex (1.4517)

Size	Suction									Discharge								
	DNS	F _{xmax} [N]	F _{ymax} [N]	F _{zmax} [N]	ΣF _{max} [N]	M _{xmax} [Nm]	M _{ymax} [Nm]	M _{zmax} [Nm]	ΣM _{max} [Nm]	DNS	F _{xmax} [N]	F _{ymax} [N]	F _{zmax} [N]	ΣF _{max} [N]	M _{xmax} [Nm]	M _{ymax} [Nm]	M _{zmax} [Nm]	ΣM _{max} [Nm]
50-315	65	1470	1300	1190	2295	1050	770	840	1550	50	1050	950	1160	1835	980	700	805	1450
65-...	80	1750	1580	1440	2765	1120	805	910	1655	65	1300	1190	1470	2295	1050	770	840	1550
80-...	100	2350	2100	1890	3675	1225	875	1015	1820	80	1580	1440	1750	2765	1120	805	910	1655
100-...	125	2770	2490	2240	4350	1470	1050	1330	2245	100	2100	1890	2350	3675	1230	880	1020	1830
125-...	150	3500	3150	2840	5500	1750	1225	1435	2575	125	2490	2240	2770	4350	1470	1050	1330	2245
150-...	200	4690	4200	3780	7345	2275	1610	1855	3350	150	3150	2840	3500	5500	1750	1225	1435	2575
200-...	250	5850	5220	4730	9160	3115	2205	2555	4595	200	4200	3780	4690	7345	2275	1610	1855	3350
250-...	300	7000	6270	5640	10965	4235	3010	3465	6250	250	5220	4730	5850	9160	3115	2205	2555	4595
300-...	350	8160	7320	6580	12790	5425	3850	4445	8005	300	6270	5640	7000	10965	4235	3010	3465	6250

NSC_load_ss-en_a_td

e-NSC...X, e-NSC...K

VERSION WITH

hydrovar X

e-NSC..X, e-NSC..K SERIES e-NSC 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

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.

hydrovar X (e-NSC..K) hydrovar X+ (e-NSC..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
- Can be linked up to 4 e-NSC hydrovar X, up to 8 e-NSC hydrovar X+ pumps

Pump

- Flow rate: up to 500 m³/h
- Head: up to 115 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

Pressure transmitters

The e-NSC..X/K pumps are fitted as standard with two pressure transmitters. The pressure transmitters are supplied unassembled.

* for liquid temperatures above 120°C the maximum ambient temperature is +40°C.

**e-NSC..X, e-NSC..K SERIES
LIST OF MODELS**

SIZE NSC..X, NSC..K	PN [kW]	MOTOR		VERSION	
		SIZE	SPEED	NSCE..	NSCS..
32-125	3	B	high (2)	•	•
32-125	4	B	high (2)	•	•
32-160	5,5	C	high (2)	•	•
32-200	7,5	C	high (2)	•	•
32-200	11	C	high (2)	•	•
40-125	3	B	high (2)	•	•
40-125	4	B	high (2)	•	•
40-160	5,5	C	high (2)	•	•
40-160	7,5	C	high (2)	•	•
40-200	11	C	high (2)	•	•
40-200	15	D	high (2)	-	•
40-200	18,5	D	high (2)	-	•
40-250	22	D	high (2)	•	•
50-125	3	B	high (2)	•	•
50-125	4	B	high (2)	•	•
50-125	5,5	C	high (2)	•	•
50-125	7,5	C	high (2)	•	•
50-160	11	C	high (2)	•	•
50-160	15	D	high (2)	-	•
50-200	18,5	D	high (2)	•	•
50-200	22	D	high (2)	•	•

• = Available

LEGEND

NSCE : Extended shaft.

NSCS : Stub shaft.

SIZE NSC..X, NSC..K	PN [kW]	MOTORE		VERSIONE	
		TAGLIA	VELOCITÀ	NSCE..	NSCS..
65-125	4	B	high (2)	•	•
65-125	5,5	C	high (2)	•	•
65-125	7,5	C	high (2)	•	•
65-125	11	C	high (2)	•	•
65-160	15	D	high (2)	•	•
65-160	18,5	D	high (2)	•	•
65-160	22	D	high (2)	•	•
80-160	4	C	low (4)	•	•
80-160	5,5	C	low (4)	•	•
80-160	22	D	high (2)	•	•
100-160	3	C	low (4)	-	•
100-160	4	C	low (4)	-	•
100-160	22	D	high (2)	-	•
100-200	5,5	C	low (4)	-	•
100-200	7,5	D	low (4)	-	•
100-250	11	D	low (4)	-	•
125-200	5,5	C	low (4)	-	•
125-250	11	D	low (4)	-	•
150-200	11	D	low (4)	-	•

NSCX_models-en_a_sc

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

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

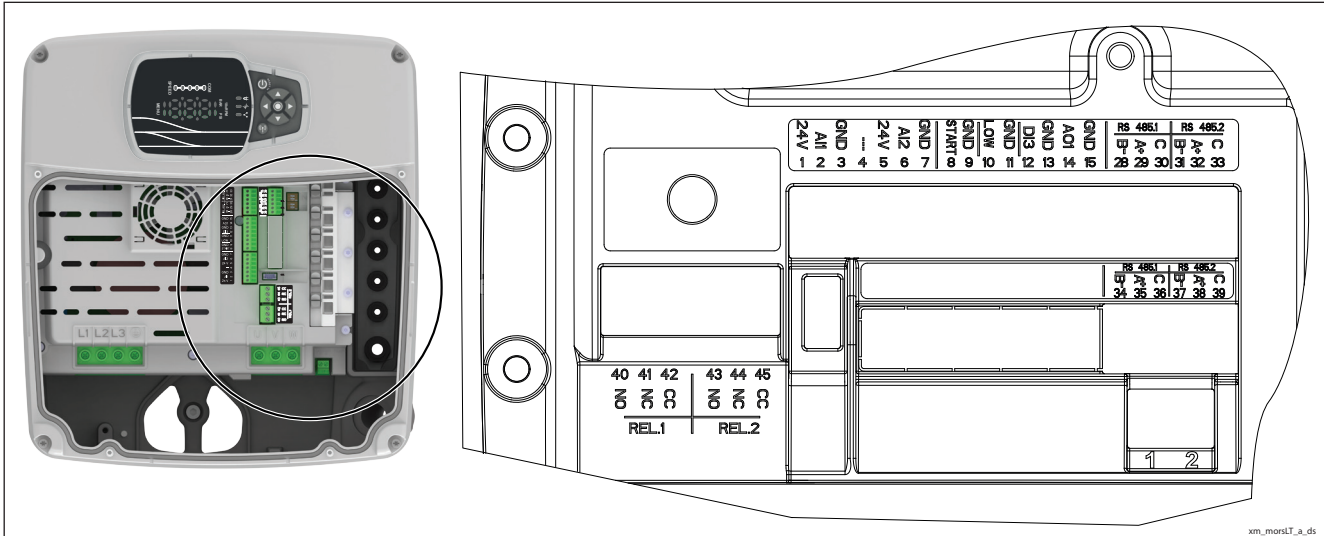
hydrovar X (e-NSC..K)



hydrovar X+ (e-NSC..X)



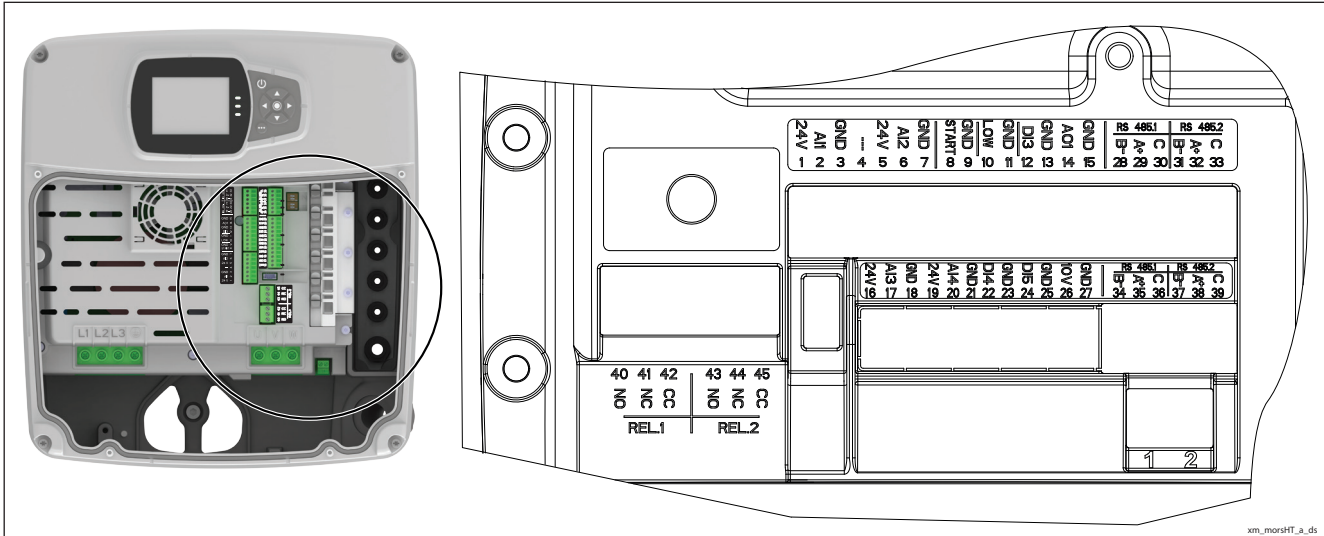
e-NSC..K SERIES (hydrovar X) TERMINAL BOARD



REF.	ITEM	DESCRIPTION	DEFAULT
1		Power supply +24 VDC, max. 60mA (total, terminals 1 + 5)	
2	Analog Input 1	Configurable Analog Input 1	Pressure Sensor 1
3		Electronic GND	
4	Not used	Internal use - Do not connect	
5		Power supply +24 VDC, max. 60mA (total, terminals 1 + 5)	
6	Analog Input 2	Configurable Analog Input 2	Not used
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-NSC..X SERIES (hydrovar X+) TERMINAL BOARD



REF.	ITEM	DESCRIPTION	DEFAULT
1		Power supply +24 VDC, max. 60mA (total, terminals 1 + 5)	
2	Analog Input 1	Configurable Analog Input 1	Pressure Sensor 1
3		Electronic GND	
4	Not used	Internal use - Do not connect	
5		Power supply +24 VDC, max. 60mA (total, terminals 1 + 5)	
6	Analog Input 2	Configurable Analog Input 2	Not used
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		Power supply +24 VDC, max. 60mA (total, terminals 16 and 19)	
17	Analog Input 3	Configurable Analog Input 3	Not used
18		Electronic GND	
19		Power supply +24 VDC, max. 60mA (total, terminals 16 and 19)	
20	Analog Input 4	Configurable Analog Input 4	Not used
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		RS485 port 1: RS485-1B N (-)	
29	Communication bus 1	RS485 port 1: RS485-1A P (+)	Multipump
30		RS485 port 1: RS485-COM	
31		RS485 port 2: RS485-2B N (-)	
32	Communication bus 2	RS485 port 2: RS485-2A P (+)	Modbus
33		RS485 port 2: RS485-COM	
34		RS485 port 1: RS485-1B N (-)	
35	Communication bus 1	RS485 port 1: RS485-1A P (+)	Multipump
36		RS485 port 1: RS485-COM	
37		RS485 port 2: RS485-2B N (-)	
38	Communication bus 2	RS485 port 2: RS485-2A P (+)	Modbus
39		RS485 port 2: RS485-COM	
40		Configurable relay 1: Normally Open	
41	Relay 1	Configurable relay 1: Normally Closed	Running
42		Configurable relay 1: Common Contact	
43		Configurable relay 2: Normally Open	
44	Relay 2	Configurable relay 2: Normally Closed	Error
45		Configurable relay 2: Common Contact	

xm_morsHT-en_a_sc

**e-NSC..X, e-NSC..K SERIES
 HYDRAULIC PERFORMANCE TABLE**

PUMP TYPE NSC..X NSC..K	MOTOR PN kW		TYPE	Q = FLOW									
				l/min 0	91,67	183,3	275	366,7	458,3	550	641,7	733,33	800
				m3/h 0	5,5	11	16,5	22	27,5	33	38,5	44	48
H = TOTAL HEAD METRES COLUMN OF WATER													
32-125	3		EXM100../4.030BH2	40,6	41,8	42,5	39,7	33,4	28,2	23,1	17,4		
32-125	4		EXM112../4.040BH2	45,3	46,5	47,2	47,5	43,1	36,9	31,4	26,1	20,4	15,8
32-160	5,5		EXM132../4.055CH2	59,2	59,7	60,3	60,6	55,5	48,4	41,4	33,7	25,2	
32-200	7,5		EXM132../4.075CH2	81,2	81,5	81,3	81,3	72,4	60,7	49,8			
32-200	11		EXM132../4.110CH2	91,0	91,2	91,4	91,0	89,1	84,9	74,7	62,3		
			EXM160../4.110CH2										

PUMP TYPE NSC..X NSC..K	MOTOR PN kW		TYPE	Q = FLOW									
				l/min 0	141,7	283,3	425	566,7	708,3	850	991,7	1133,3	1250
				m3/h 0	8,5	17	25,5	34	42,5	51	59,5	68	75
H = TOTAL HEAD METRES COLUMN OF WATER													
40-125	3		EXM100../4.030BH2	39,4	37,3	33,2	29,3	24,5	18,8	12,9			
40-125	4		EXM112../4.040BH2	43,9	44,0	41,1	36,6	32,4	28,1	23,0	16,9	10,2	
40-160	5,5		EXM132../4.055CH2	50,4	51,9	52,7	47,3	41,4	35,5	29,3	22,6	16,5	
40-160	7,5		EXM132../4.075CH2	59,5	59,8	60,4	60,7	54,4	47,6	41,0	34,1	26,9	22,0
40-200	11		EXM132../4.110CH2	72,8	73,9	74,4	74,7	72,4	63,3	53,9	42,3	26,2	
			EXM160../4.110CH2										
40-200	15		EXM160../4.150DH2	81,6	82,8	83,5	83,6	83,4	81,3	72,6	62,0	48,8	35,3
40-200	19		EXM160../4.185DH2	91,0	92,2	93,0	93,2	92,9	91,9	88,1	77,4	64,8	52,2
40-250	22		EXM180../4.220DH2	114,7	114,4	114,2	113,5	112,7	111,3	104,1	90,4	71,0	

PUMP TYPE NSC..X NSC..K	MOTOR PN kW		TYPE	Q = FLOW									
				l/min 0	250	500	750	1000	1250	1500	1750	2000	2200
				m3/h 0	15	30	45	60	75	90	105	120	132
H = TOTAL HEAD METRES COLUMN OF WATER													
50-125	3		EXM100../4.030BH2	19,2	19,0	18,3	15,1	10,9	7,2				
50-125	4		EXM112../4.040BH2	27,5	27,2	24,9	21,4	17,3	12,8	8,7	5,1		
50-125	5,5		EXM132../4.055CH2	35,7	34,9	33,9	29,7	23,8	18,2	13,4	9,6		
50-125	7,5		EXM132../4.075CH2	38,0	37,1	36,2	34,9	33,0	27,8	22,6	17,6	12,7	
50-160	11		EXM132../4.110CH2	51,8	51,3	50,5	49,4	47,1	40,4	33,4	26,0	18,3	12,4
			EXM160../4.110CH2										
50-160	15		EXM160../4.150DH2	63,5	63,0	62,3	61,0	59,3	54,0	46,2	38,4	30,4	23,8
50-200	19		EXM160../4.185DH2	76,8	76,9	77,4	77,5	76,8	69,0	57,9	45,5	33,0	
50-200	22		EXM180../4.220DH2	81,5	81,6	82,1	82,3	81,6	79,2	69,1	57,1	45,2	36,2

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

NSCX-1-en_a_th

e-NSC..X, e-NSC..K SERIES HYDRAULIC PERFORMANCE TABLE

PUMP TYPE NSC..X NSC..K	MOTOR PN TYPE kW		Q = FLOW									
			l/min 0	416,7	833,3	1250	1667	2083	2500	2917	3333,3	3750
			m3/h 0	25	50	75	100	125	150	175	200	225
H = TOTAL HEAD METRES COLUMN OF WATER												
65-125	4	EXM112../4.040BH2	20,0	19,1	17,2	14,5	11,2	7,4				
65-125	5,5	EXM132../4.055CH2	25,8	26,3	24,3	20,4	16,1	11,8	8,0			
65-125	7,5	EXM132../4.075CH2	34,9	35,4	31,0	26,7	22,1	17,2	12,6			
65-125	11	EXM160../4.110CH2	46,7	46,8	43,7	37,4	31,7	26,6	21,6	16,7		
65-160	15	EXM160../4.150DH2	51,5	51,5	51,1	50,0	43,7	36,0	28,0	20,9	15,1	
65-160	18,5	EXM160../4.185DH2	56,4	56,4	56,0	55,2	52,4	45,0	37,9	30,6	23,5	
65-160	22	EXM180../4.220DH2	61,6	61,6	61,3	60,4	58,7	52,8	45,2	37,5	29,9	22,6

PUMP TYPE NSC..X NSC..K	MOTOR PN TYPE kW		Q = FLOW									
			l/min 0	558,3	1117	1675	2233	2792	3350	3908	4466,7	5000
			m3/h 0	33,5	67	100,5	134	167,5	201	234,5	268	300
H = TOTAL HEAD METRES COLUMN OF WATER												
80-160	4	EXM112../4.040CH4	12,4	12,3	11,3	9,4	6,6					
80-160	5,5	EXM132../4.055CH4	17,2	17,0	16,2	14,4	11,5	8,1	4,9			
80-160	22	EXM180../4.220DH2	45,9	45,8	45,3	44,1	42,0	38,6	32,4	26,1	20,3	15,8

PUMP TYPE NSC..X NSC..K	MOTOR PN TYPE kW		Q = FLOW									
			l/min 0	608,3	1217	1825	2433	3042	3650	4258	4866,7	5450
			m3/h 0	36,5	73	109,5	146	182,5	219	255,5	292	327
H = TOTAL HEAD METRES COLUMN OF WATER												
100-160	3	EXM100../4.030CH4	12,6	11,7	10,1	7,9	5,6					
100-160	4	EXM112../4.040CH4	17,1	15,7	13,4	10,9	8,3	6,0				
100-160	22	EXM180../4.220DH2	47,0	44,6	42,1	39,4	36,5	33,1	29,4	25,3	21,1	17,1
100-200	5,5	EXM132../4.055CH4	24,6	21,7	18,5	15,0	11,3	7,6				
100-200	7,5	EXM132../4.075DH4	31,4	27,9	23,8	19,7	15,8	12,0				
100-250	11	EXM160../4.110DH4	40,7	40,8	34,6	28,5	23,0	18,2				

PUMP TYPE NSC..X NSC..K	MOTOR PN TYPE kW		Q = FLOW									
			l/min 0	925	1850	2775	3700	4625	5550	6475	7400	8300
			m3/h 0	55,5	111	166,5	222	277,5	333	388,5	444	498
H = TOTAL HEAD METRES COLUMN OF WATER												
125-200	5,5	EXM132../4.055CH4	11,8	11,3	10,3	9,0	7,3					
125-250	11	EXM160../4.110DH4	29,0	26,4	22,6	19,2	15,6	11,5				
150-200	11	EXM160../4.110DH4	16,3	15,9	15,0	13,8	12,4	10,9	9,4	8,1	6,7	5,1

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

NSCX-2-en_a_th

hydrovar X, hydrovar X+ TABELLA DEI DATI ELETTRICI

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 kW	MOTOR TYPE	IEC SIZE*	Construction Design	SPEED (RPM)** min ⁻¹	INPUT CURRENT I (A) 380-480 V	DATA RELATED TO THE VOLTAGE OF 400V					IES	
						In A	cosφ	Tn Nm	η % 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		3000	20,3-16,5	18,9	0,93	35,0	91,0	90,9	90,0	
		160		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	

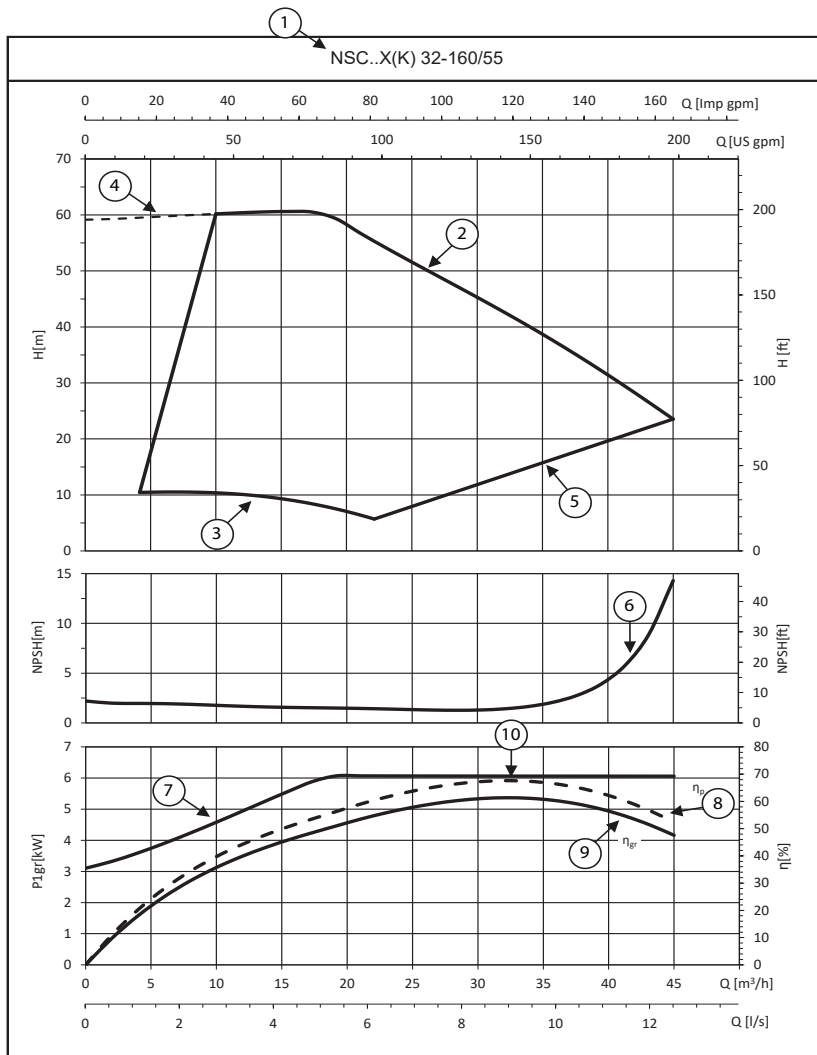
** The indicated rotational speed are representing the upper and lower limits of the rated power operational speed range.

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**.

e-NSC..X, e-NSC..K SERIES
HOW TO READ e-NSC 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.

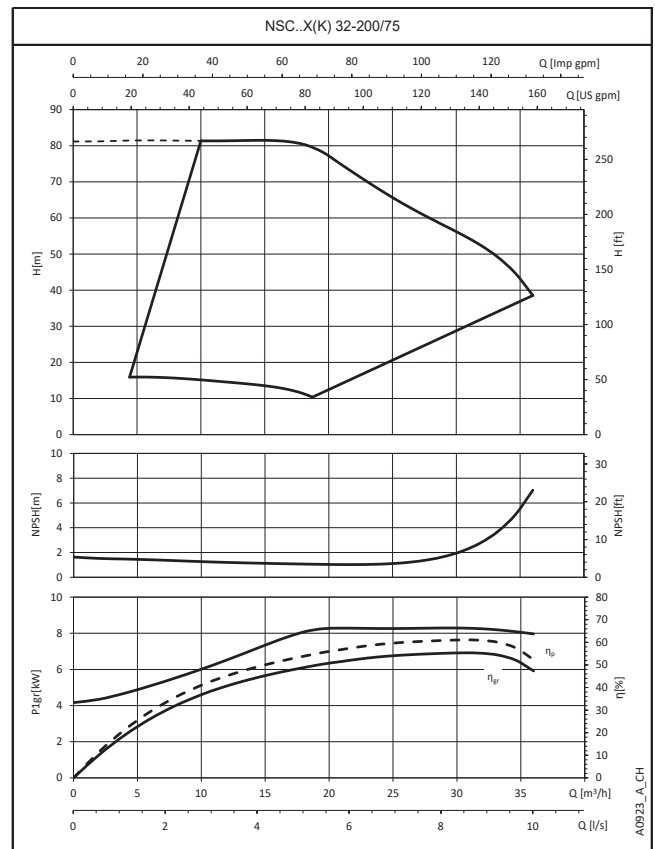
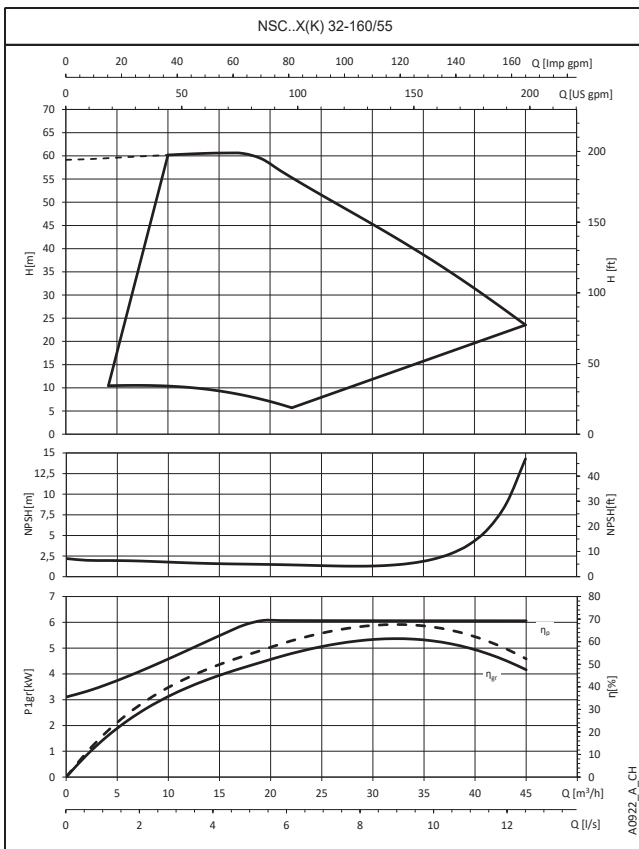
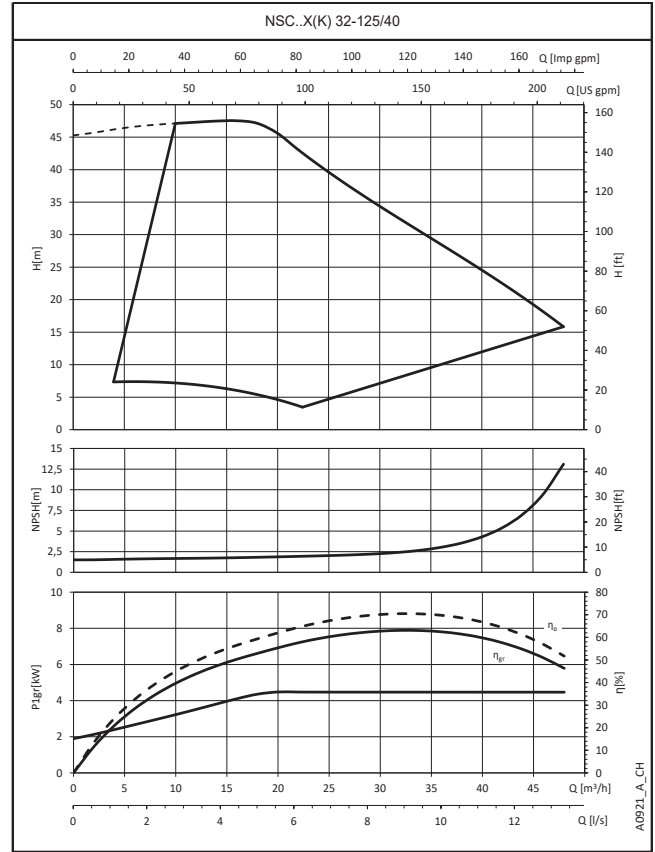
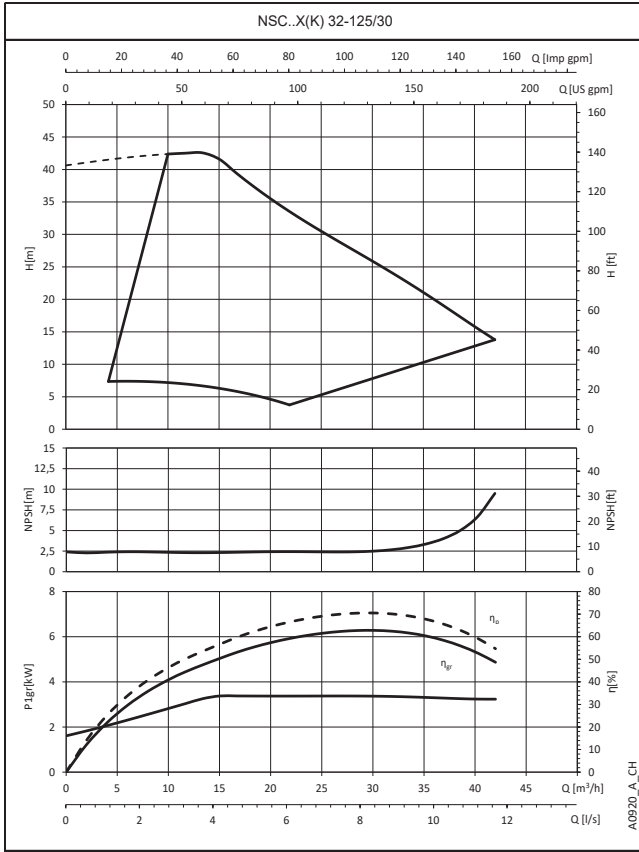
⑧ **η_p** is the efficiency of the hydraulic part, working at maximum speed.

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

⑩ **Working point**: it's important to make sure the pump is working at the best working point, the one at highest efficiency.

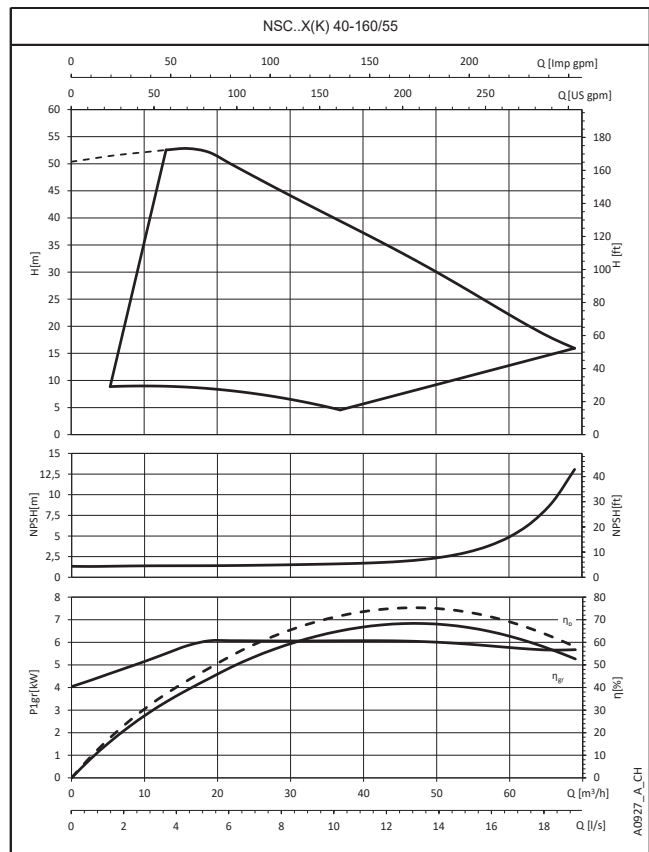
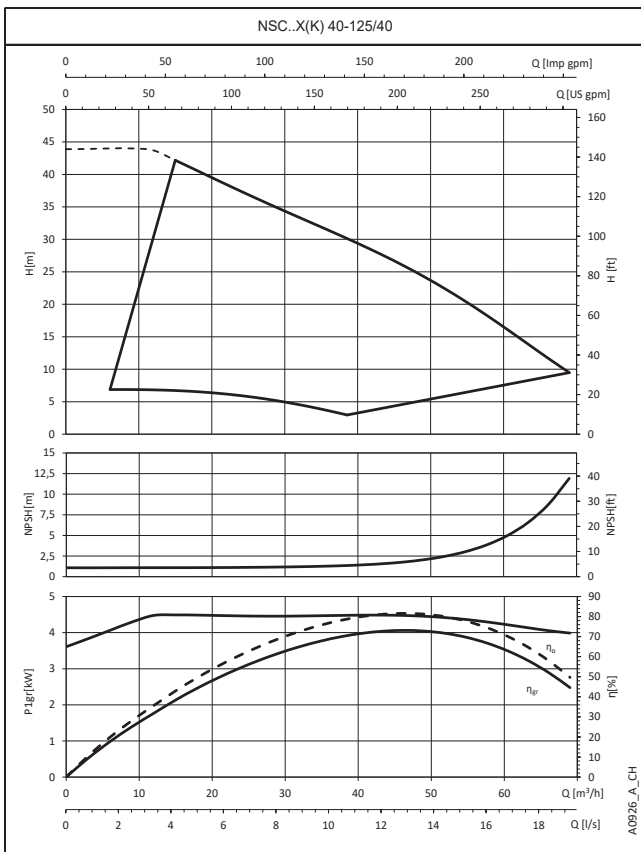
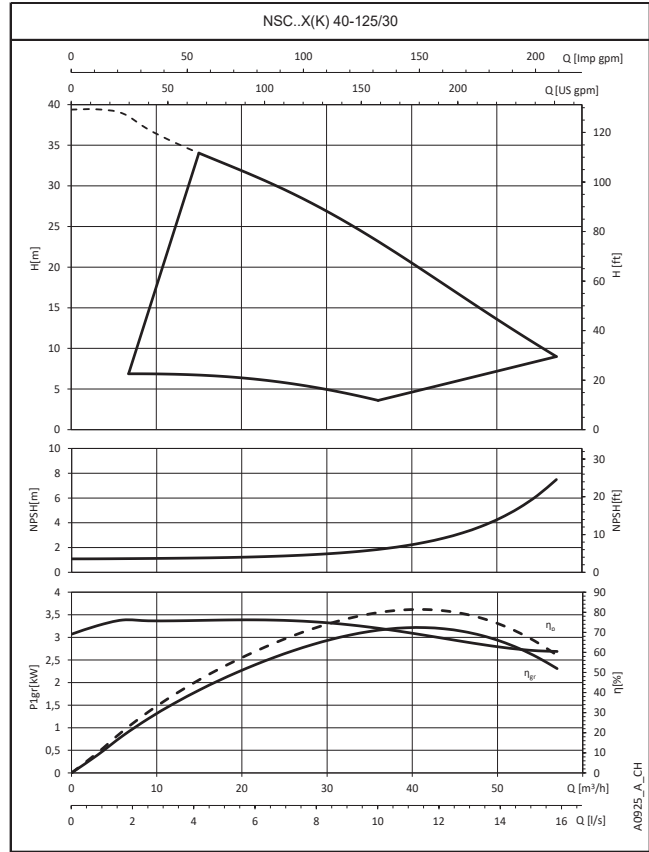
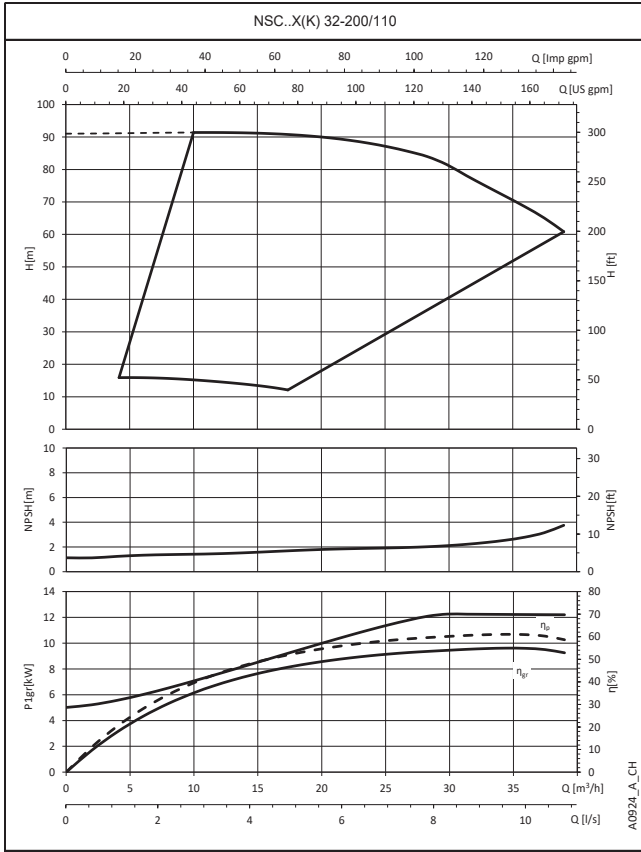
It's easy to find it: it's the highest point of the η_p pump efficiency curve; once you found it, you can learn also flow values from x-axis called Q and head values from y-axis called H which allow the system to work at the best working point.

**e-NSC..X, e-NSC..K SERIES
OPERATING CHARACTERISTICS**



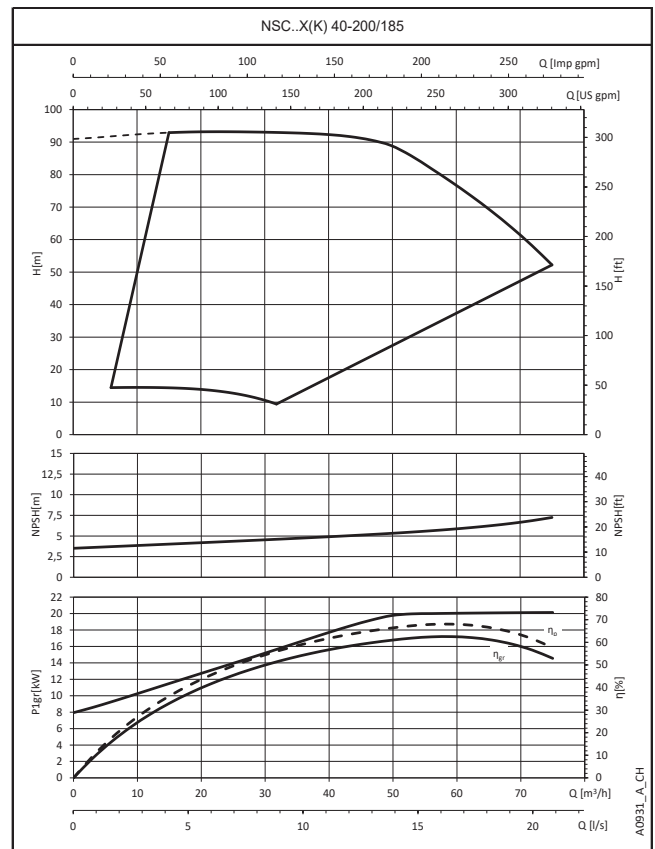
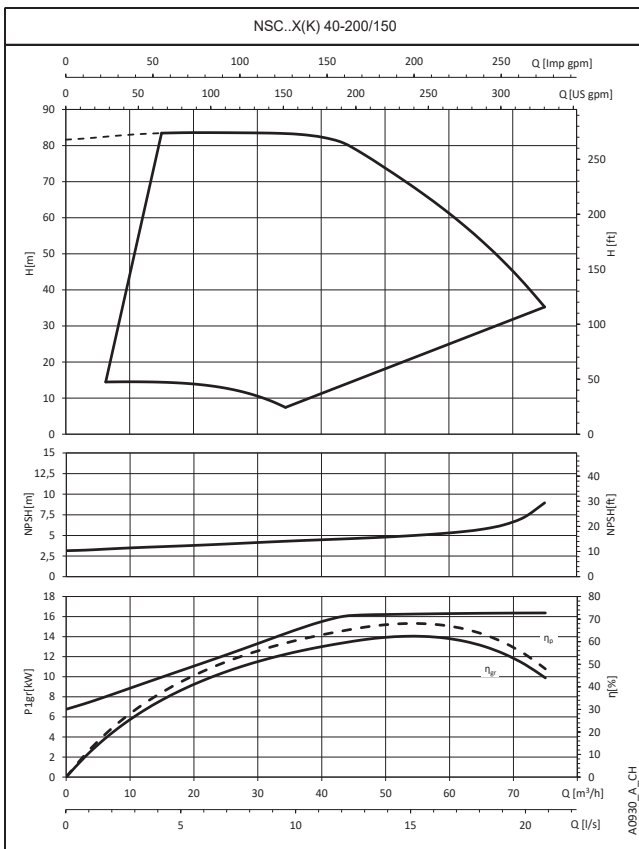
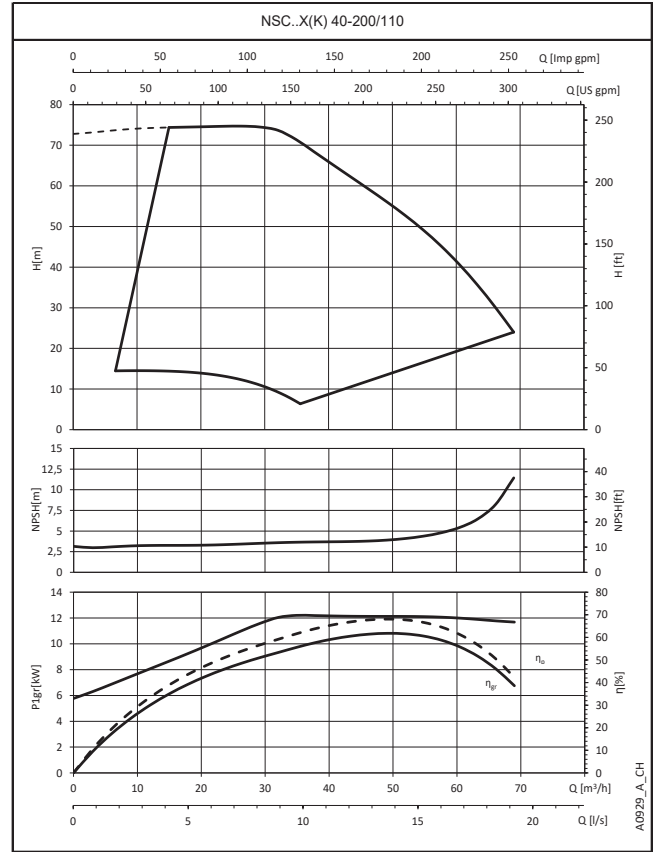
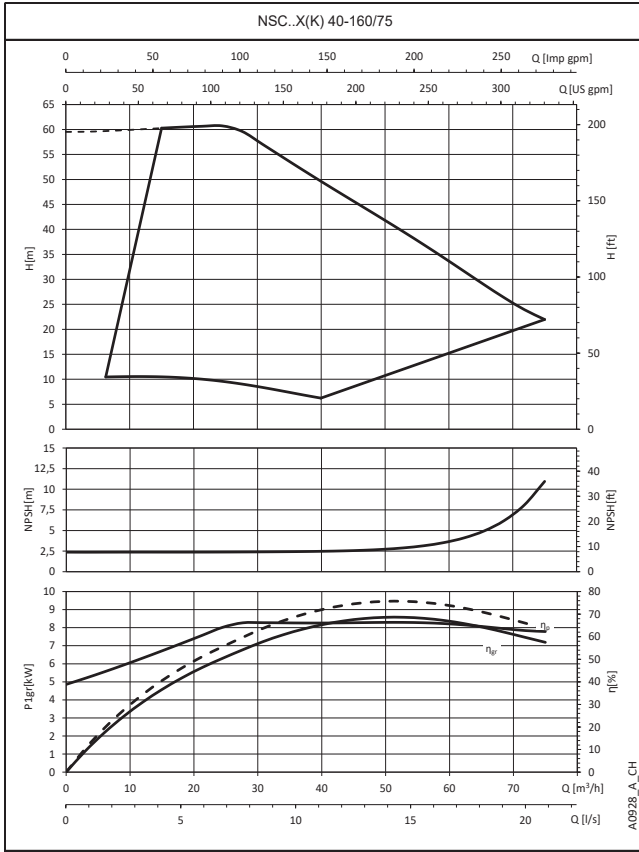
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

**e-NSC..X, e-NSC..K SERIES
OPERATING CHARACTERISTICS**



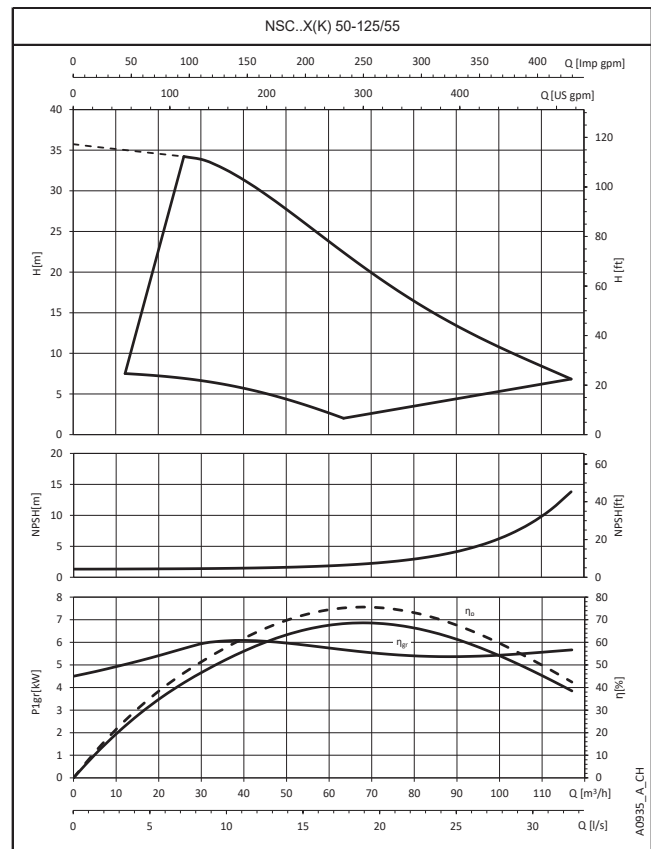
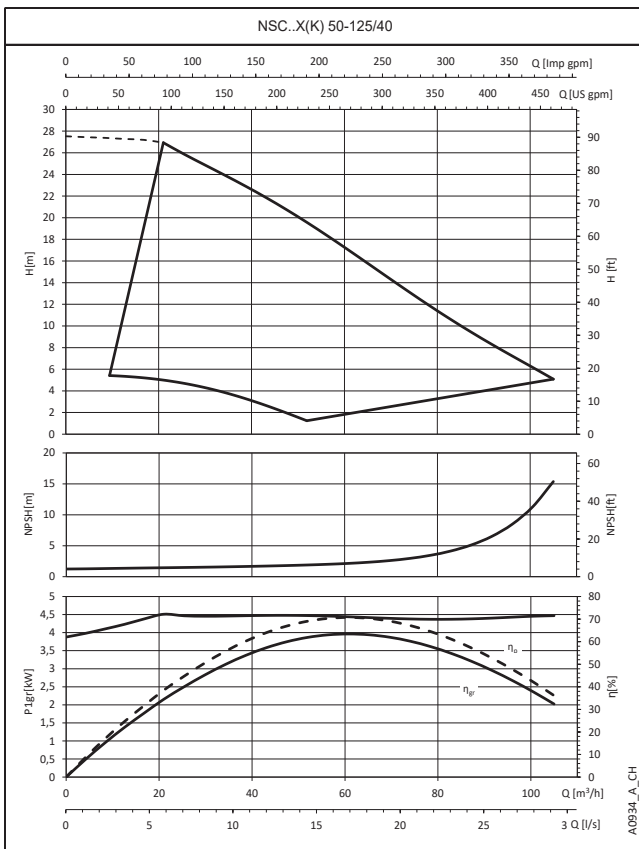
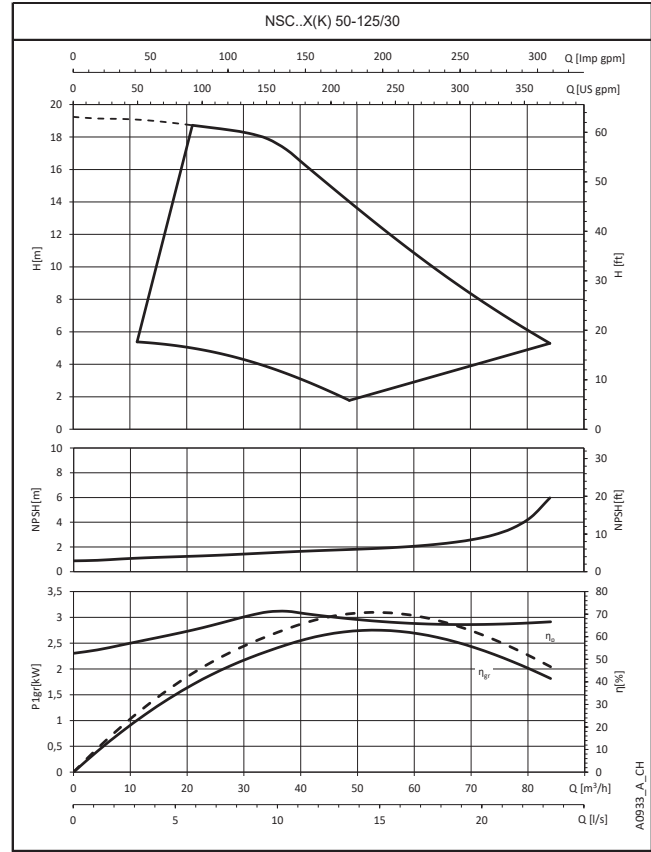
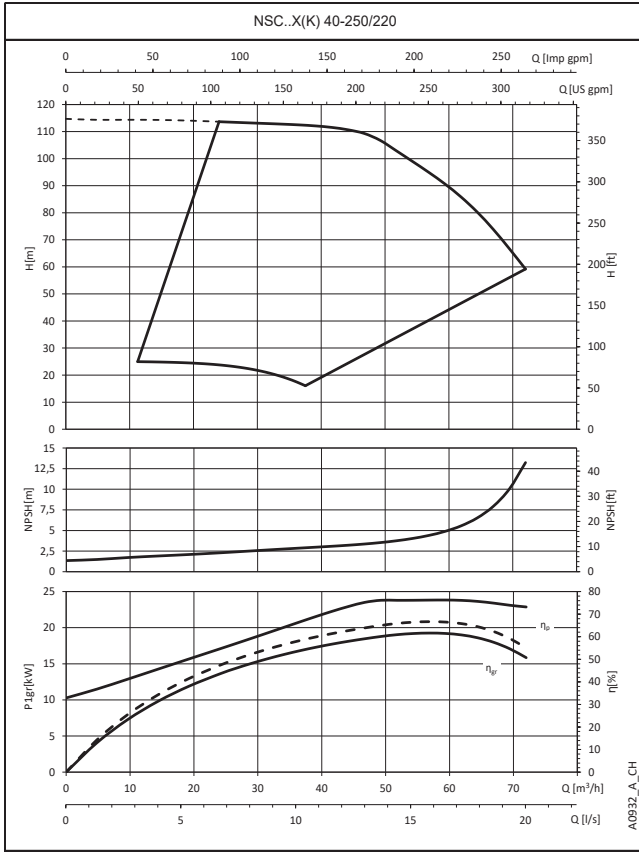
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

**e-NSC..X, e-NSC..K SERIES
OPERATING CHARACTERISTICS**



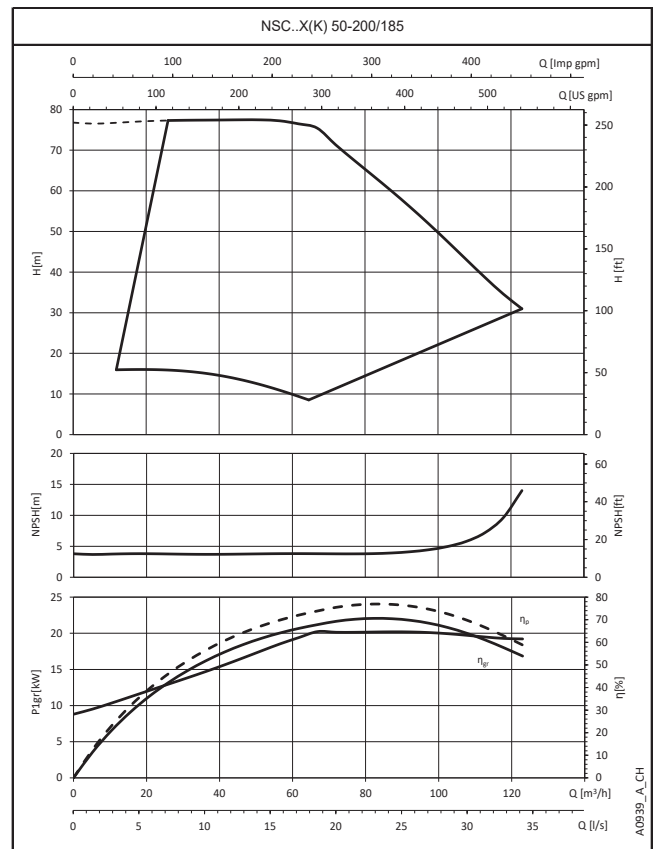
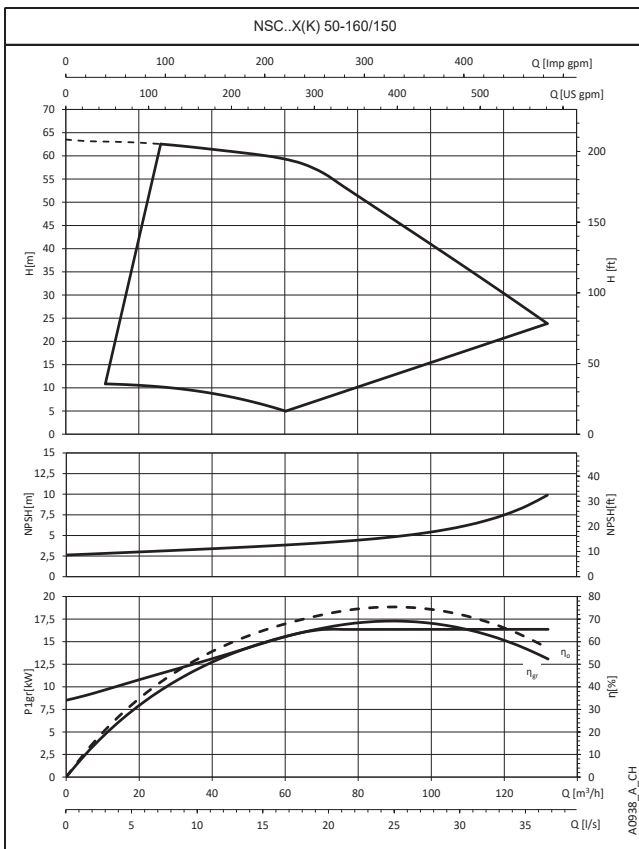
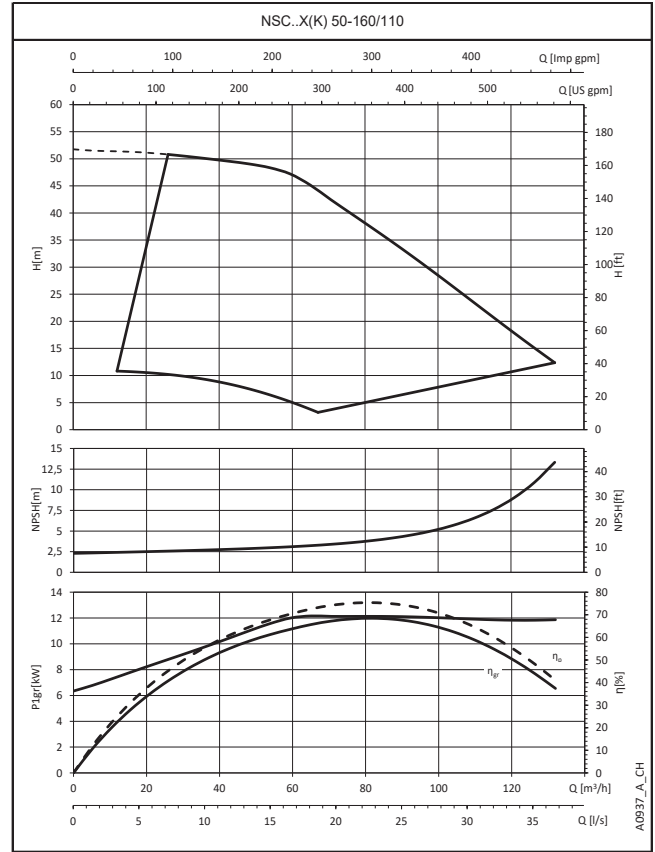
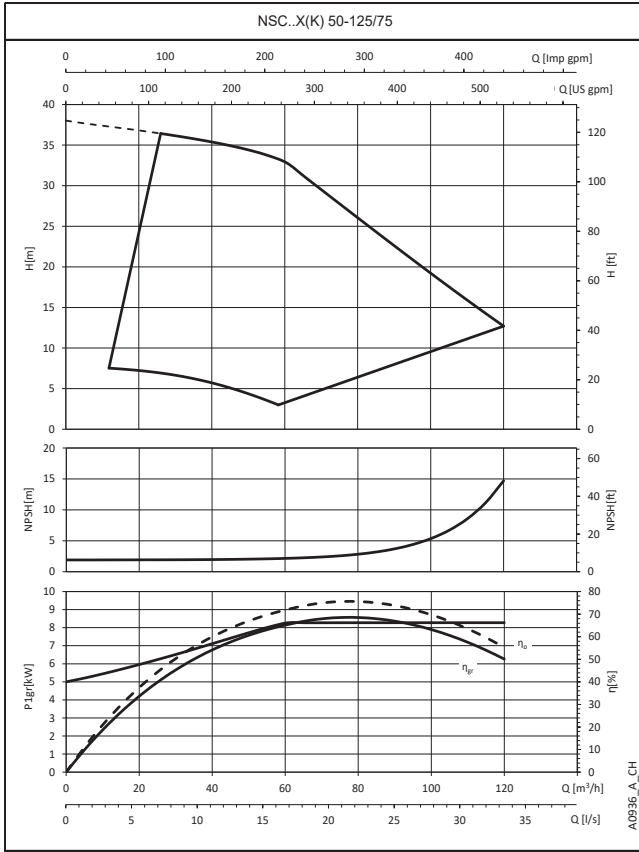
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

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



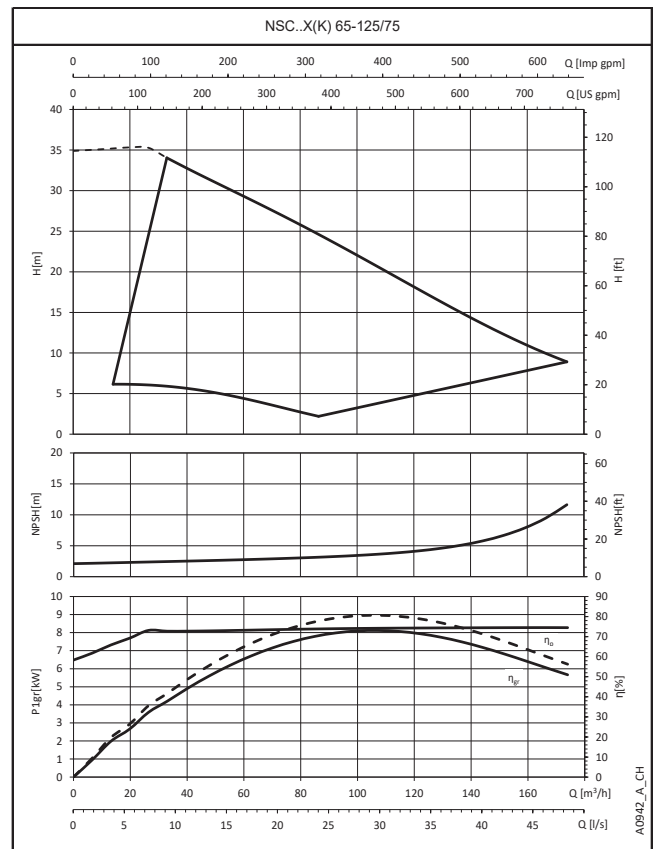
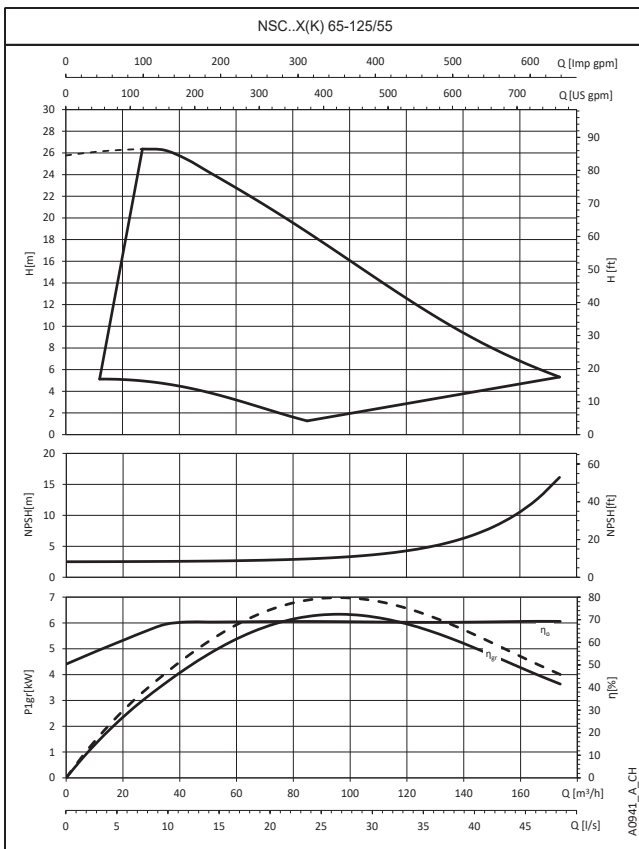
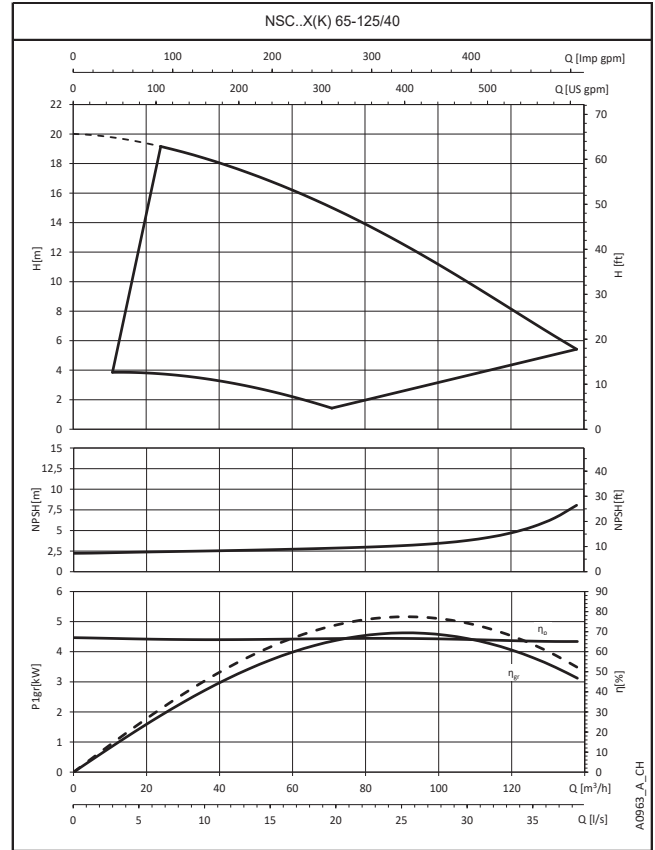
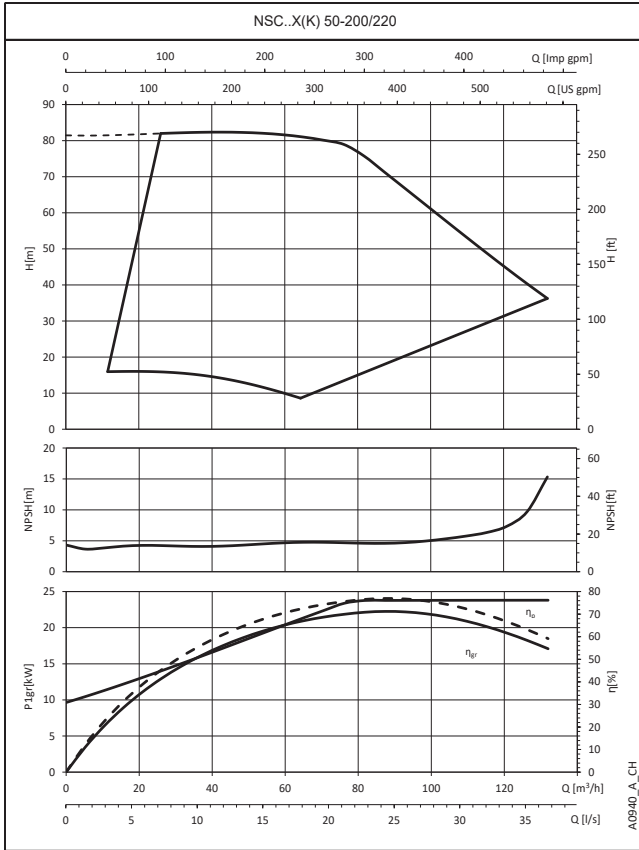
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

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



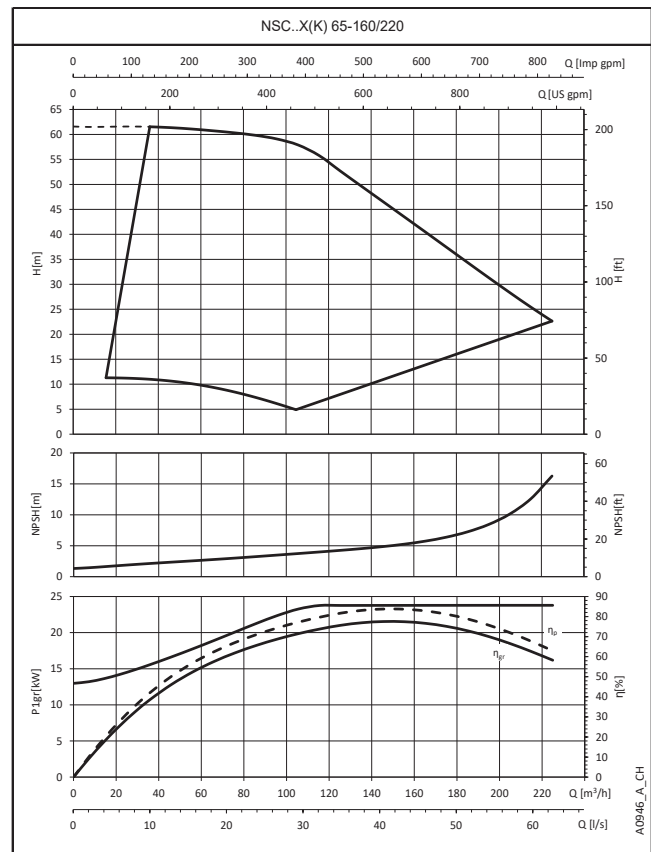
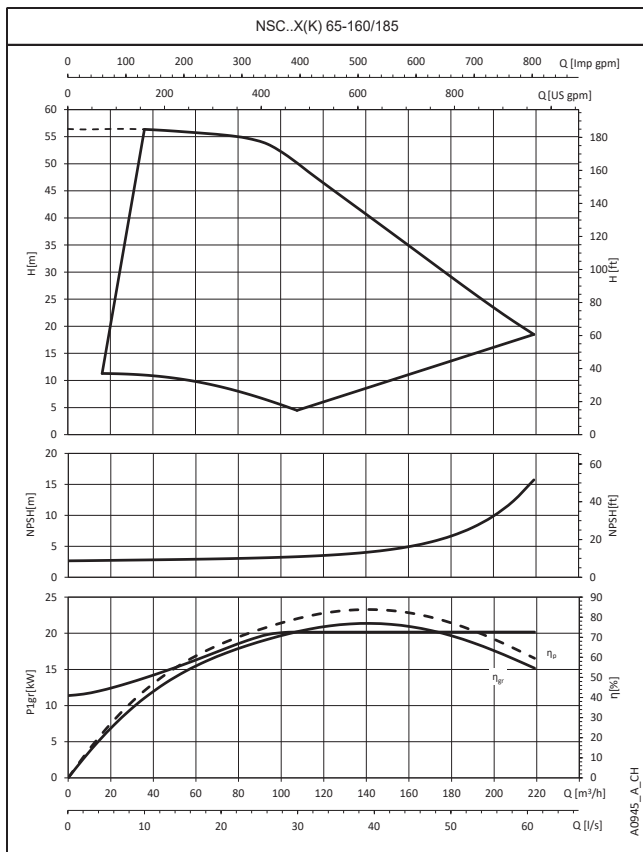
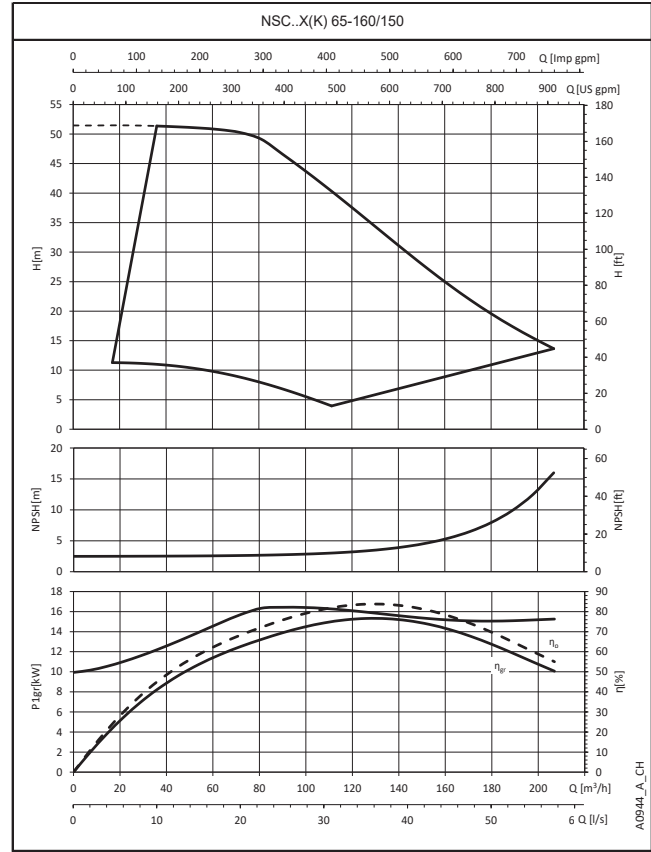
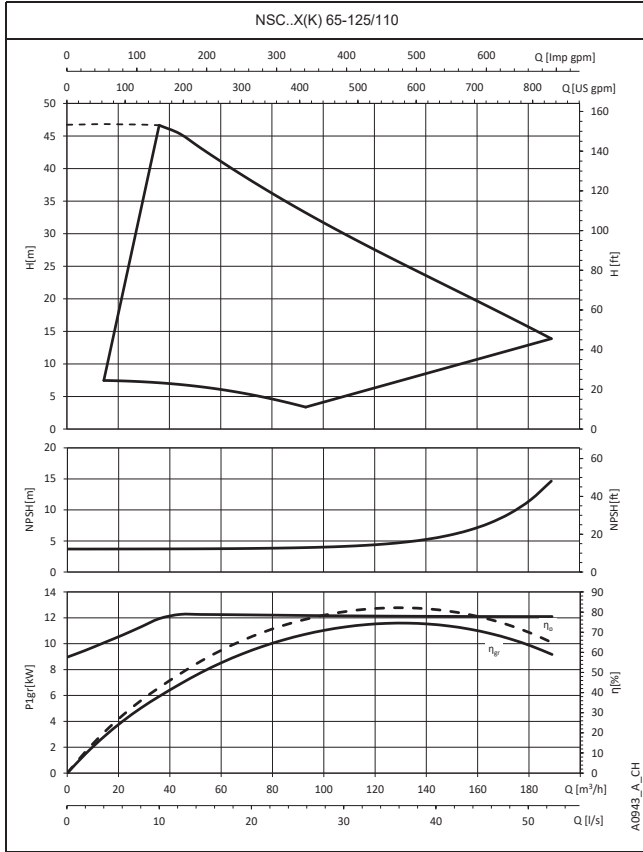
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

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



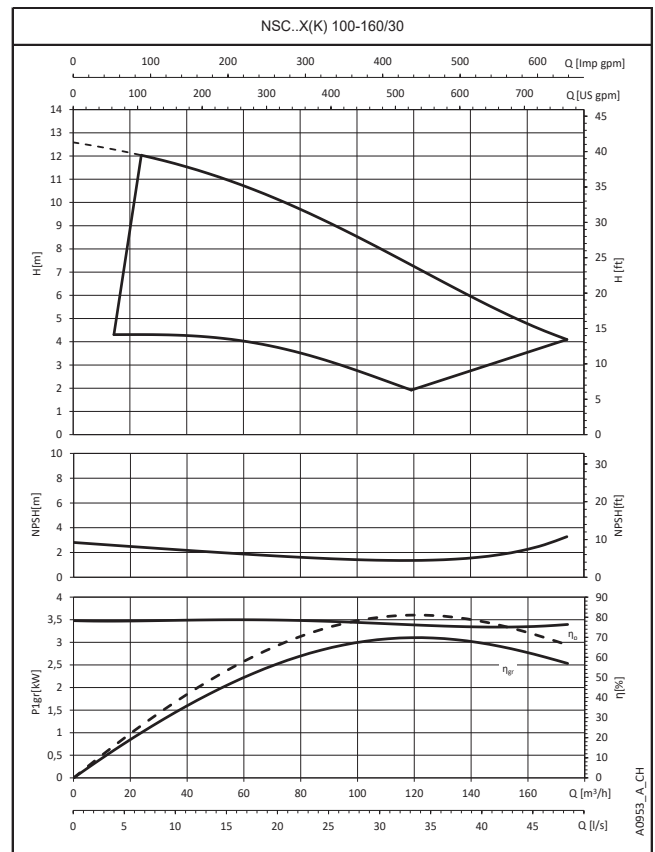
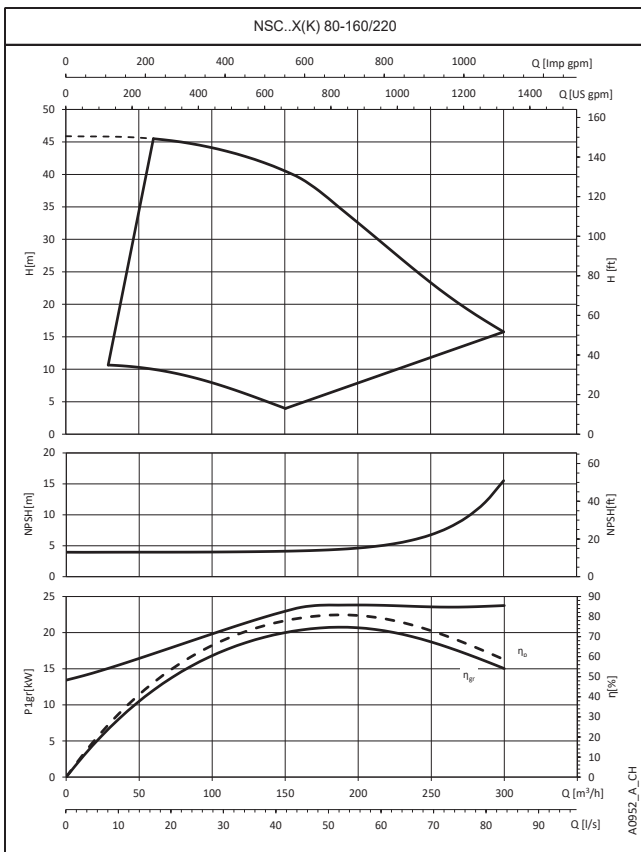
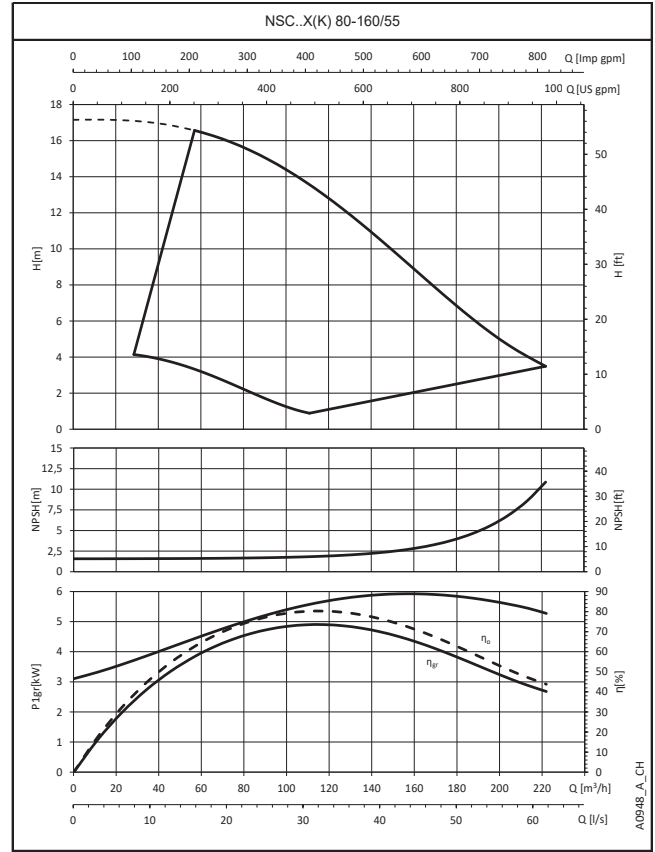
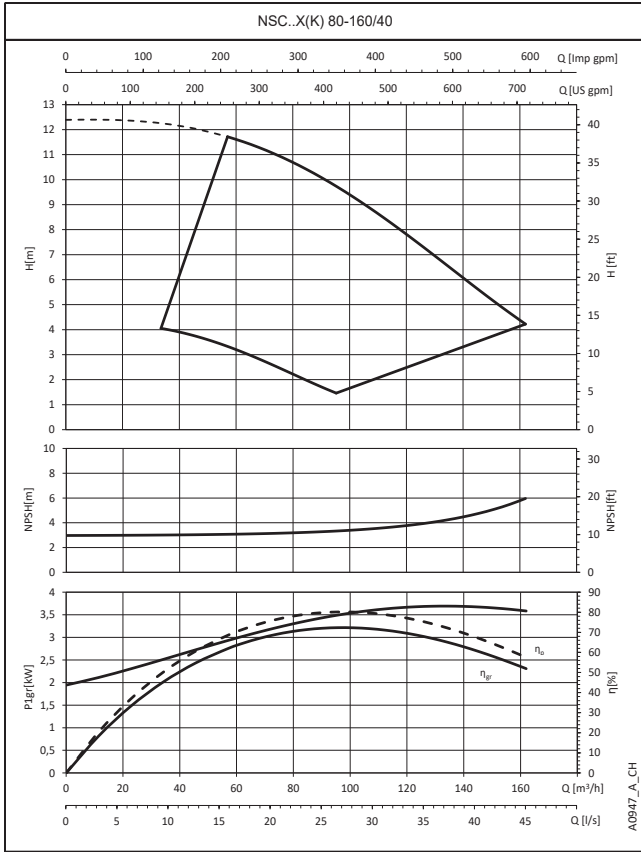
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

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



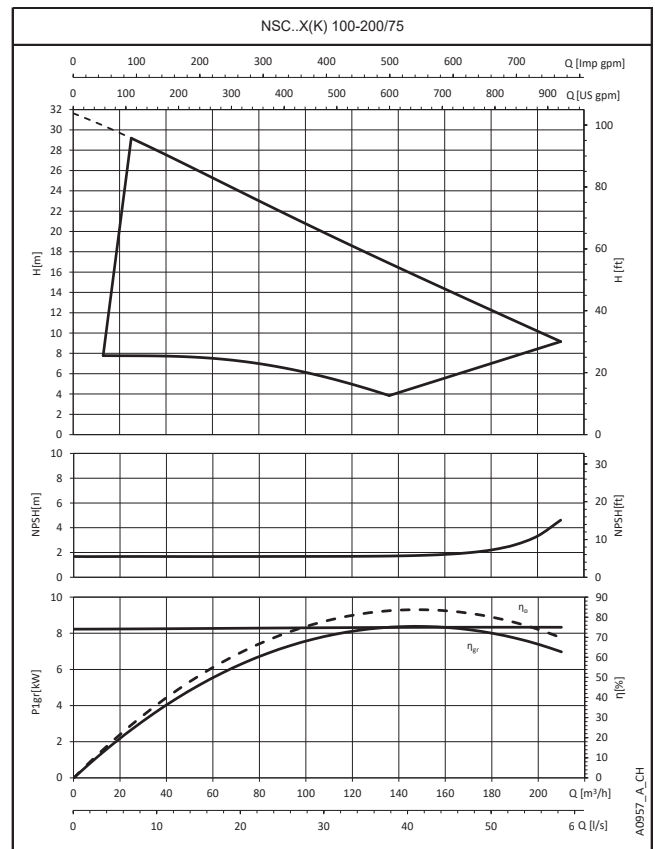
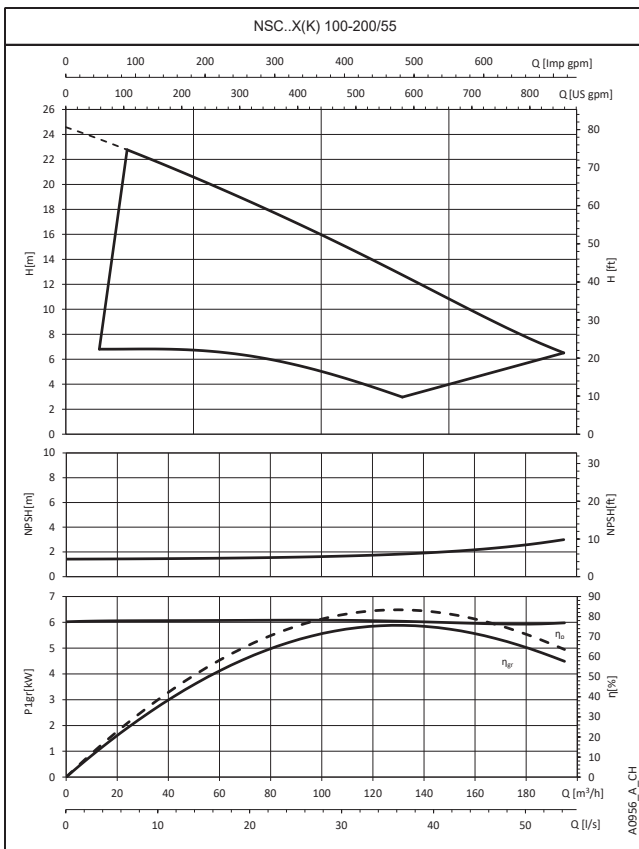
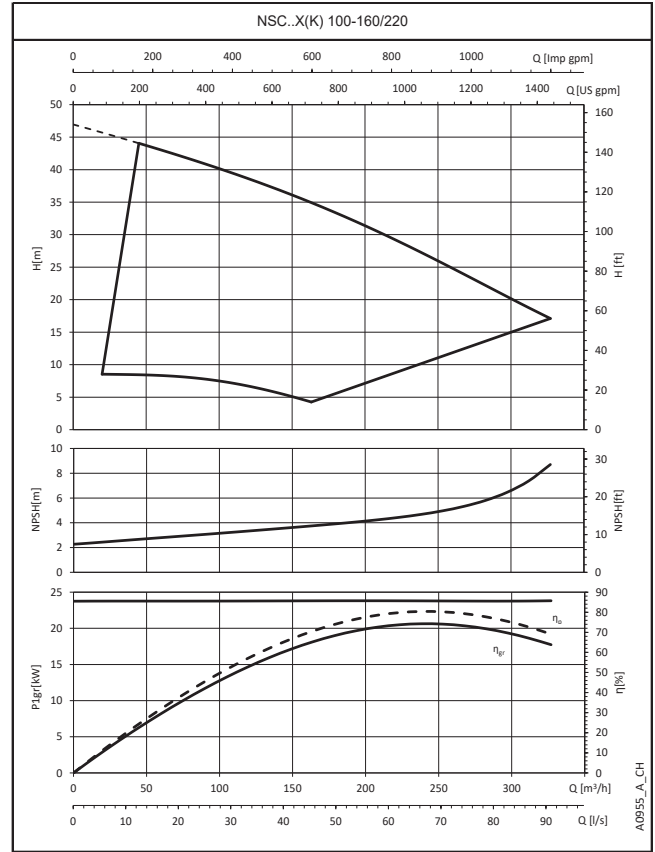
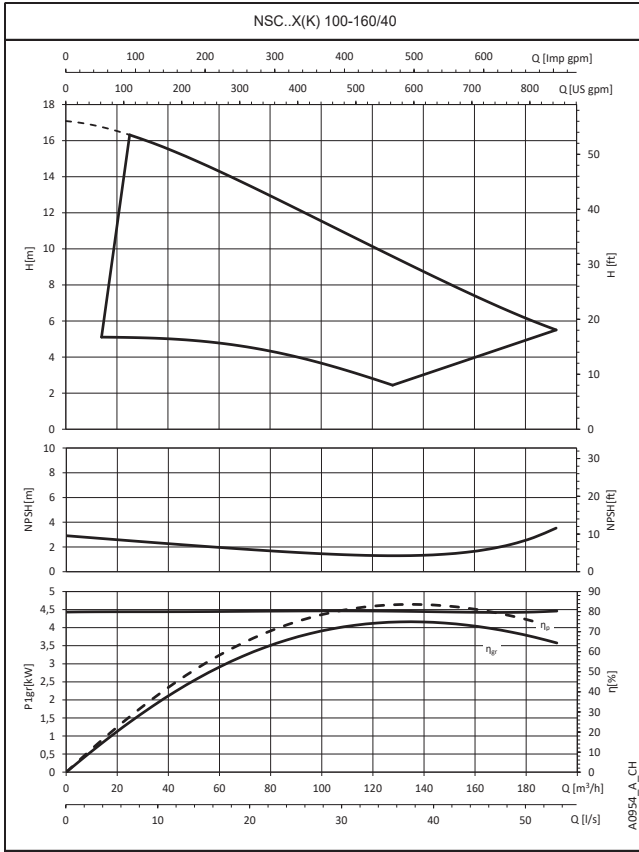
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

**e-NSC..X, e-NSC..K SERIES
OPERATING CHARACTERISTICS**



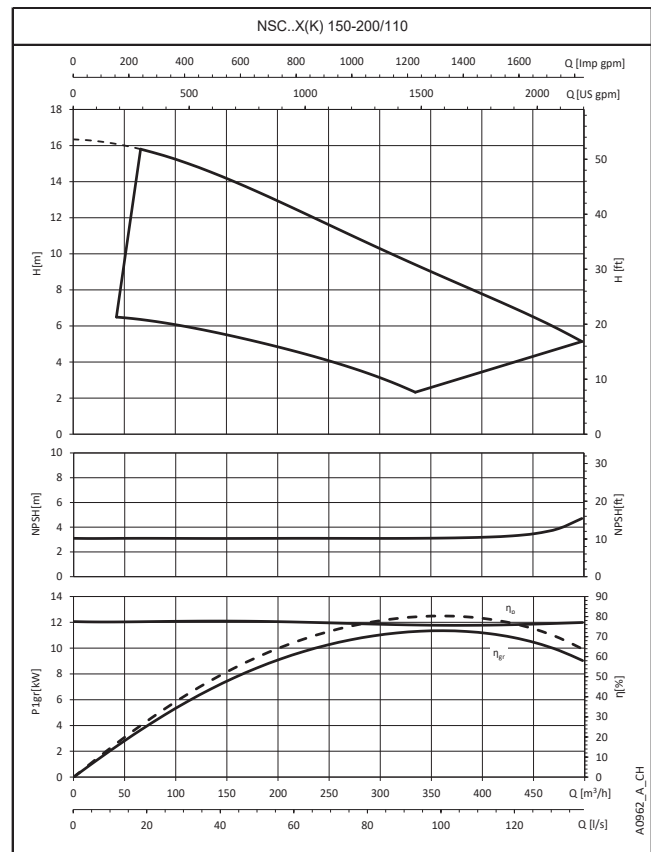
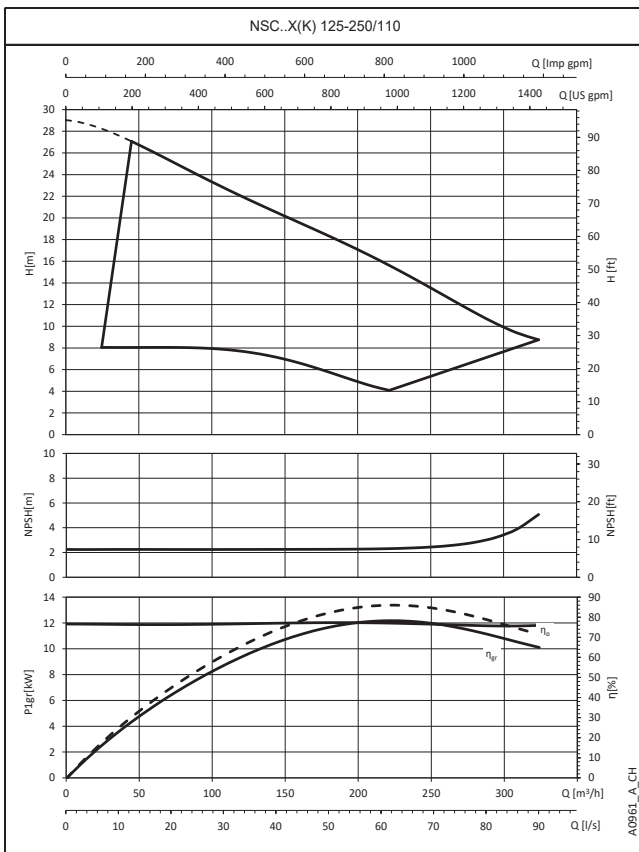
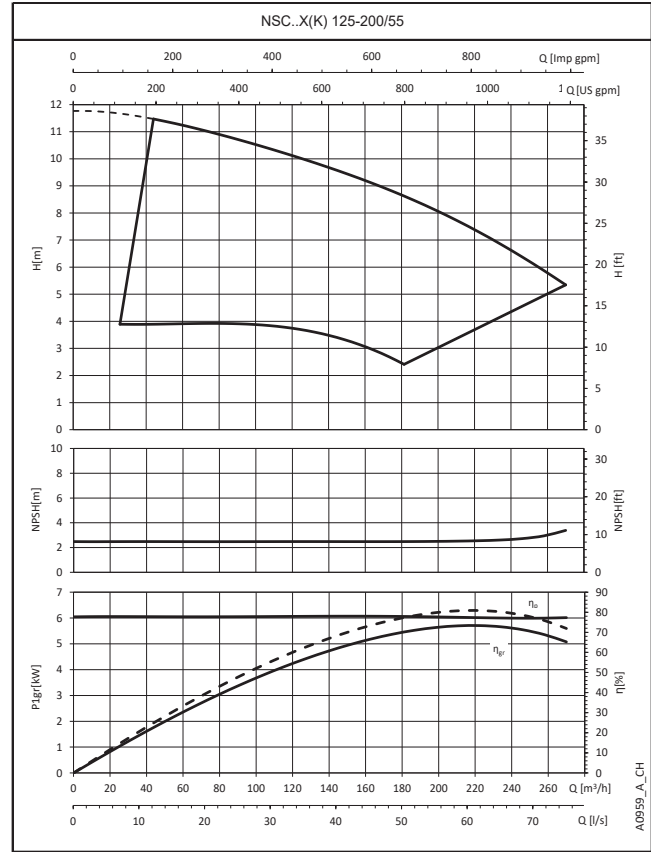
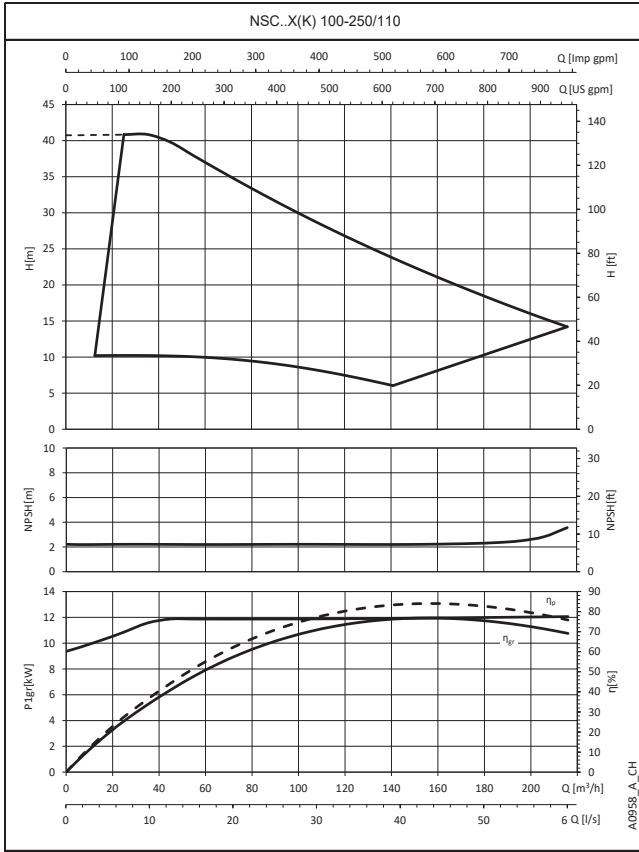
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

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



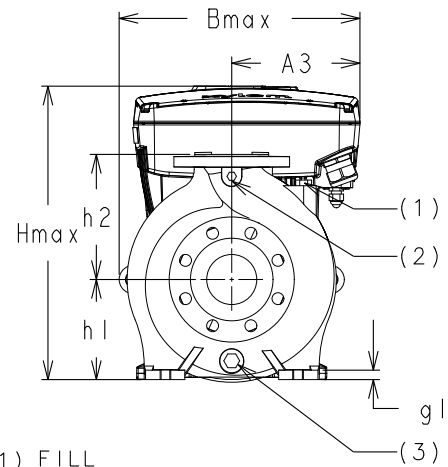
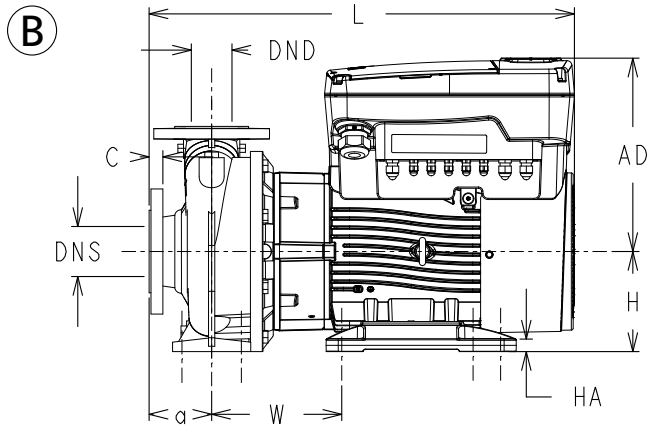
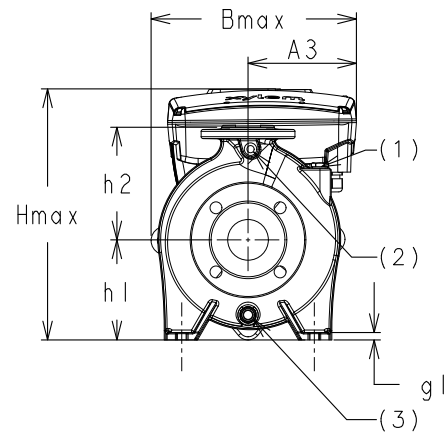
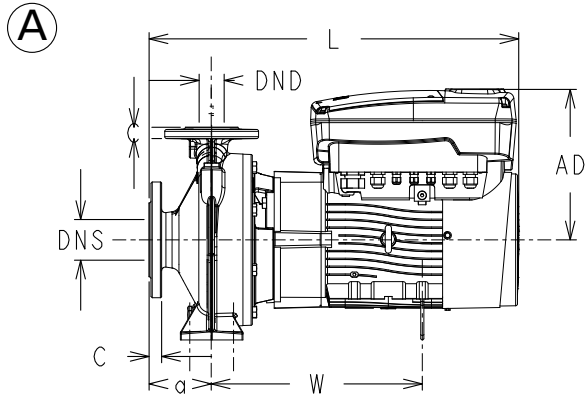
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

**e-NSC..X, e-NSC..K SERIES
OPERATING CHARACTERISTICS**



These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

**e-NSCEX, e-NSCEK SERIES
DIMENSIONS AND WEIGHTS**



- (1) FILL
- (2) PRESSURE GAUGE CONNECTOR
- (3) DRAIN

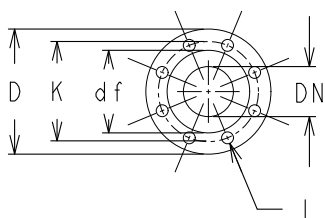
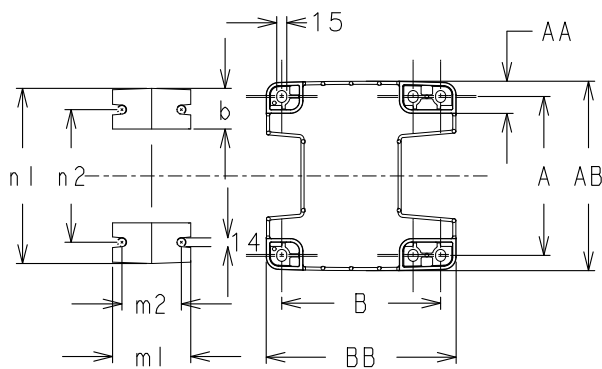
CONNECTIONS

	DND≤100	DND≤150	DND≥200
1)	G 1/8	G 3/8	-
2)	G 1/4	G 1/4	G 1/2
3)	G 3/8	G 3/8	G 1/2

FLANGES

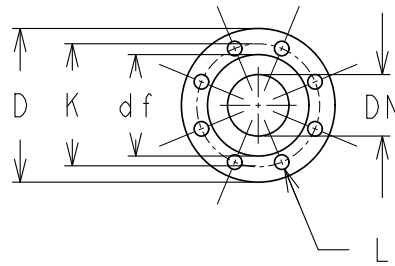
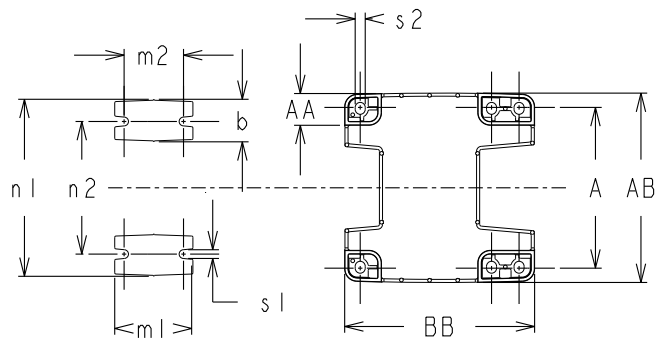
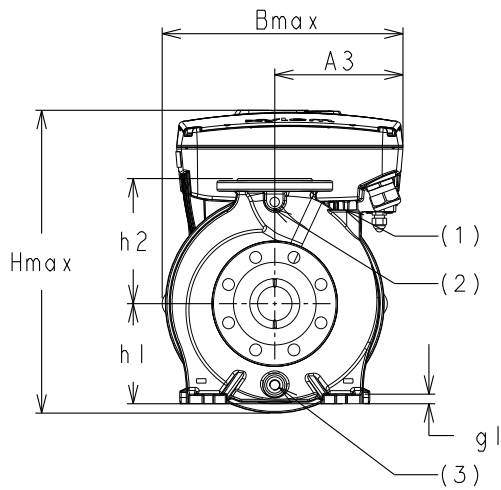
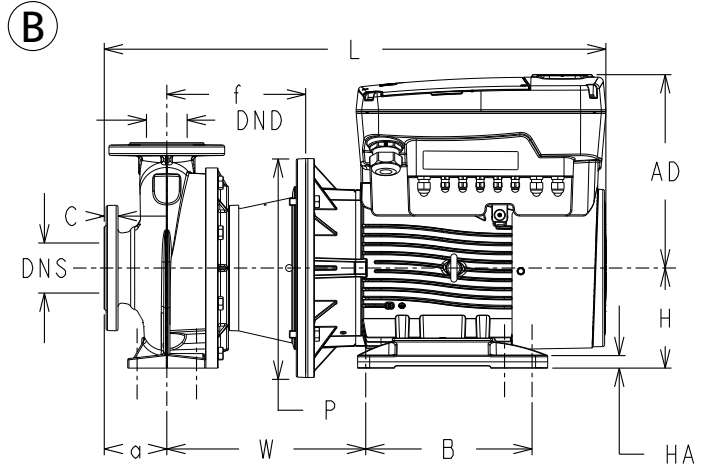
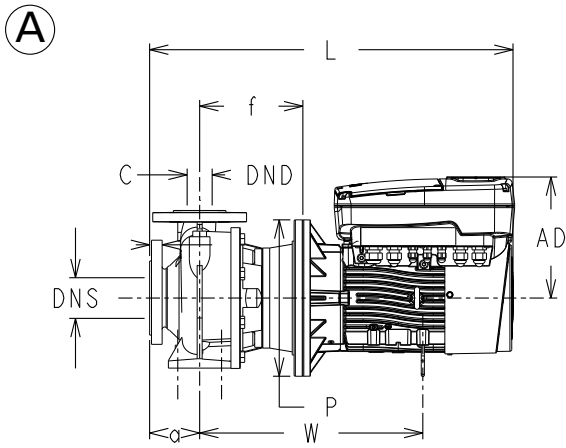
EN1092-2, PN 16 *)					
DN	D	K	C	df	Lf
32	140	100	18	76	4x19
40	150	110	18	84	4x19
50	165	125	20	99	4x19
65	185	145	20	118	4x19
80	200	160	22	132	8x19
100	230	180	24	157	8x19
125	255	210	26	184	8x19
150	285	240	26	211	8x23

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



A0008-EXM-EN_A_DD

**e-NSCSX, e-NSCSK SERIES
DIMENSIONS AND WEIGHTS**



(1) FILL

(2) PRESSURE GAUGE CONNECTOR

(3) DRAIN

CONNECTIONS

	DND≤100	DND≤150	DND≥200
1)	G 1/8	G 3/8	-
2)	G 1/4	G 1/4	G 1/2
3)	G 3/8	G 3/8	G 1/2

FLANGES

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

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

A0009:EXMEN_A_DD

NSC..H

e-NSC WITH HYDROVAR

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

Benefits of e-NSC with HYDROVAR

Saving: NSC..H transforms the NSC 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: NSC..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: NSC..H models are fitted with three-phase standard TEFC motors with insulation class 155 (F).

Identification code:

NSC..H models are identified by the letter "H" and the last two characters.

Examples:

NSCE**H**80-160/22/P45RCC4 /**2**

NSCE**H**50-250/22/P45RCS4 /**3**

NSCS**H**50-200/185/P25VCSZ /**4**

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)

Key Features of the HYDROVAR

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

The NSC..H is fitted with a pressure transmitter or differential pressure transmitters, depending on the application.

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

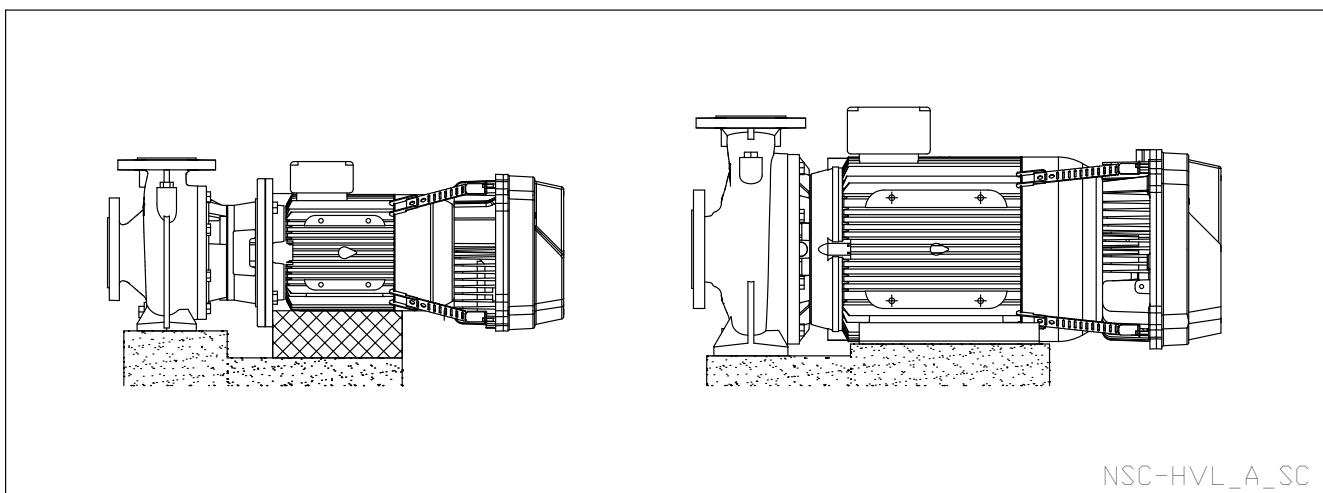
- **NSC..H is already pre-wired.**

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

The NSC..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.



NSC..H SERIES

e-NSC WITH HYDROVAR

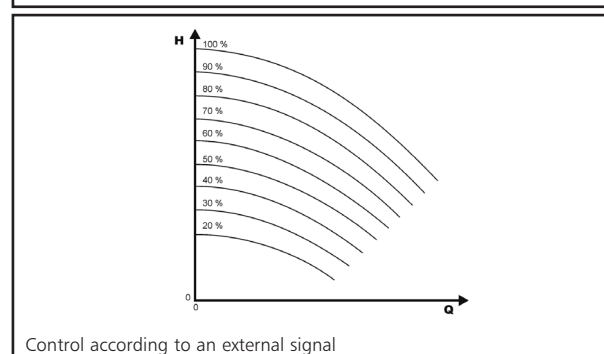
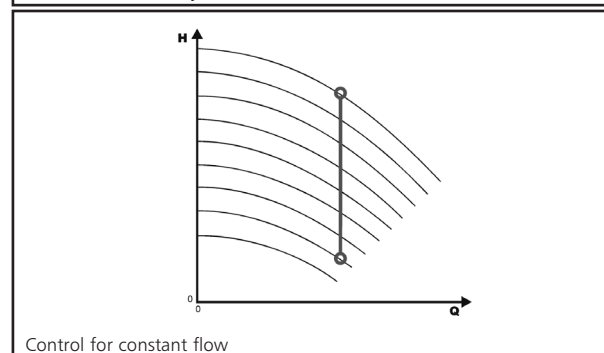
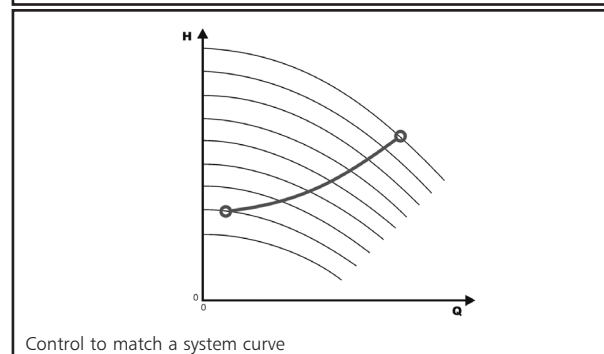
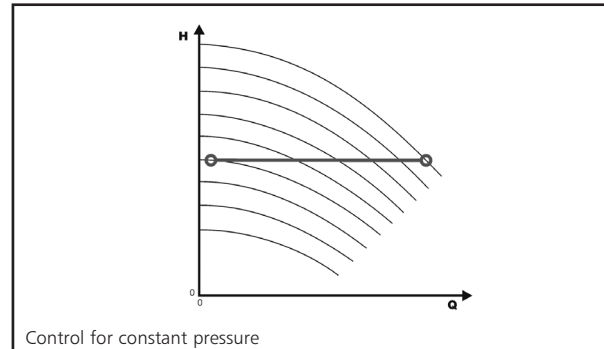
The basic function of the HYDROVAR device is to control the pump to meet the system demands.

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.



NSC..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 kW	Phase	UNin V	Pa kVA	Power losses (PL) with 10 KHz frequency										IE
				% Pa										
				(% rated speed; % rated torque)										
				stand-by	0;25	0;50	0;100	50;25	50;50	50;100	90;50	90;100		
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			~3	380-460	2,56	0,4%	1,2%	1,5%	1,8%	1,3%	1,6%	2,1%		1,6%
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

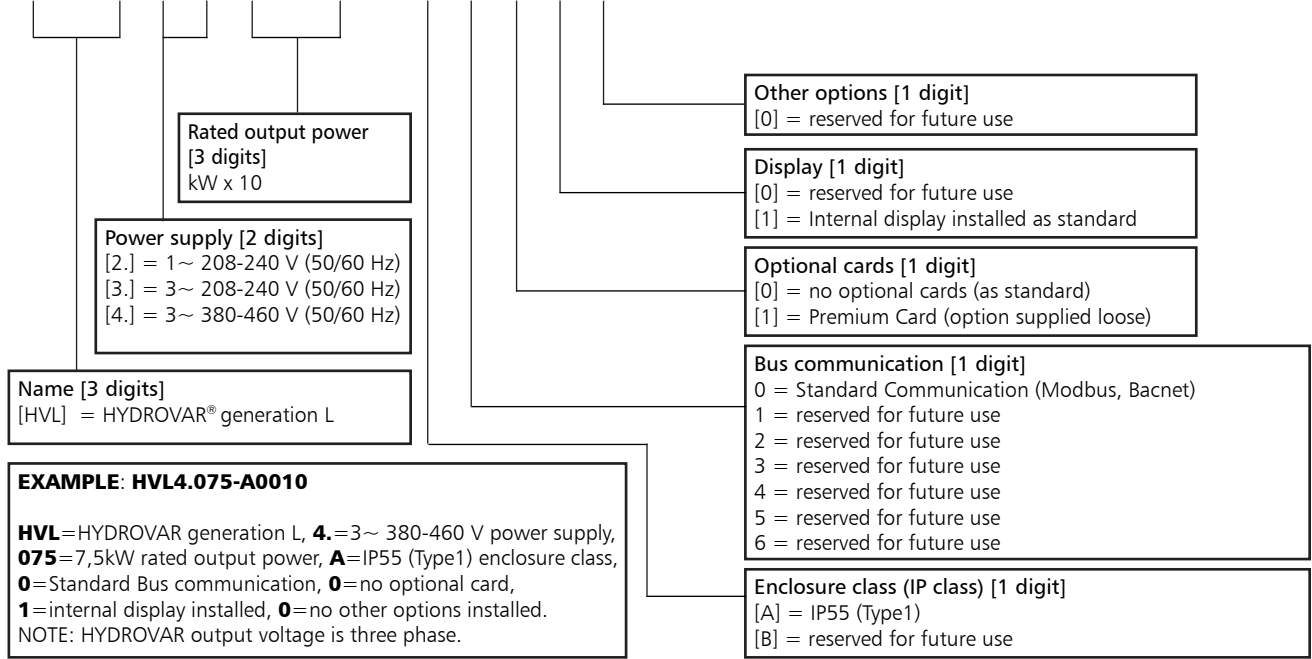
PN kW	~	UNin V	Manufacturer		f _{Nin} Hz	I _{Nin} max A	U _{nout} V	f _{Nout} Hz	I _{nout} max A	Operating conditions*			
			Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore (VI) - Italia							Altitude asl m	T.amb min/max °C	ATEX	
			Model										
1,5	1	208-240	HVL 2.015-..		50/60	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-..		50/60	7	0-100% U _{Nin}	15-70	7,5	≤1000	-15/40	No	
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	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

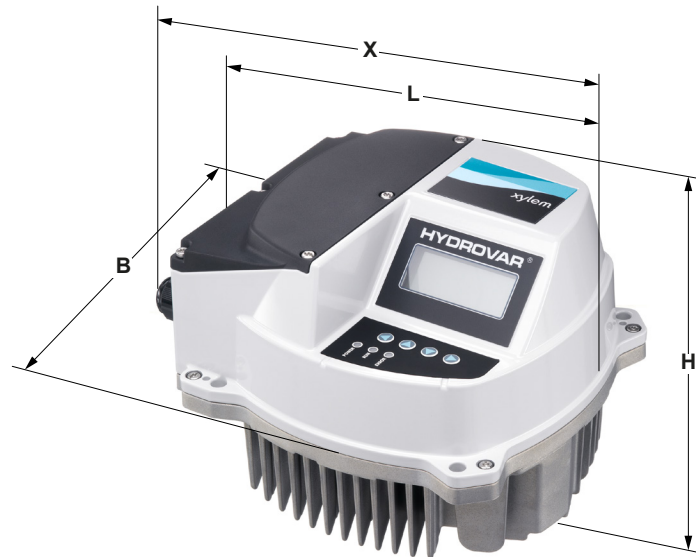
hvl-en_b_te

HYDROVAR HVL IDENTIFICATION CODE

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



DIMENSIONS AND WEIGHTS



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

HVL_dim-en_b_td

HYDROVAR HVL EMC COMPATIBILITY

EMC requirements

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

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

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

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

En-Rev_A

CARD

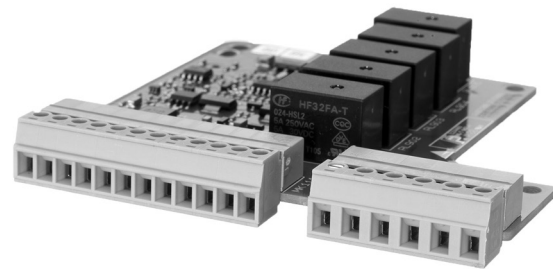
Premium Card HYDROVAR

For the NSC..H the Premium Card comes fitted as standard on the standalone HYDROVAR.

This allows to control up to five fix speed pumps via an external panel.

The Premium Card will allow additional features listed below:

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



OPTIONAL COMPONENTS

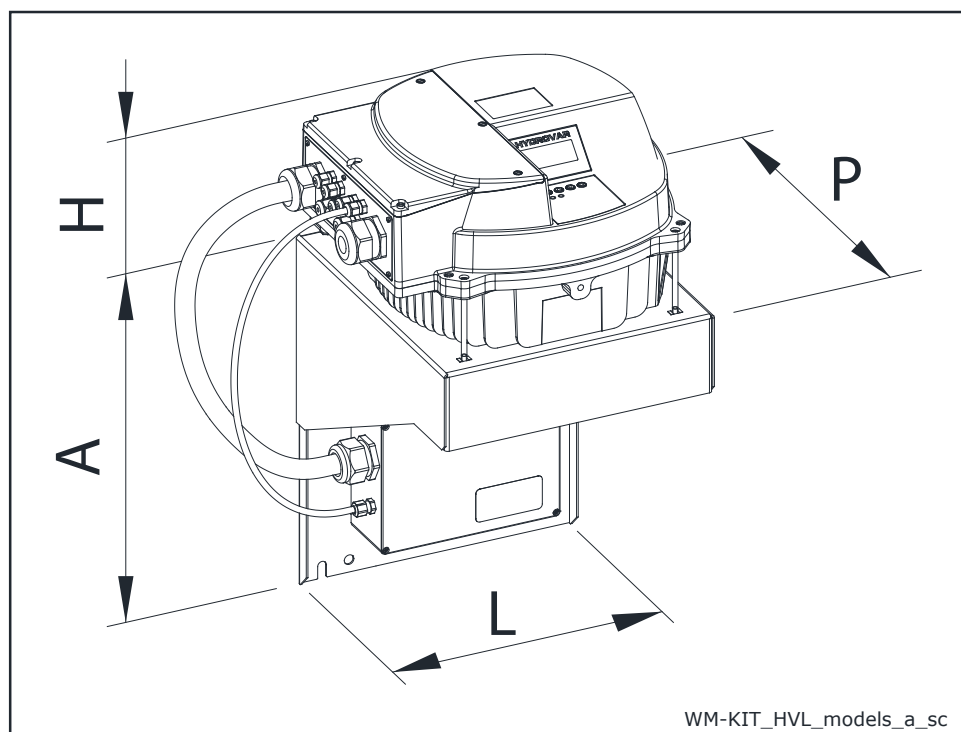
Sensors

The following sensors are available for HYDROVAR:

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

HYDROVAR HVL (WALL MOUNTING KIT) DIMENSIONS AND WEIGHTS

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

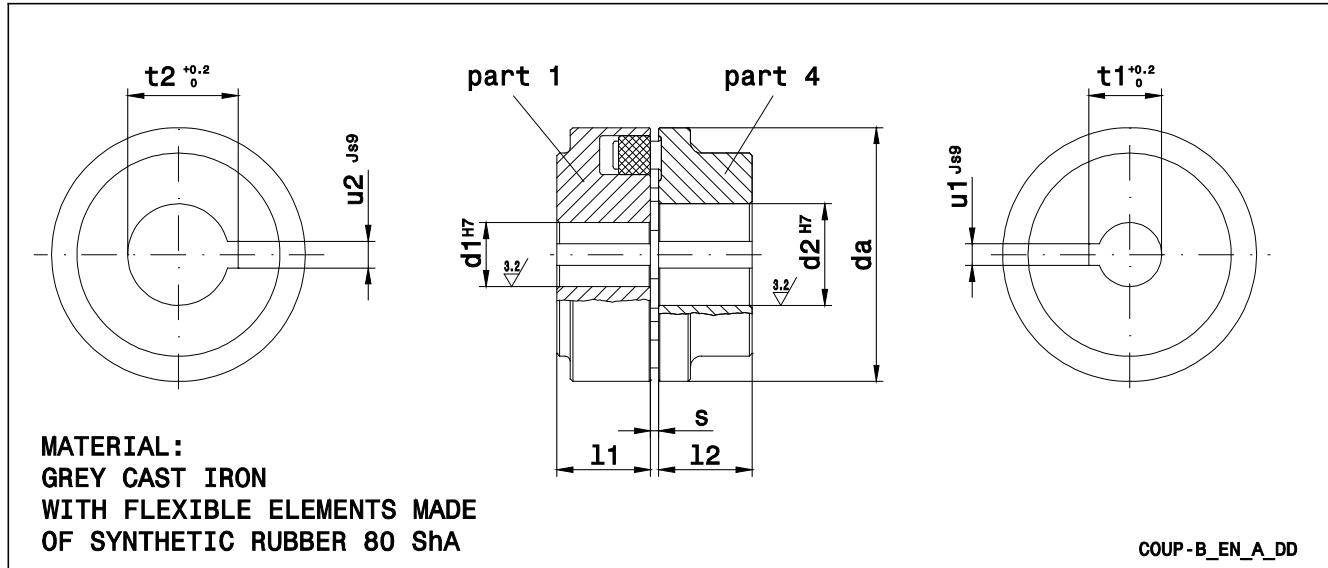


WM KIT TYPE	kW	WM KIT POWER SUPPLY	HVL SIZE	DIMENSIONS (mm)				WEIGHT (kg)	
				A	H	L	P	HVL	WM KIT
WM KIT HVL 2.015	1,5	1~ 230V	A	220	170	202	232	5,6	2,6
WM KIT HVL 2.022	2,2			220	170	202	232	5,6	2,6
WM KIT HVL 2.030	3		B	240	175	258	290	10,5	8,2
WM KIT HVL 2.040	4			320	175	288	305	10,5	5,4
WM KIT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

WM-KIT_HVL_models-EN_b_td

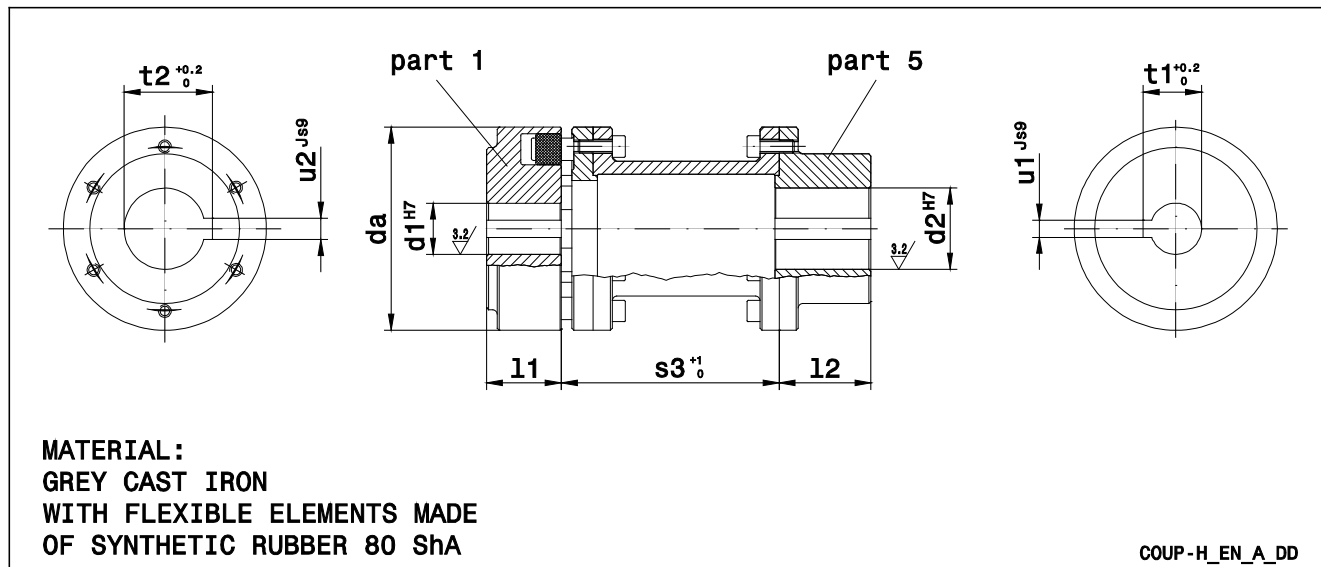
ACCESSORIES

FLEXIBLE COUPLING DIMENSIONS



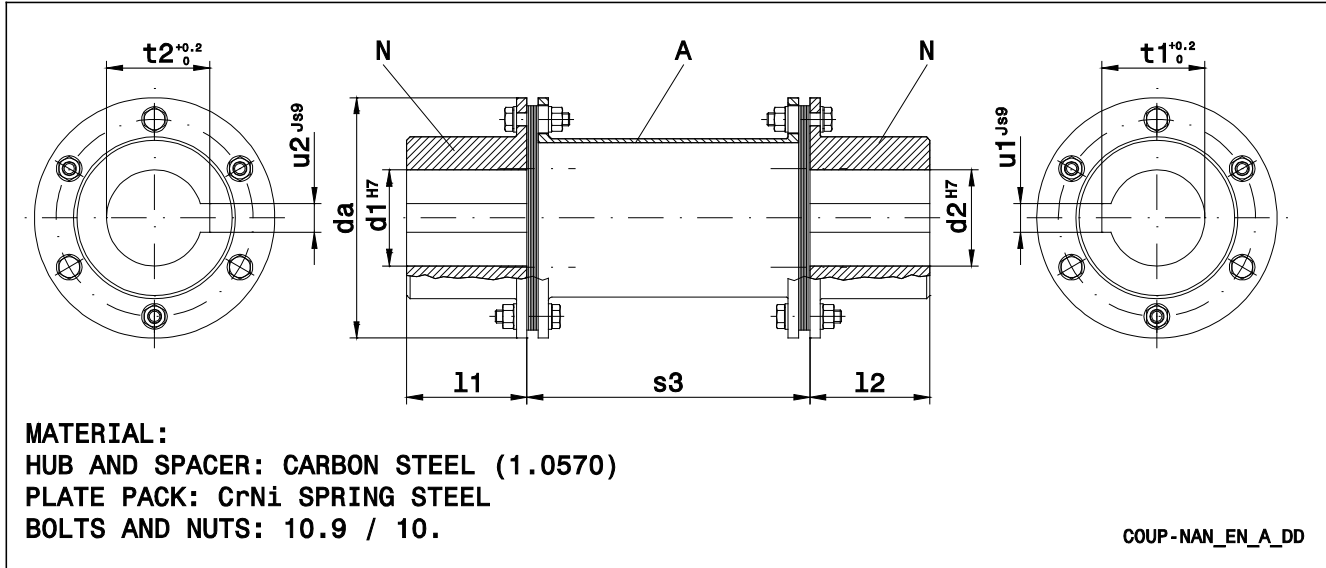
REF.	DENOMINATION	DIMENSIONS (mm)									
		d _a	PART 1 PUMP-SIDE HALF COUPLING				PART 4 MOTOR-SIDE HALF COUPLING				
			d ₁ ^{H7}	l ₁	u ₁ ^{js9}	t ₁ 0 ^{+0.2}	d ₂ ^{H7}	l ₂	u ₂ ^{js9}	t ₂ 0 ^{+0.2}	
B68A	B 68 x 24 x 14	68	24	20	8	27,3	2÷4	14	20	5	16,3
B68B	B 68 x 24 x 19	68	24	20	8	27,3	2÷4	19	20	6	21,8
B68C	B 68 x 24 x 24	68	24	20	8	27,3	2÷4	24	20	8	27,3
B80A	B 80 x 24 x 28	80	24	30	8	27,3	2÷4	28	30	8	31,3
B95A	B 95 x 24 x 38	95	24	35	8	27,3	2÷4	38	35	10	41,3
B95B	B 95 x 24 x 42	95	24	35	8	27,3	2÷4	42	35	12	45,3
B95C	B 95 x 32 x 28	95	32	35	10	35,3	2÷4	28	35	8	31,3
B95D	B 95 x 32 x 38	95	32	35	10	35,3	2÷4	38	35	10	41,3
B95E	B 95 x 32 x 42	95	32	35	10	35,3	2÷4	42	35	12	45,3
B95F	B 95 x 42 x 42	95	42	35	12	45,3	2÷4	42	35	12	45,3
B110A	B 110 x 24 x 48	110	24	40	8	27,3	2÷4	48	40	14	51,8
B110B	B 110 x 32 x 48	110	32	40	10	35,3	2÷4	48	40	14	51,8
B110C	B 110 x 42 x 42	110	42	40	12	45,3	2÷4	42	40	12	45,3
B110D	B 110 x 42 x 48	110	42	40	12	45,3	2÷4	48	40	14	51,8
B110E	B 110 x 32 x 42	110	32	35	10	35,3	2÷4	42	35	12	45,3
B125A	B 125 x 32 x 48	125	32	50	10	35,3	2÷4	48	50	14	51,8
B125B	B 125 x 32 x 55	125	32	50	10	35,3	2÷4	55	50	16	59,3
B125C	B 125 x 42 x 55	125	42	50	12	45,3	2÷4	55	50	16	59,3
B125D	B 125 x 24 x 55	125	24	50	8	27,3	2÷4	55	50	16	59,3
B140A	B 140 x 32 x 60	140	32	55	10	35,3	2÷4	60	55	18	64,4
B140B	B 140 x 42 x 60	140	42	55	12	45,3	2÷4	60	55	18	64,4
B140C	B 140 x 60 x 55	140	60	70	18	64,4	2÷4	55	50	16	59,3
B140D	B 140 x 60 x 60	140	60	70	18	64,4	2÷4	60	55	18	64,4
B160A	B 160 x 32 x 65	160	32	60	10	35,3	2÷6	65	60	18	69,4
B160B	B 160 x 42 x 65	160	42	60	12	45,3	2÷6	65	60	18	69,4
B160C	B 160 x 60 x 65	160	60	60	18	64,4	2÷6	65	60	18	69,4
B180A	B 180 x 42 x 65	180	42	70	12	45,3	2÷6	65	60	18	69,4
B180B	B 180 x 42 x 75	180	42	70	12	45,3	2÷6	75	70	20	79,9
B180C	B 180 x 60 x 75	180	60	70	18	64,4	2÷6	75	70	20	79,9
B200A	B 200 x 60 x 80	200	60	80	18	64,4	2÷6	80	80	22	85,4
B225A	B 225 x 60 x 80	225	60	90	18	64,4	2÷6	80	90	22	85,4
B250A	B 250 x 60 x 100	250	60	100	18	64,4	3÷8	100	100	28	106,4

SPACER COUPLING DIMENSIONS



REF.	DENOMINATION	DIMENSIONS (mm)									
		da	s _{3 0} ⁺¹	PART 1				PART 5			
				PUMP-SIDE HALF COUPLING				MOTOR-SIDE HALF COUPLING			
SIZE x l x d ₁ x d ₂	d ₁ ^{H7}	l ₁	u ₁ ^{js9}	t _{1 0} ^{+0.2}	d ₂ ^{H7}	l ₂	u ₂ ^{js9}	t _{2 0} ^{+0.2}			
H80A	H 80-100 x 24 x 19	80	100	24	30	8	27,3	19	45	6	21,8
H80B	H 80-100 x 24 x 24	80	100	24	30	8	27,3	24	45	8	27,3
H80C	H 80-100 x 24 x 28	80	100	24	30	8	27,3	28	45	8	31,3
H80D	H 80-100 x 24 x 14	80	100	24	30	8	27,3	14	45	5	16,3
H80E	H 80-140 x 24 x 24	80	140	24	30	8	27,3	24	45	8	27,3
H80F	H 80-140 x 24 x 28	80	140	24	30	8	27,3	28	45	8	31,3
H80G	H 80-140 x 32 x 28	80	140	32	30	10	35,3	28	45	8	31,3
H95A	H 95-100 x 24 x 38	95	100	24	35	8	27,3	38	45	10	41,3
H95B	H 95-100 x 24 x 42	95	100	24	35	8	27,3	42	45	12	45,3
H95C	H 95-140 x 32 x 28	95	140	32	35	10	35,3	28	45	8	31,3
H95D	H 95-140 x 32 x 38	95	140	32	35	10	35,3	38	45	10	41,3
H95E	H 95-140 x 32 x 42	95	140	32	35	10	35,3	42	45	12	45,3
H95F	H 95-140 x 42 x 42	95	140	42	35	12	45,3	42	45	12	45,3
H95G	H 95-140 x 24 x 42	95	140	24	35	8	27,3	42	45	12	45,3
H95H	H 95-140 x 24 x 38	95	140	24	35	8	27,3	38	45	10	41,3
H110A	H 110-100 x 24 x 48	110	100	24	40	8	27,3	48	50	14	51,8
H110B	H 110-140 x 32 x 48	110	140	32	40	10	35,3	48	50	14	51,8
H110C	H 110-140 x 42 x 48	110	140	42	40	12	45,3	48	50	14	51,8
H110D	H 110-140 x 24 x 48	110	140	24	40	8	27,3	48	50	14	51,8
H110E	H 110-140 x 32 x 42	110	140	32	40	10	35,3	42	45	12	45,3
H110F	H 110-140 x 42 x 42	110	140	42	40	12	45,3	42	45	12	45,3
H125A	H 125-100 x 24 x 55	125	100	24	50	8	27,3	55	50	16	59,3
H125B	H 125-140 x 32 x 48	125	140	32	50	10	35,3	48	50	14	51,8
H125C	H 125-140 x 32 x 55	125	140	32	50	10	35,3	55	50	16	59,3
H125D	H 125-140 x 42 x 55	125	140	42	50	12	45,3	55	50	16	59,3
H125E	H 125-200 x 42 x 48	125	200	42	50	12	45,3	48	70	14	51,8
H125F	H 125-200 x 42 x 55	125	200	42	50	12	45,3	55	70	16	59,3
H125G	H 125-140 x 24 x 55	125	140	24	50	8	27,3	55	50	16	59,3
H125H	H 125-200 x 42 x 42	125	200	42	50	12	45,3	42	45	12	45,3
H140A	H 140-140 x 32 x 60	140	140	32	55	10	35,3	60	65	18	64,4
H140B	H 140-140 x 42 x 60	140	140	42	55	12	45,3	60	65	18	64,4
H140C	H 140-200 x 42 x 60	140	200	42	55	12	45,3	60	65	18	64,4
H140D	H 140-250 x 60 x 60	140	250	60	60	18	64,4	60	65	18	64,4
H160A	H 160-140 x 32 x 65	160	140	32	60	10	35,3	65	70	18	69,4
H160B	H 160-140 x 42 x 65	160	140	42	60	12	45,3	65	70	18	69,4
H160C	H 160-200 x 42 x 65	160	200	42	60	12	45,3	65	70	18	69,4
H160D	H 160-250 x 60 x 65	160	250	60	60	18	64,4	65	80	18	69,4
H180A	H 180-140 x 42 x 65	180	140	42	70	12	45,3	65	80	18	69,4
H180B	H 180-140 x 42 x 75	180	140	42	70	12	45,3	75	80	20	79,9
H180C	H 180-200 x 42 x 75	180	200	42	70	12	45,3	75	80	20	79,9
H180D	H 180-250 x 60 x 75	180	250	60	70	18	64,4	75	80	20	79,9
H200A	H 200-250 x 60 x 80	200	250	60	80	18	64,4	80	90	22	85,4
H225A	H 225-250 x 60 x 80	225	250	60	90	18	64,4	80	100	22	85,4
H250A	H 250-250 x 60 x 100	250	250	60	100	18	64,4	100	110	28	106,4

SPACER COUPLING DIMENSIONS



REF.	DENOMINATION	DIMENSIONS (mm)										
		SIZE x l x d ₁ x d ₂	d _a	s ₃	N				N			
					PUMP-SIDE HALF COUPLING				MOTOR-SIDE HALF COUPLING			
d ₁ ^{H7}	l ₁	u ₁ ^{js9}	t _{1 0} ^{+0.2}	d ₂ ^{H7}	l ₂	u ₂ ^{js9}	t _{2 0} ^{+0.2}					
N135A	NAN 135-6 x 300 x 60 x 55	135	300	60	65	18	64,4	55	65	16	59,3	
N135B	NAN 135-6 x 300 x 60 x 60	135	300	60	65	18	64,4	60	65	18	64,4	
N135C	NAN 135-6 x 300 x 60 x 65	135	300	60	65	18	64,4	65	65	18	69,4	
N150A	NAN 150-6 x 300 x 60 x 75	150	300	60	75	18	64,4	75	75	20	79,9	
N176A	NAN 176-6 x 300 x 60 x 80	176	300	60	85	18	64,4	80	85	22	85,4	
N185A	NAN 185-6 x 300 x 60 x 80	185	300	60	90	18	64,4	80	90	22	85,4	
N212A	NAN 212-6 x 300 x 60 x 100	212	300	60	100	18	64,4	100	100	28	106,4	

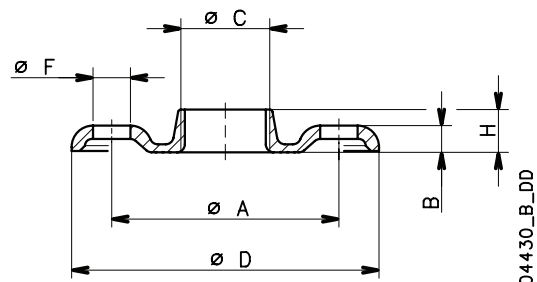
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e-NSC SERIES

DIMENSIONS OF ROUND THREADED COUNTERFLANGES ACCORDING TO EN 1092-1

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

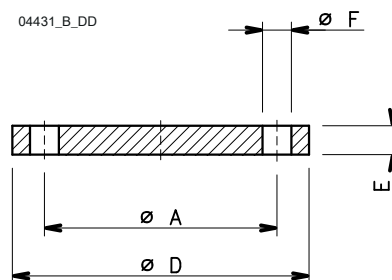
Nsc-ctf-tonde-f-en_a_td



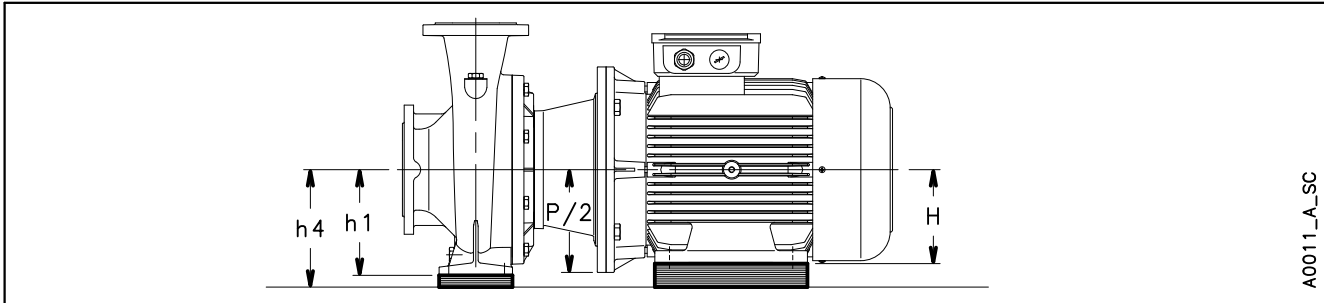
DIMENSIONS OF ROUND WELD COUNTERFLANGES ACCORDING TO EN 1092-1

DN	DIMENSIONS (mm)				HOLES		PN
	$\varnothing C$	$\varnothing A$	B	$\varnothing D$	$\varnothing F$	N°	
65	77,5	145	20	185	18	4	16
80	90,5	160	20	200	18	8	16
100	116	180	22	220	18	8	16
125	141,5	210	22	250	18	8	16
150	170,5	240	24	285	22	8	16
200	221,5	295	24	340	22	12	16
250	276,5	355	26	405	26	12	16
300	327,5	410	28	460	26	12	16
350	359,5	470	30	520	26	16	16

Nsc-ctf-tonde-s-en_b_td



**NSCE 32 ÷ 80 SERIES, 4 POLES
SHIM FOR PUMP AND MOTOR FEET**



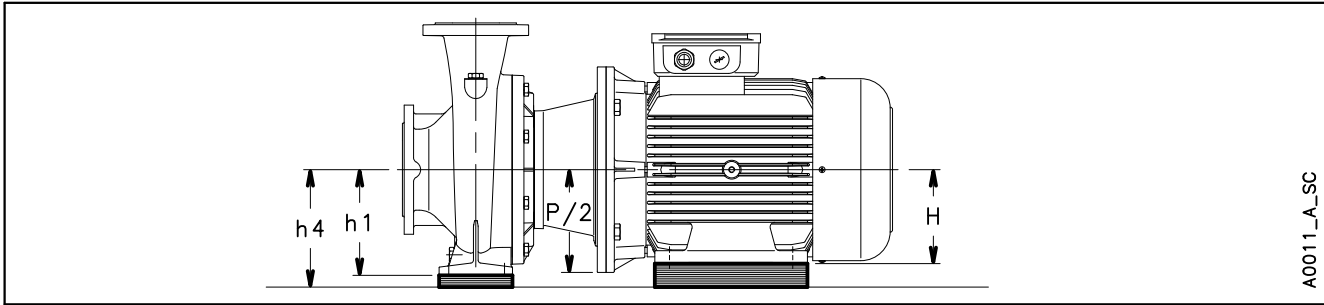
A0011_A_SC

PUMP TYPE NSCE..4	DIMENSIONS (mm)				SHIM* CODE	
	PUMP h1	MOTOR P/2	MOTOR H	h4	Pump	Motor
32-125/02B	112	-	-	112	-	-
32-125/02A	112	-	-	112	-	-
32-125/02	112	-	-	112	-	-
32-125/03	112	-	-	112	-	-
32-160/02	132	-	-	132	-	-
32-160/03	132	-	-	132	-	-
32-160/05A	132	-	-	132	-	-
32-160/05	132	-	-	132	-	-
32-200/05A	160	-	-	160	-	-
32-200/05	160	-	-	160	-	-
32-200/07	160	-	-	160	-	-
32-200/11	160	-	-	160	-	-
32-250/15B	180	-	-	180	-	-
32-250/15A	180	-	-	180	-	-
32-250/15	180	-	-	180	-	-
32-250/22	180	-	-	180	-	-
40-125/02A	112	-	-	112	-	-
40-125/02	112	-	-	112	-	-
40-125/03	112	-	-	112	-	-
40-125/05	112	-	-	112	-	-
40-160/03	132	-	-	132	-	-
40-160/05	132	-	-	132	-	-
40-160/07	132	-	-	132	-	-
40-160/11	132	-	-	132	-	-
40-200/07	160	-	-	160	-	-
40-200/11	160	-	-	160	-	-
40-200/15A	160	-	-	160	-	-
40-200/15	160	-	-	160	-	-
40-250/15A	180	-	-	180	-	-
40-250/15	180	-	-	180	-	-
40-250/22A	180	-	-	180	-	-
40-250/22	180	-	-	180	-	-
40-250/30	180	-	-	180	-	-
50-125/03	132	-	-	132	-	-
50-125/05	132	-	-	132	-	-
50-125/07	132	-	-	132	-	-
50-125/11	132	-	-	132	-	-
50-160/07	160	-	-	160	-	-
50-160/11A	160	-	-	160	-	-
50-160/11	160	-	-	160	-	-
50-160/15	160	-	-	160	-	-

PUMP TYPE NSCE..4	DIMENSIONS (mm)				SHIM* CODE	
	PUMP h1	MOTOR P/2	MOTOR H	h4	Pump	Motor
50-200/15A	160	-	-	160	-	-
50-200/15	160	-	-	160	-	-
50-200/22A	160	-	-	160	-	-
50-200/22	160	-	-	160	-	-
50-250/22A	180	-	-	180	-	-
50-250/22	180	-	-	180	-	-
50-250/30	180	-	-	180	-	-
50-250/40	180	-	-	180	-	-
65-125/05	160	-	-	160	-	-
65-125/07	160	-	-	160	-	-
65-125/11	160	-	-	160	-	-
65-125/15	160	-	-	160	-	-
65-160/15B	160	-	-	160	-	-
65-160/15A	160	-	-	160	-	-
65-160/15	160	-	-	160	-	-
65-160/22A	160	-	-	160	-	-
65-160/22	160	-	-	160	-	-
65-200/15	180	-	-	180	-	-
65-200/22A	180	-	-	180	-	-
65-200/22	180	-	-	180	-	-
65-200/30	180	-	-	180	-	-
65-200/40	180	-	-	180	-	-
80-160/15	180	-	-	180	-	-
80-160/22A	180	-	-	180	-	-
80-160/22	180	-	-	180	-	-
80-160/30	180	-	-	180	-	-

* On request.

**NSCS 100 ÷ 125 SERIES, 2 POLES
SHIM FOR PUMP AND MOTOR FEET**



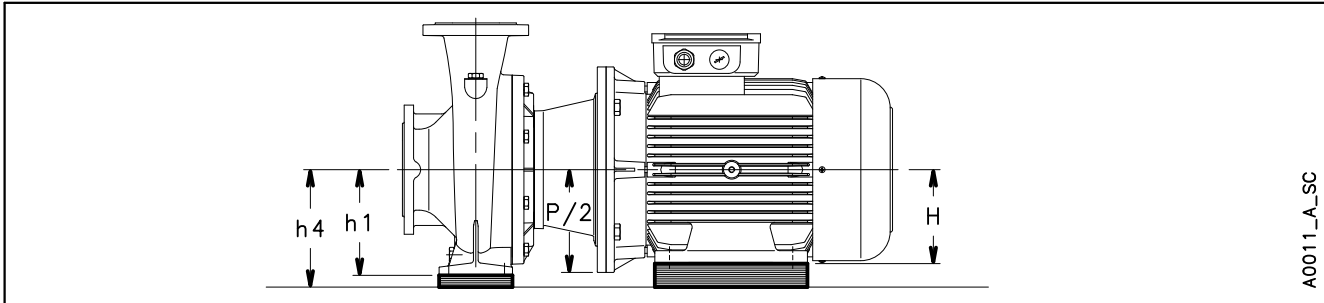
A0011_A_SC

PUMP TYPE NSCS..2	DIMENSIONS (mm)				SHIM* CODE	
	PUMP h1	MOTOR		h4	Pump	Motor
		P/2	H			
100-160/150	200	175	160	200	-	4 x 161407670
100-160/185	200	175	160	200	-	4 x 161407670
100-160/220	200	175	160	200	-	4 x 161407670
100-160/300	200	200	200	200	-	-
100-200/300	200	200	200	200	-	-
100-200/370	200	200	200	200	-	-
100-200/450	200	225	225	225	2 x 161404380	-
100-200/550	200	275	250	280	2 x 768003170 2 x 768003190	2 x 161407990
100-250/450	225	225	225	225	-	-
100-250/550	225	275	250	280	2 x 768003140 2 x 768003180	2 x 161407990
100-250/750	225	275	280	280	2 x 768003140 2 x 768003180	-
100-250/900	225	275	280	280	2 x 768003140 2 x 768003180	-
125-200/450	250	225	225	250	-	2 x 768082120
125-200/550	250	275	250	280	2 x 768003170	2 x 161407990
125-200/750	250	275	280	280	2 x 768003170	-
125-200/900	250	275	280	280	2 x 768003170	-

PUMP TYPE NSCS..2	DIMENSIONS (mm)				SHIM* CODE	
	PUMP h1	MOTOR		h4	Pump	Motor
		P/2	H			

* On request.

NSCS 32 ÷ 80 SERIES, 4 POLES SHIM FOR PUMP AND MOTOR FEET



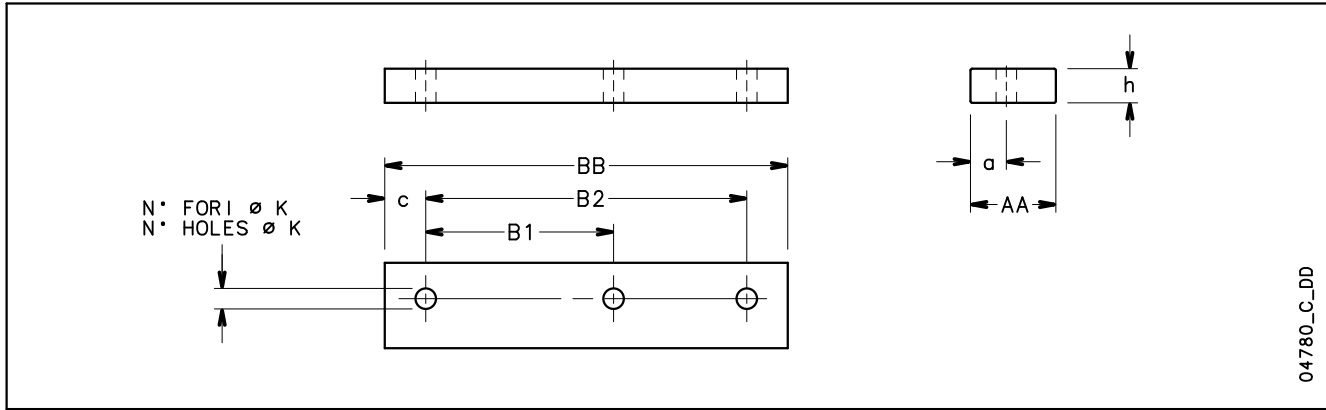
PUMP TYPE NSCS..4	DIMENSIONS (mm)				SHIM* CODE	
	PUMP h1	MOTOR P/2	MOTOR H	h4	Pump	Motor
32-160/05A	132	100	79,5	132	-	-
32-160/05	132	100	79,5	132	-	-
32-200/05A	160	100	79,5	160	-	-
32-200/05	160	100	79,5	160	-	-
32-200/07	160	100	-	160	-	-
32-200/11	160	100	-	160	-	-
32-250/11A	180	100	-	180	-	-
32-250/11	180	100	-	180	-	-
32-250/15	180	100	-	180	-	-
32-250/22	180	125	-	180	-	-
40-125/05	112	100	79,5	112	-	-
40-160/03	132	100	-	132	-	-
40-160/05	132	100	79,5	132	-	-
40-160/07	132	100	-	132	-	-
40-160/11	132	100	-	132	-	-
40-200/07	160	100	-	160	-	-
40-200/11	160	100	-	160	-	-
40-200/15A	160	100	-	160	-	-
40-200/15	160	100	-	160	-	-
40-250/11	180	100	-	180	-	-
40-250/15	180	100	-	180	-	-
40-250/22A	180	125	-	180	-	-
40-250/22	180	125	-	180	-	-
40-250/30	180	125	-	180	-	-
50-125/05	132	100	79,5	132	-	-
50-125/07	132	100	-	132	-	-
50-125/11	132	100	-	132	-	-
50-160/07	132	100	-	132	-	-
50-160/11A	160	100	-	160	-	-
50-160/11	160	100	-	160	-	-
50-160/15	160	100	-	160	-	-
50-200/11	160	100	-	160	-	-
50-200/15	160	100	-	160	-	-
50-200/22A	160	125	-	160	-	-
50-200/22	160	125	-	160	-	-
50-250/22A	180	125	-	180	-	-
50-250/22	180	125	-	180	-	-
50-250/30	180	125	-	180	-	-
50-250/40	180	125	-	180	-	-
50-315/40	225	125	-	225	-	-
50-315/55	225	150	-	225	-	-
50-315/75	225	150	-	225	-	-
50-315/110	225	175	160	225	-	1 x 743760350▲

PUMP TYPE NSCS..4	DIMENSIONS (mm)				SHIM* CODE	
	PUMP h1	MOTOR P/2	MOTOR H	h4	Pump	Motor
65-125/05	160	100	79,5	160	-	-
65-125/07	160	100	-	160	-	-
65-125/11	160	100	-	160	-	-
65-125/15	160	100	-	160	-	-
65-160/11A	160	100	-	160	-	-
65-160/11	160	100	-	160	-	-
65-160/15	160	100	-	160	-	-
65-160/22A	160	125	-	160	-	-
65-160/22	160	125	-	160	-	-
65-200/15	180	100	-	180	-	-
65-200/22A	180	125	-	180	-	-
65-200/22	180	125	-	180	-	-
65-200/30	180	125	-	180	-	-
65-200/40	180	125	-	180	-	-
65-250/30	200	125	-	200	-	-
65-250/40	200	125	-	200	-	-
65-250/55A	200	150	-	200	-	-
65-250/55	200	150	-	200	-	-
65-250/75	200	150	-	200	-	-
65-315/55	225	150	-	225	-	-
65-315/75	225	150	-	225	-	-
65-315/110	225	175	160	225	-	1 x 743760350▲
65-315/150	225	175	160	225	-	1 x 743760350▲
80-160/15	180	100	-	180	-	-
80-160/22A	180	125	-	180	-	-
80-160/22	180	125	-	180	-	-
80-160/30	180	125	-	180	-	-
80-200/30	180	125	-	180	-	-
80-200/40	180	125	-	180	-	-
80-200/55A	180	150	-	180	-	-
80-200/55	180	150	-	180	-	-
80-250/55A	200	150	-	200	-	-
80-250/55	200	150	-	200	-	-
80-250/75	200	150	-	200	-	-
80-250/110	200	175	160	200	-	4 x 161407670
80-315/110A	250	175	160	250	-	1 x 743760360▲
80-315/110	250	175	160	250	-	1 x 743760360▲
80-315/150	250	175	160	250	-	1 x 743760360▲
80-315/185	250	175	180	250	-	1 x 743760290▲
80-315/220	250	175	180	250	-	1 x 743760290▲
80-400/185	280	175	180	280	-	1 x 743760300▲
80-400/220	280	175	180	280	-	1 x 743760300▲
80-400/300	280	200	200	280	-	1 x 743760230▲
80-400/370	280	225	225	280	-	1 x 743760170▲

* On request. ▲ Support base kit.

nscs-32-80sp_4p50-en_b_id

SHIM FOR MOTOR FEET

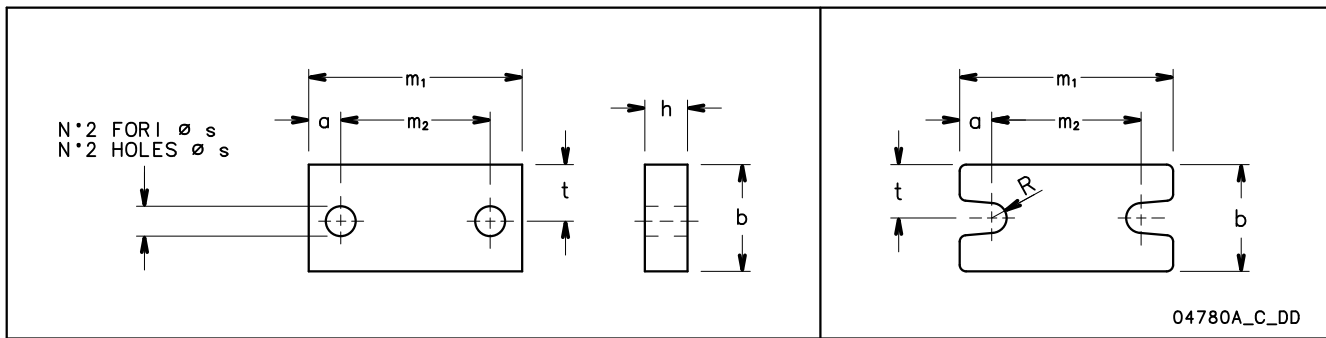


04780_C_DD

CODE	DENOMINATION					DIMENSIONS (mm)				HOLES	
	AA	x	h	x	BB	a	B1	B2	c	N°	ø K
161402570	35		20		125	17	100	-	12,5	2	10
161402320	40		10		155	20	100	125	15	3	10
161402340	40		12		155	20	100	125	15	3	10
161402360	40		12		180	17	140	-	20	2	14
161402380	40		20		180	17	140	-	20	2	14
161402400	40		30		155	20	100	125	15	3	10
161402420	40		40		180	17	140	-	20	2	14
161402440	50		8		226	21	140	178	24	3	14
161402460	50		20		226	21	140	178	24	3	14
161407670	50		20		304	25	210	254	25	3	14
161407690	50		30		304	25	210	254	25	3	14
768082180	80		5		332	35,5	241	279	26,5	3	14
768082190	80		10		332	35,5	241	279	26,5	3	14
161407590	80		20		332	35,5	241	279	26,5	3	14
768082110	80		25		370	33,5	305	-	32,5	2	19
768082120	80		25		412	40	286	311	50,5	3	19
161407990	100		30		467	50	311	349	59	3	22
768082130	100		35		517	50	368	419	49	3	24

SHIM FOR PUMP FEET

sp-mot-nscs-nscf-en_d_td

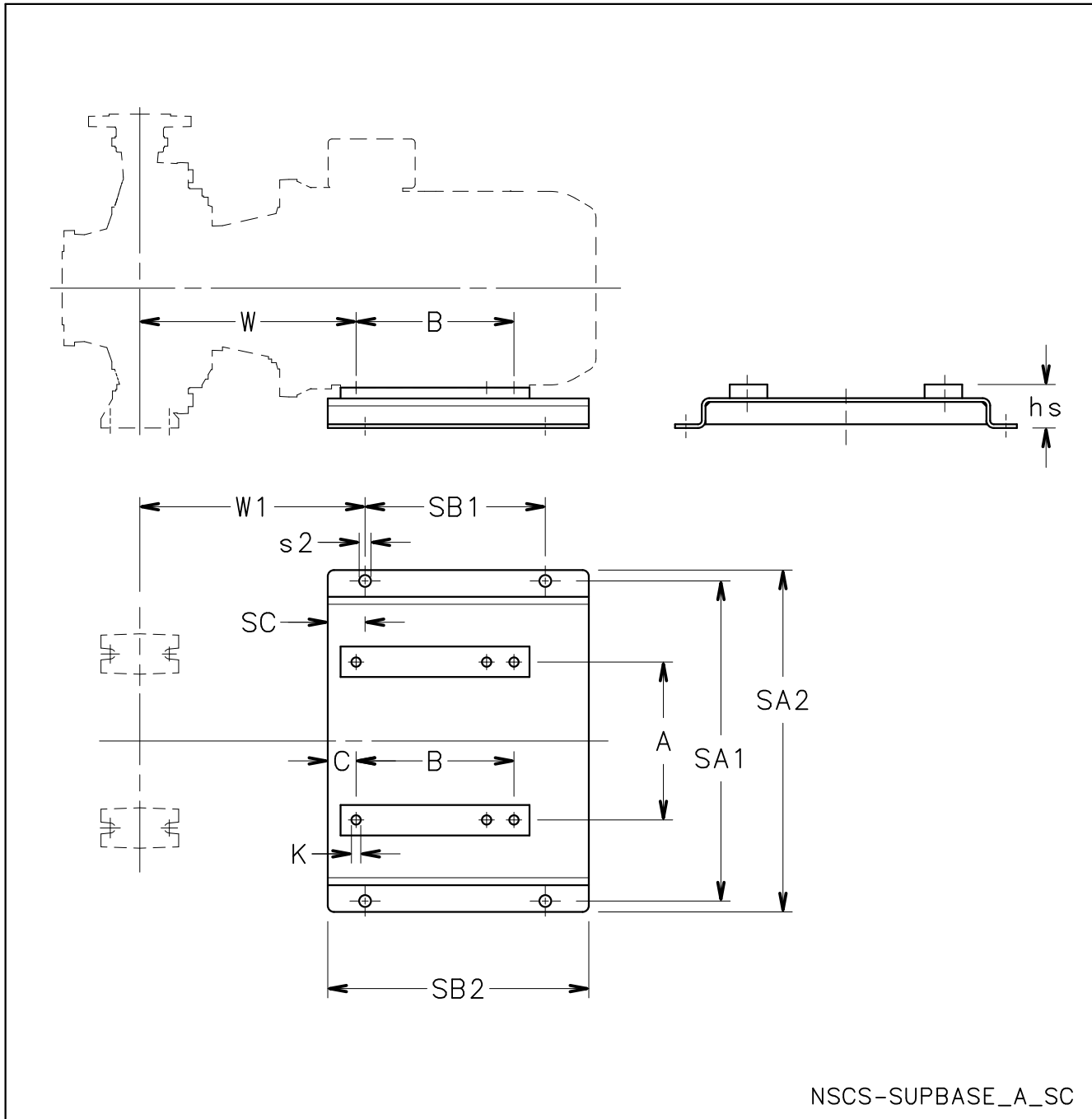


04780A_C_DD

CODE	DENOMINATION					DIMENSIONS (mm)				
	b	x	h	x	m ₁	a	m ₂	ø s	R	t
161407770	40		10		160	25	110	14	-	16,5
161403250	40		20		160	25	110	14	-	16,5
161404360	40		25		160	25	110	14	-	16,5
161407780	40		30		160	25	110	14	-	16,5
161407550	50		8		100	15	70	14	-	26,5
161403210	50		20		100	15	70	14	-	26,5
161403230	70		20		125	15	95	14	-	37,5
161407570	70		25		125	15	95	14	-	37,5
161407790	80		10		160	20	120	18	-	42,5
161404380	80		25		160	20	120	18	-	42,5
161407800	80		30		160	20	120	18	-	42,5
768003140	85		10		160	32,5	95 / 120	-	9	42,5
768003150	85		15		160	32,5	95 / 120	-	9	42,5
768003170	85		30		160	32,5	95 / 120	-	9	42,5
768003180	85		45		160	32,5	95 / 120	-	9	42,5
768003190	85		50		160	32,5	95 / 120	-	9	42,5

sp-pompa-nscf-en_d_td

NSCS SUPPORT BASE KIT



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, EMC 2014/30/EU, ErP 2009/125/EC).

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

iv) Manufacturer's declaration of conformity

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

v) Other certificates and/or documentation on request

- subject to availability or feasibility.

vi) Duplication of certificates and/or documentation on request

- subject to availability or feasibility.

TECHNICAL APPENDIX

NPSH

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

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

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

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

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

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

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

where:

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

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

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

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

0,5 is the safety factor.

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

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

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

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

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

Make the following calculation:

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

Flow rate required: 25 m³/h

Head for required delivery: 70 m.

Suction lift: 3,5 m.

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

For water at 15 °C

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

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

By substituting the parameters in formula $\textcircled{1}$ with the numeric values above, we have:

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

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

The relation is therefore verified.

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
1,000	0,0600	2,1189	0,0353	0,2200	0,2642
16,6667	1,0000	35,3147	0,5886	3,6662	4,4029
0,4719	0,0283	1,0000	0,0167	0,1038	0,1247
28,3168	1,6990	60,0000	1,0000	6,2288	7,4805
4,5461	0,2728	9,6326	0,1605	1,0000	1,2009
3,7854	0,2271	8,0208	0,1337	0,8327	1,0000

PRESSURE AND HEAD

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

LENGTH

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

VOLUME

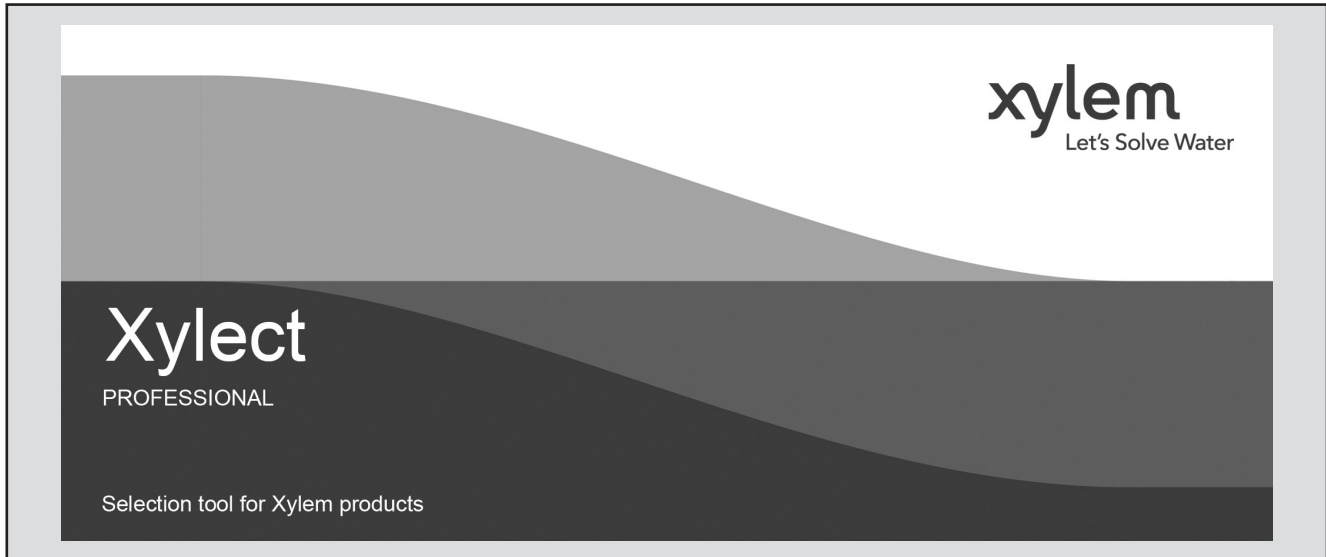
Cubic metre m ³	Litre L	Millilitre ml	Imperial gallon imp. gal.	U.S. gallon US gal.	Cubic foot ft ³
1,0000	1 000,0000	1×10^6	219,9694	264,1720	35,3147
0,0010	1,0000	1 000,0000	0,2200	0,2642	0,0353
1×10^{-6}	0,0010	1,0000	$2,2 \times 10^{-4}$	$2,642 \times 10^{-4}$	$3,53 \times 10^{-5}$
0,0045	4,5461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

TEMPERATURE

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

G-at_pp-en_b_sc

**FURTHER PRODUCT SELECTION
AND DOCUMENTATION**
Xylect



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

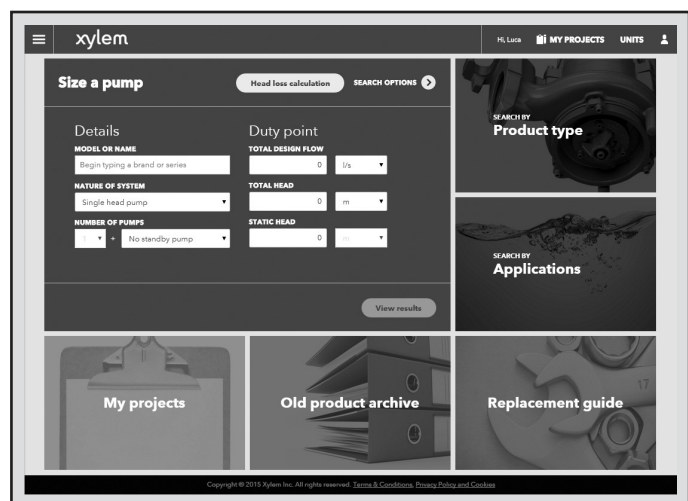
The possibility to search by applications and the detailed information output given makes it easy to make the optimal selection without having detailed knowledge about the Lowara products.

The search can be made by:

- Application
- Product type
- Duty point

Xylect gives a detailed output:

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



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

FURTHER PRODUCT SELECTION AND DOCUMENTATION

Xylect



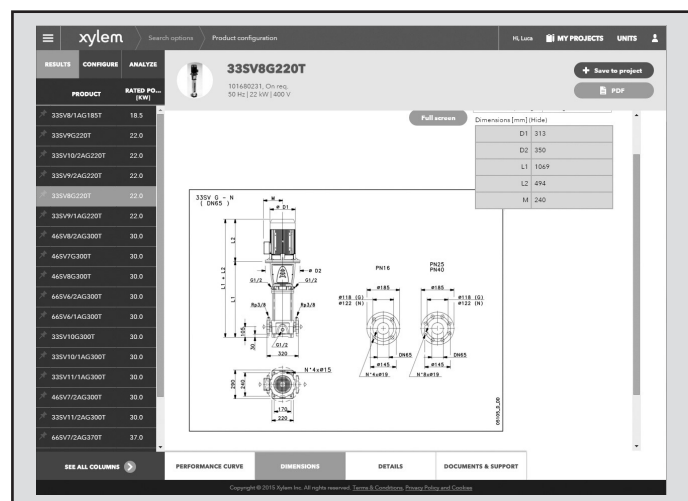
The detailed output makes it easy to select the optimal pump from the given alternatives.

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

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

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

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



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

Xylem |'zīləm|

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

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

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



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