

50 Hz



e-NSC Series

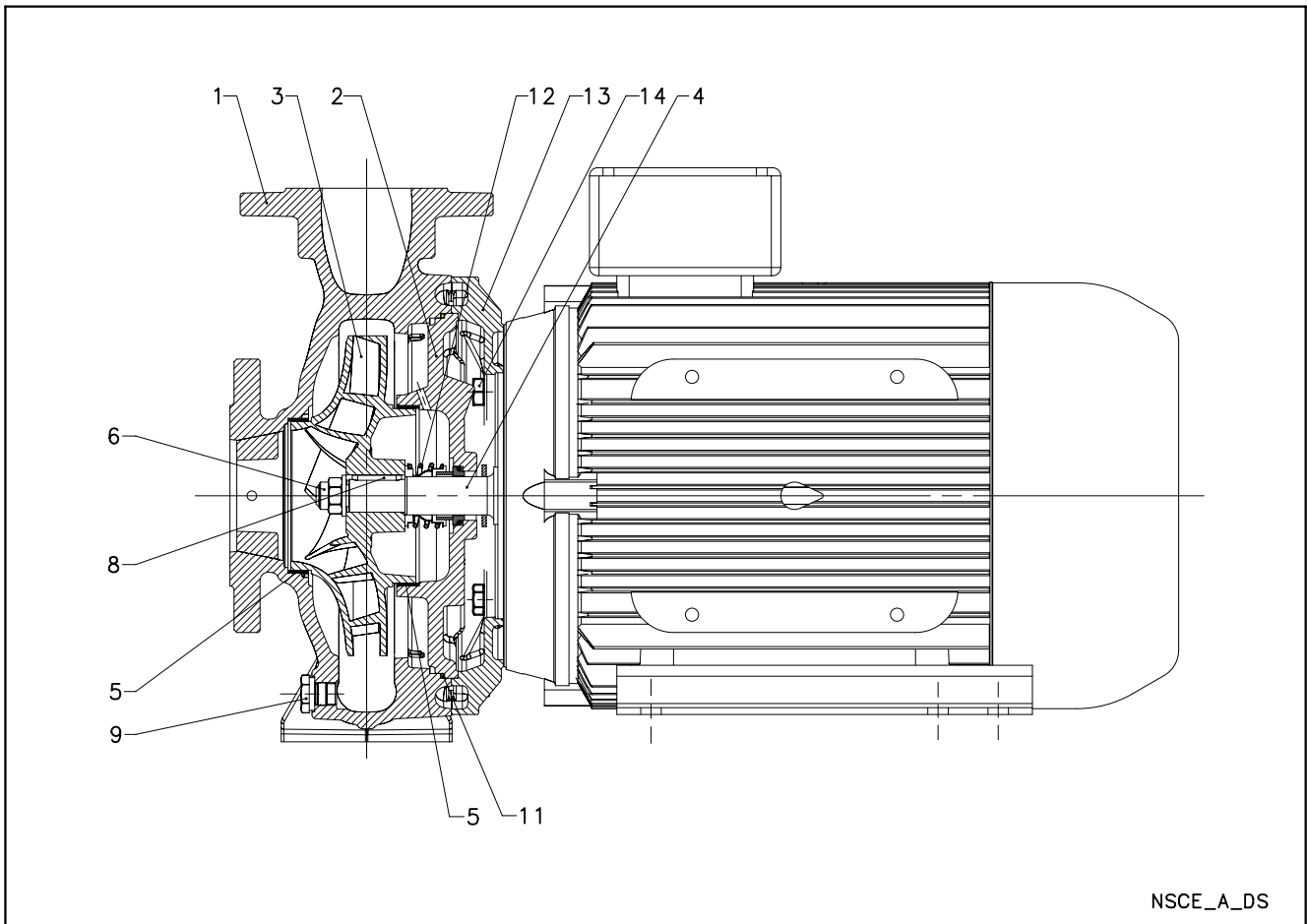
HORIZONTAL CENTRIFUGAL ELECTRIC PUMPS
EQUIPPED WITH **IE3** MOTORS

ErP 2009/125/EC

Cod. 191002951 Rev. F Ed.03/2016

 **LOWARA**
a xylem brand

NSCE SERIES ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS

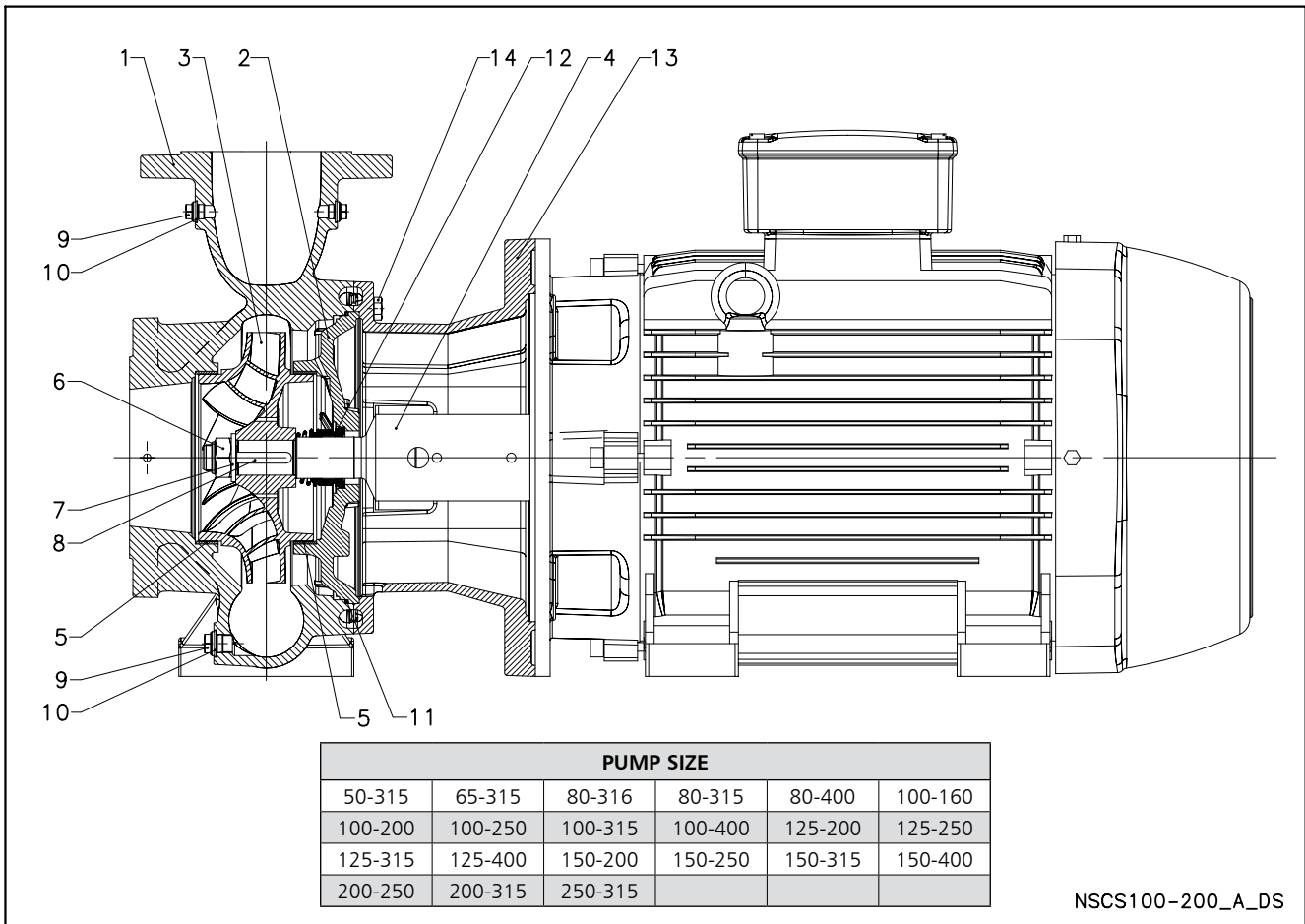


| REF. N. | PART | MATERIAL | REFERENCE STANDARDS | |
|---------|--|--|-------------------------------------|---------------|
| | | | EUROPE | USA |
| 1 | Volute casing | Cast iron | EN 1561 - GJL-250 (JL1040) | ASTM Class 35 |
| 2 | Casing cover | Cast iron | EN 1561 - GJL-250 (JL1040) | ASTM Class 35 |
| 3 | Impeller (32, 40, 50) | Stainless steel | EN 10088-1-X2CrNiMo17-12-2 (1.4404) | AISI 316L |
| | Impeller (65, 80) | Cast iron | EN 1561 - GJL-200 (JL1030) | ASTM Class 30 |
| | Impeller (65, 80) | Bronze | EN 1982 - CuSn10-C (CC480K) | UNS C90700 |
| 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 10088-1-X5CrNiMo17-12-2 (1.4401) | AISI 316 |
| 8 | Impeller key | Stainless steel | EN 10088-1-X2CrNiMo17-12-2 (1.4404) | AISI 316L |
| 9 | Fill and drain plugs | Nickel-plated brass | EN 12164-CuZn39Pb3 (CW614N) | - |
| 11 | O-Ring | EPDM (standard version) | | |
| 12 | Mechanical seal | Carbon / Silicon carbide / EPDM (standard version) | | |
| 13 | Motor adapter * | Aluminium | EN 1706-AC-AISI11Cu2 (Fe) (AC46100) | - |
| | Motor adapter | Cast iron | EN 1561 - GJL-250 (JL1040) | ASTM Class 35 |
| 14 | Volute casing fastening bolts and screws | Galvanized steel | | |

* 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) | ASTM Class 35 |
| | 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 |
| | 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 |
| | Impeller | Bronze | EN 1982 - CuSn10-C (CC480K) | UNS C90700 |
| 4 | Stub shaft | Stainless steel | EN 10088 - X17CrNi16-2 (1.4057) | AISI 431 |
| 5 | Wear ring | Stainless steel | EN 10088 - X5CrNi18-10 (1.4301) | AISI 304 |
| 6 | Impeller nut | Stainless steel | A4 (~ 1.4401) | |
| 7 | Impeller washer | Stainless steel | A4 (~ 1.4401) | |
| 8 | Impeller key | Stainless steel | EN 10088 - X6CrNiMo17-12-2 (1.4571) | AISI 316Ti |
| 9 | Plug | Stainless steel | EN 10088 - X6CrNiMo17-12-2 (1.4571) | AISI 316Ti |
| 10 | Gasket | Asbestos-free synthetic fiber AFM 34 | | |
| 11 | O-Ring | EPDM (standard version) | | |
| 12 | Mechanical seal | Carbon / Silicon carbide / EPDM (standard version) | | |
| 13 | Motor adapter | Cast iron | EN 1561 - GJL-250 (JL1040) | ASTM Class 35 |
| 14 | Volute - casing fastening screws | Carbon steel | | |

Nscs100-200-en_a_tm

e-NSC SERIES PUMPS

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

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

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

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

According to the definitions established in the Regulation NSCE and NSCS versions correspond to the end-suction close-coupled pump while NSC, NSCF and NSCC versions correspond to the end-suction own bearing pump. This regulation states that water pumps shall have a minimum index MEI coming from a dedicated formula which considers hydraulic efficiency values at best efficiency point (BEP), 75 % of the flow at BEP (Part load PL) and 110 % of the flow at BEP (Over load OL).

The Regulation also establishes the following deadlines.

| from | minimum efficiency index (MEI) |
|------------------------------|--------------------------------|
| 1 st January 2013 | MEI ≥ 0,1 |
| 1 st January 2015 | MEI ≥ 0,4 |

NSC2 models 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: 2014.
- 4) Manufacturer: Xylem Service Italia Srl - Reg. No 07520560967 - Montecchio Maggiore, Vicenza, Italy.
- 5) Product type: see the PUMP TYPE column in the tables in the *Hydraulic performance* section.
- 6) Hydraulic pump efficiency with trimmed impeller: see η_p and $\varnothing T$ columns in the tables in the *Hydraulic performance* section.
- 7) Pump performance curves, including the performance curve: see the *Operating Characteristics* graphs in the following pages.
- 8) The efficiency of a pump with a trimmed impeller is usually lower than that of a pump with the full impeller diameter. The trimming of the impeller will adapt the pump to a fixed duty point, leading to reduced energy consumption. The minimum efficiency index (MEI) is based on the full impeller diameter .
- 9) The operation of this water pump with variable duty points may be more efficient and economic when controlled, for example, by the use of a variable speed drive that matches the pump duty to the system .
- 10) Information relevant for disassembly, recycling or disposal at end-of-life: observe the current laws and by-laws governing sorted waste disposal. Consult the product operating manual.
- 11) Designed for use below 10 °C only : note not applicable to these products.
- 12) Designed for use above 120 °C only : note not applicable to these products.
- 13) Specific instructions for pumps as per points 11 and 12: not applicable to these products.
- 14) Information on benchmark efficiency is available at : www.europump.org (Ecodesign section).
- 15) The benchmark efficiency graphs with MEI = 0.7 and MEI = 0.4 are available at www.europump.org, Ecodesign, Efficiency charts (refer to ESCC 1450 rpm , ESCC 2900 rpm , ESOB 1450 rpm , ESOB 2900 rpm).

e-NSC 100-125-150 SERIES HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES

| PUMP TYPE | P _N kW | Ø Impeller (mm) | | | | Q = DELIVERY | | | | | | | | | | | | | |
|-------------|----------------------|-----------------|----------|----------|---------------------------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| | | STD (1) | B (2) | ● (3) | ηp % (3) | l/s 0 | 5,6 | 12,6 | 19,7 | 26,8 | 33,8 | 40,9 | 48,0 | 55,1 | 62,1 | 69,2 | 76,3 | 83,3 | |
| | | | | | H = TOTAL HEAD METRES COLUMN OF WATER | | | | | | | | | | | | | | |
| | | | | | m ³ /h 0 | 20 | 45 | 71 | 96 | 122 | 147 | 173 | 198 | 224 | 249 | 275 | 300 | | |
| 100-160/22A | 2,2 | 144 | 144 | ○ | 75,9 | 5,9 | | 5,9 | 5,6 | 4,9 | 3,7 | | | | | | | | |
| 100-160/22 | 2,2 | 156 | 156 | ○ | 77,4 | 6,9 | | 6,9 | 6,6 | 6,0 | 4,8 | 3,5 | | | | | | | |
| 100-160/30 | 3 | 176 | 176 | ○ | 81,5 | 9,1 | | 9,0 | 8,8 | 8,1 | 7,0 | 5,6 | 4,0 | | | | | | |
| 100-160/40 | 4 | 190 | 190 | ● | 83,6 | 10,8 | | 10,6 | 10,4 | 9,8 | 8,9 | 7,6 | 6,0 | | | | | | |
| 100-200/40 | 4,0 | 197 | 197 | ○ | 82,6 | 12,2 | | 12,1 | 11,8 | 11,0 | 9,6 | 7,5 | 5,1 | | | | | | |
| 100-200/55 | 5,5 | 213 | 213 | ○ | 83,8 | 14,8 | | 14,6 | 14,5 | 13,8 | 12,6 | 10,7 | 8,4 | | | | | | |
| 100-200/75 | 7,5 | 227 | 227 | ● | 84,3 | 16,9 | | 16,7 | 16,5 | 15,9 | 14,8 | 13,1 | 11,0 | 8,4 | | | | | |
| 100-250/55 | 5,5 | 213 | 213 | ○ | 80,6 | 14,1 | | 14,1 | 13,8 | 13,1 | 11,9 | 10,1 | 8,0 | | | | | | |
| 100-250/75 | 7,5 | 237 | 237 | ○ | 83,1 | 17,8 | | 17,9 | 17,7 | 17,2 | 16,2 | 14,6 | 12,5 | 10,1 | | | | | |
| 100-250/110 | 11 | 259 | 259 | ● | 84,1 | 21,9 | | 21,9 | 21,7 | 21,1 | 20,0 | 18,4 | 16,3 | 13,8 | | | | | |
| 100-315/110 | 11 | 260 | 260 | ○ | 78,9 | 23,5 | 23,5 | 23,4 | 23,1 | 22,4 | 21,1 | 19,2 | 16,5 | 12,6 | | | | | |
| 100-315/150 | 15 | 284 | 284 | ○ | 79,5 | 28,0 | | 28,0 | 27,8 | 27,2 | 26,0 | 24,4 | 22,4 | 19,5 | | | | | |
| 100-315/185 | 18,5 | 298 | 298 | ○ | 79,9 | 31,1 | | 31,0 | 30,9 | 30,3 | 29,3 | 27,8 | 26,1 | 23,8 | 20,4 | | | | |
| 100-315/220 | 22 | 312 | 312 | ○ | 80,6 | 34,3 | | 34,2 | 34,1 | 33,7 | 32,8 | 31,4 | 29,6 | 27,6 | 25,0 | | | | |
| 100-315/300 | 30 | 334 | 334 | ● | 80,8 | 40,2 | | 40,1 | 40,1 | 39,7 | 38,8 | 37,6 | 36,0 | 34,0 | 31,5 | 28,2 | | | |
| 100-400/300 | 30 | 375 | 375 | ○ | 76,8 | 47,4 | | 46,5 | 45,8 | 44,9 | 43,7 | 42,1 | 40,0 | 37,4 | 34,3 | 30,6 | | | |
| 100-400/370 | 37 | 397 | 397 | ○ | 77,1 | 54,4 | | 53,3 | 52,5 | 51,6 | 50,4 | 48,9 | 47,1 | 44,8 | 42,0 | 38,6 | 34,7 | | |
| 100-400/450 | 45 | 420 | 420 | ● | 76,9 | 61,3 | | 60,0 | 59,4 | 58,6 | 57,3 | 55,7 | 53,8 | 51,6 | 49,0 | 45,8 | 42,0 | 37,3 | |

| PUMP TYPE | P _N kW | Ø Impeller (mm) | | | | Q = DELIVERY | | | | | | | | | | | | | |
|-------------|----------------------|-----------------|----------|----------|---------------------------------------|--------------|------|------|------|------|------|------|------|------|------|------|-------|-------|--|
| | | STD (1) | B (2) | ○ (3) | ηp % (3) | l/s 0 | 11,9 | 21,4 | 30,9 | 40,5 | 50,0 | 59,5 | 69,0 | 78,6 | 88,1 | 97,6 | 107,1 | 116,7 | |
| | | | | | H = TOTAL HEAD METRES COLUMN OF WATER | | | | | | | | | | | | | | |
| | | | | | m ³ /h 0 | 43 | 77 | 111 | 146 | 180 | 214 | 249 | 283 | 317 | 351 | 386 | 420 | | |
| 125-200/55 | 5,5 | 179 | 179 | ○ | 80,9 | 8,6 | | 8,4 | 8,4 | 8,3 | 8,0 | 7,2 | 6,0 | | | | | | |
| 125-200/75 | 7,5 | 204 | 204 | ○ | 83,5 | 11,9 | | 11,8 | 11,8 | 11,6 | 11,2 | 10,3 | 9,0 | 7,5 | | | | | |
| 125-200/110 | 11 | 225 | 225 | ● | 85,4 | 15,0 | | 14,9 | 14,9 | 14,8 | 14,4 | 13,7 | 12,6 | 11,1 | 9,3 | | | | |
| 125-250/75 | 7,5 | 210 | 210 | ○ | 84,5 | 13,6 | 13,5 | 13,4 | 13,3 | 12,9 | 12,1 | 10,6 | 8,6 | 6,3 | | | | | |
| 125-250/110 | 11 | 235 | 235 | ○ | 86,3 | 17,5 | | 17,4 | 17,4 | 17,2 | 16,6 | 15,3 | 13,5 | 11,3 | 9,2 | | | | |
| 125-250/150 | 15 | 259 | 259 | ● | 88,3 | 22,0 | | 21,7 | 21,7 | 21,5 | 21,0 | 20,0 | 18,5 | 16,5 | 14,1 | 11,6 | | | |
| 125-315/185 | 18,5 | 277 | 277 | ○ | 83,7 | 25,6 | | 25,7 | 25,6 | 25,3 | 24,4 | 22,8 | 20,1 | 16,4 | 11,9 | 7,3 | | | |
| 125-315/220 | 22 | 290 | 290 | ○ | 84,3 | 28,3 | | 28,6 | 28,5 | 28,2 | 27,5 | 26,1 | 23,8 | 20,7 | 16,6 | | | | |
| 125-315/300 | 30 | 315 | 315 | ○ | 85,4 | 34,8 | | 35,1 | 35,0 | 34,8 | 34,1 | 33,0 | 31,4 | 29,1 | 26,0 | 22,1 | | | |
| 125-315/370 | 37 | 334 | 334 | ● | 86,4 | 39,6 | | 39,8 | 39,9 | 39,7 | 39,2 | 38,2 | 36,8 | 34,8 | 32,1 | 28,7 | 24,6 | | |
| 125-400/370 | 37 | 353 | 353 | ○ | 78,0 | 43,4 | | 43,9 | 43,8 | 43,2 | 41,9 | 39,9 | 37,0 | 33,0 | 28,0 | | | | |
| 125-400/450 | 45 | 374 | 374 | ○ | 78,8 | 48,7 | | 49,4 | 49,6 | 49,3 | 48,3 | 46,4 | 43,7 | 40,0 | 35,4 | 30,0 | | | |
| 125-400/550 | 55 | 394 | 394 | ○ | 79,1 | 54,4 | | 55,6 | 55,8 | 55,5 | 54,6 | 53,0 | 50,7 | 47,6 | 43,6 | 38,7 | | | |
| 125-400/750 | 75 | 422 | 422 | ● | 79,9 | 63,4 | | 64,8 | 64,7 | 64,2 | 63,3 | 61,8 | 59,8 | 57,1 | 53,8 | 49,8 | 45,0 | 39,3 | |

| PUMP TYPE | P _N kW | Ø Impeller (mm) | | | | Q = DELIVERY | | | | | | | | | | | | | |
|--------------|----------------------|-----------------|----------|----------|---------------------------------------|--------------|------|------|------|------|------|-------|-------|------|-------|-------|-------|-------|--|
| | | STD (1) | B (2) | ○ (3) | ηp % (3) | l/s 0 | 16,7 | 33,8 | 51,0 | 68,2 | 85,4 | 102,5 | 119,7 | ### | 154,0 | 171,2 | 188,4 | 205,6 | |
| | | | | | H = TOTAL HEAD METRES COLUMN OF WATER | | | | | | | | | | | | | | |
| | | | | | m ³ /h 0 | 60 | 122 | 184 | 245 | 307 | 369 | 431 | 493 | 555 | 616 | 678 | 740 | | |
| 150-200/110A | 11 | 200 | 200 | ○ | 78,8 | 11,8 | | 11,3 | 10,5 | 9,4 | 8,3 | 7,0 | 5,4 | | | | | | |
| 150-200/110 | 11 | 217 | 217 | ○ | 80,7 | 14,0 | | 13,4 | 12,5 | 11,4 | 10,1 | 8,7 | 7,0 | 4,9 | | | | | |
| 150-200/150A | 15 | 227 | 227 | ○ | 82,0 | 15,2 | | 14,5 | 13,8 | 12,9 | 11,7 | 10,2 | 8,4 | 6,4 | | | | | |
| 150-200/150 | 15 | 237 | 237 | ● | 83,9 | 16,3 | | 15,6 | 15,1 | 14,4 | 13,4 | 12,0 | 10,3 | 8,2 | | | | | |
| 150-250/150 | 15 | 238 | 238 | ○ | 80,3 | 17,2 | 17,0 | 16,7 | 16,1 | 15,1 | 13,7 | 11,6 | 9,1 | | | | | | |
| 150-250/185 | 18,5 | 253 | 253 | ○ | 82,7 | 19,8 | | 19,1 | 18,7 | 17,9 | 16,6 | 14,8 | 12,4 | 9,5 | | | | | |
| 150-250/220 | 22 | 265 | 265 | ○ | 84,6 | 22,1 | | 21,4 | 21,0 | 20,4 | 19,3 | 17,6 | 15,4 | 12,6 | | | | | |
| 150-250/300 | 30 | 282 | 282 | ● | 86,2 | 26,4 | | 25,3 | 24,7 | 23,9 | 22,9 | 21,5 | 19,6 | 17,3 | 14,4 | | | | |
| 150-315/300 | 30 | 291 | 291 | ○ | 84,2 | 27,7 | | 27,7 | 27,6 | 27,0 | 25,7 | 23,5 | 20,4 | 16,5 | | | | | |
| 150-315/370 | 37 | 310 | 310 | ○ | 85,1 | 31,9 | | 31,8 | 31,6 | 31,1 | 30,0 | 28,1 | 25,3 | 21,5 | 17,1 | | | | |
| 150-315/450 | 45 | 330 | 330 | ● | 86,3 | 36,6 | | 36,2 | 36,1 | 35,7 | 34,7 | 32,9 | 30,4 | 27,2 | 23,2 | | | | |
| 150-400/450 | 45 | 327 | 327 | ○ | 81,8 | 36,7 | | 36,9 | 36,6 | 35,6 | 34,0 | 31,7 | 28,6 | 24,6 | | | | | |
| 150-400/550 | 55 | 346 | 346 | ○ | 84,4 | 41,2 | | 41,6 | 41,5 | 40,9 | 39,5 | 37,5 | 34,6 | 30,9 | 26,3 | | | | |
| 150-400/750 | 75 | 377 | 377 | ○ | 84,9 | 50,3 | | 50,8 | 50,9 | 50,4 | 49,1 | 47,0 | 44,4 | 41,3 | 37,7 | 33,3 | | | |
| 150-400/900 | 90 | 398 | 398 | ○ | 85,3 | 56,5 | | 56,9 | 57,0 | 56,5 | 55,5 | 53,7 | 51,4 | 48,5 | 45,1 | 41,0 | | | |
| 150-400/1100 | 110 | 423 | 423 | ● | 85,5 | 63,9 | | 64,4 | 64,3 | 63,9 | 63,0 | 61,5 | 59,4 | 56,6 | 53,2 | 49,1 | 44,4 | | |
| 150-500/900 | 90 | 420 | 420 | ○ | 75,1 | 60,9 | | 61,6 | 61,8 | 61,1 | 59,0 | 55,2 | 49,6 | 42,6 | 34,5 | | | | |
| 150-500/1100 | 110 | 443 | 443 | ○ | 75,4 | 68,5 | | 68,9 | 69,3 | 69,0 | 67,5 | 64,4 | 59,5 | 52,7 | 44,6 | 36,1 | | | |
| 150-500/1320 | 132 | 467 | 467 | ○ | 76,5 | 76,9 | | 77,6 | 78,1 | 78,0 | 76,9 | 74,3 | 70,1 | 64,0 | 56,3 | 47,3 | | | |
| 150-500/1600 | 160 | 495 | 495 | ○ | 77,9 | 87,0 | | 87,9 | 88,4 | 88,5 | 87,8 | 86,0 | 82,7 | 77,6 | 70,7 | 62,1 | 52,6 | | |
| 150-500/2000 | 200 | 516 | 516 | ● | 78,6 | 95,1 | | 95,9 | 96,5 | 96,7 | 96,1 | 94,4 | 91,4 | 86,7 | 80,4 | 72,6 | 63,5 | 53,7 | |

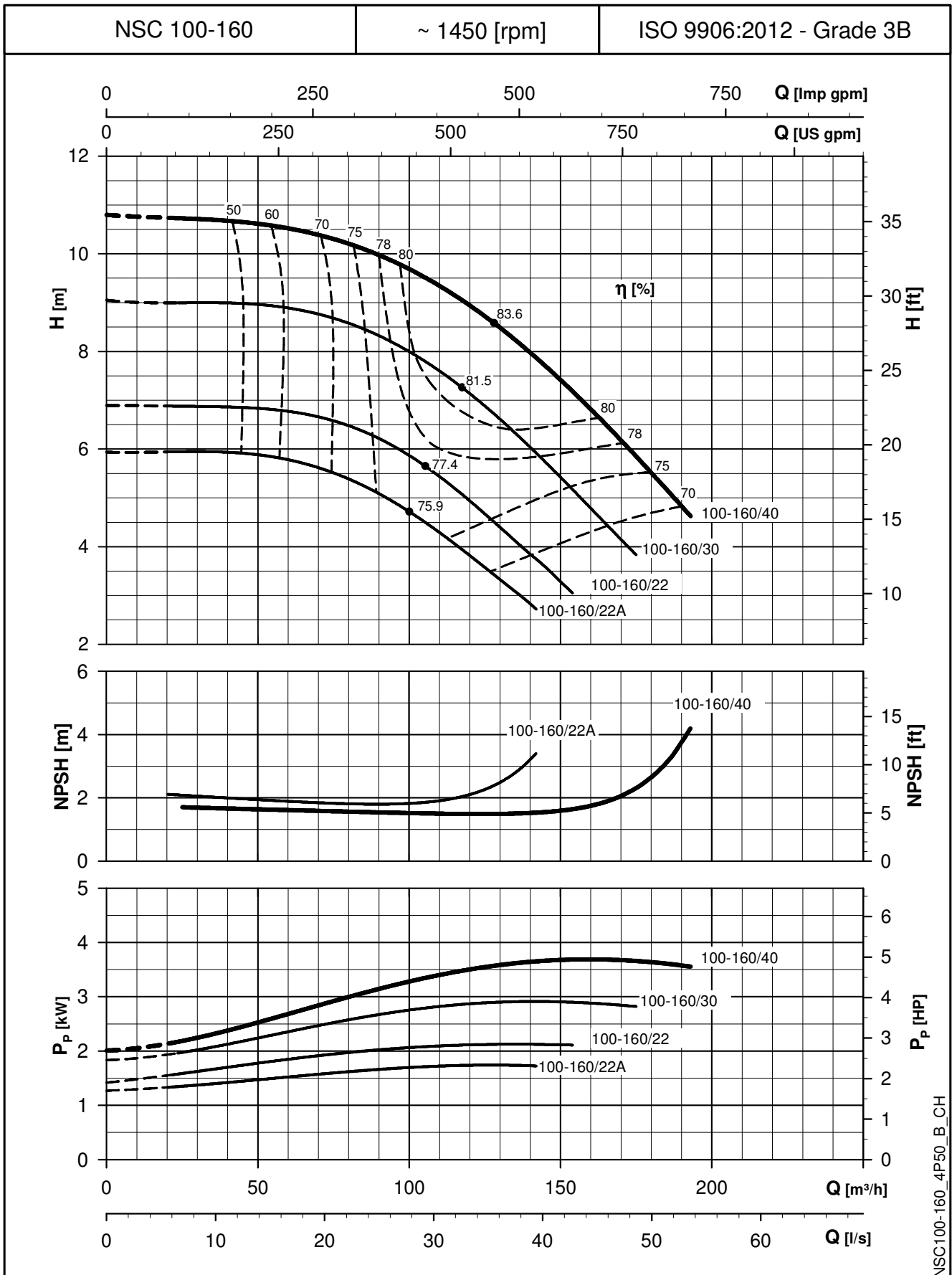
Hydraulic performances in compliance with ISO 9906:2012 - Grade 3B (ex ISO 9906:1999 - Annex A)

Nsc-100-150_4p50-en_c_th

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

e-NSC SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES

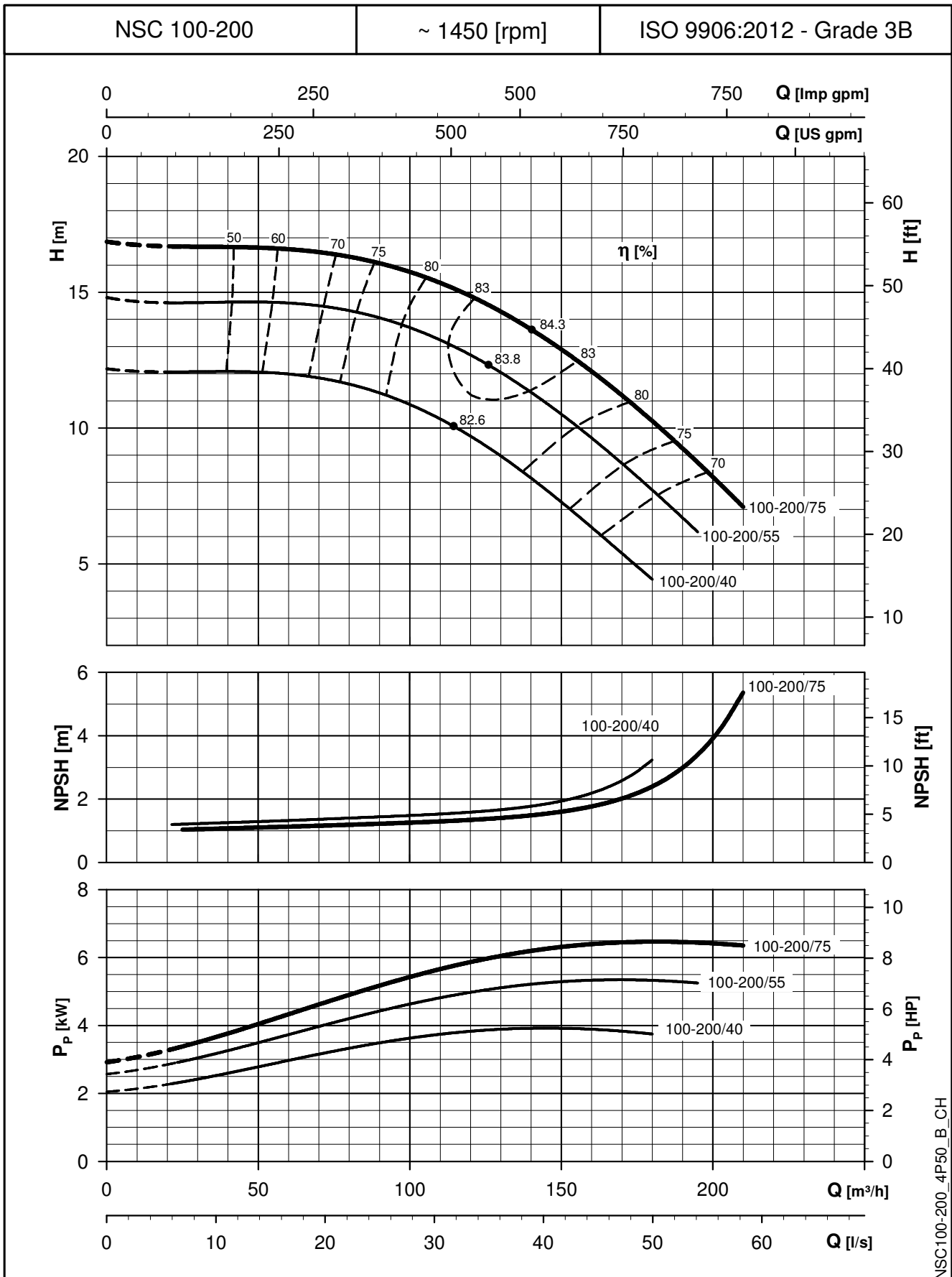


NSC100-160_4P50_B_CH

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

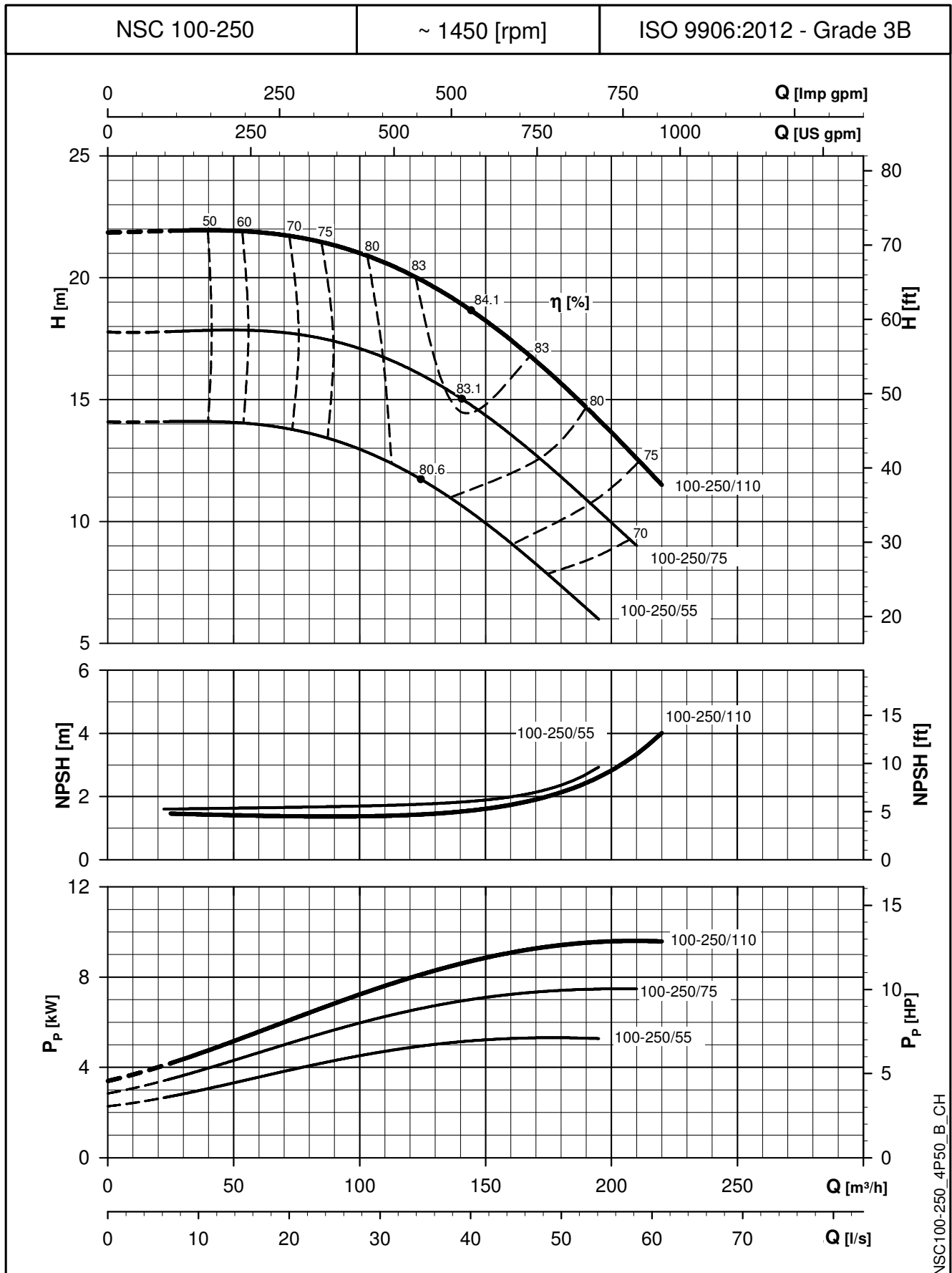


NSC100-200_4P50_B_CH

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

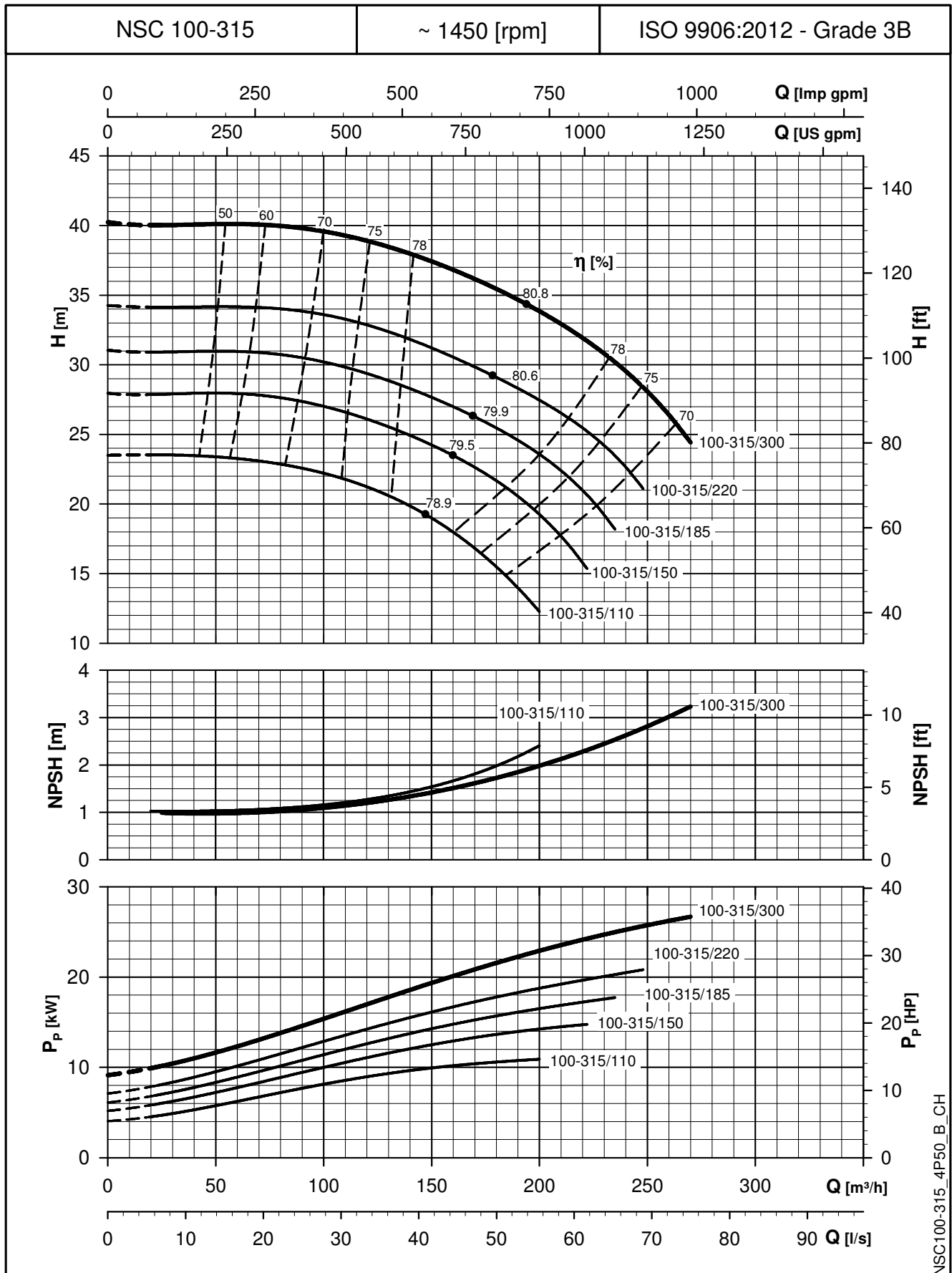


NSC100-250_4P50_B_CH

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

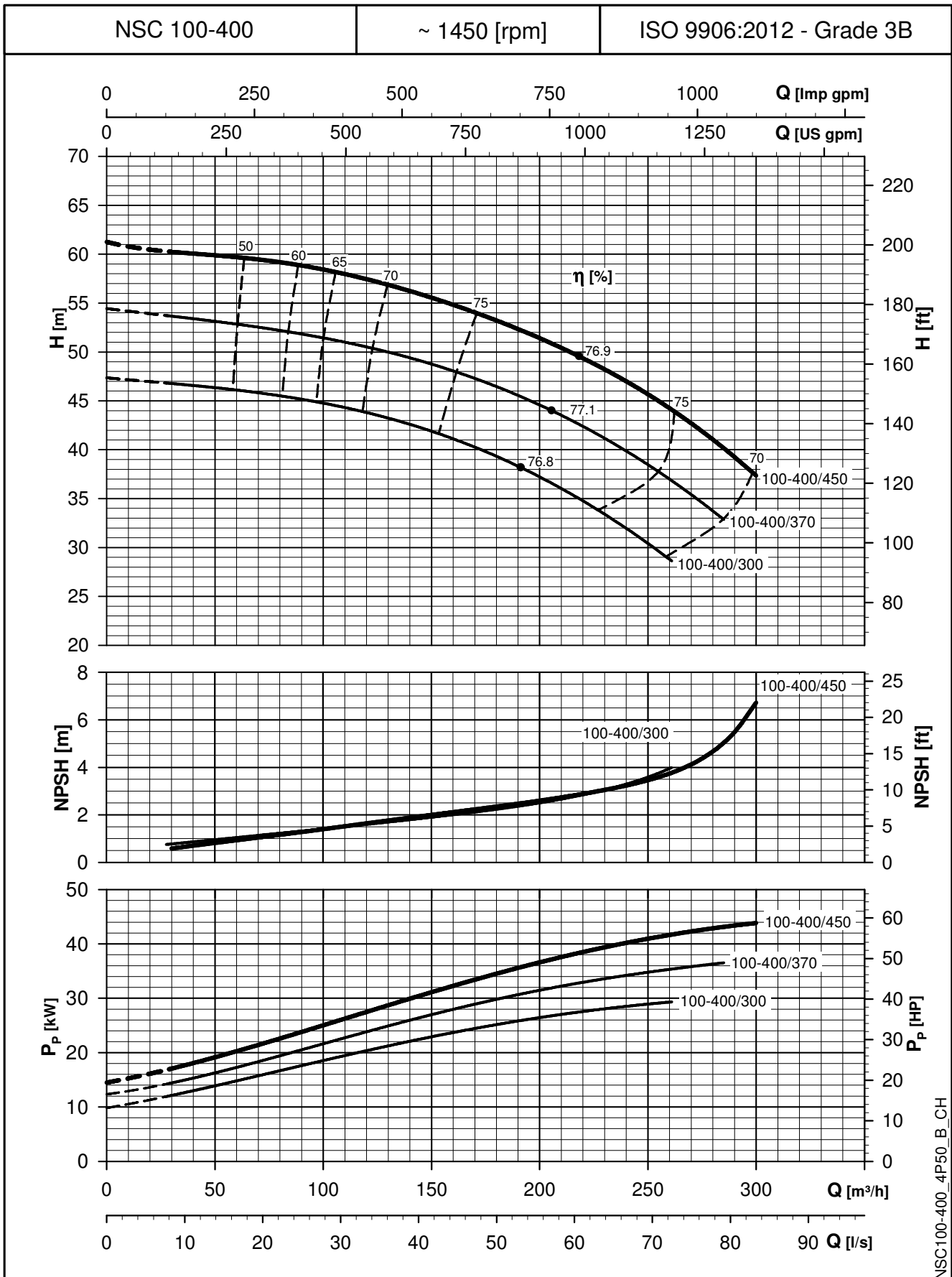
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



The NPSH 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

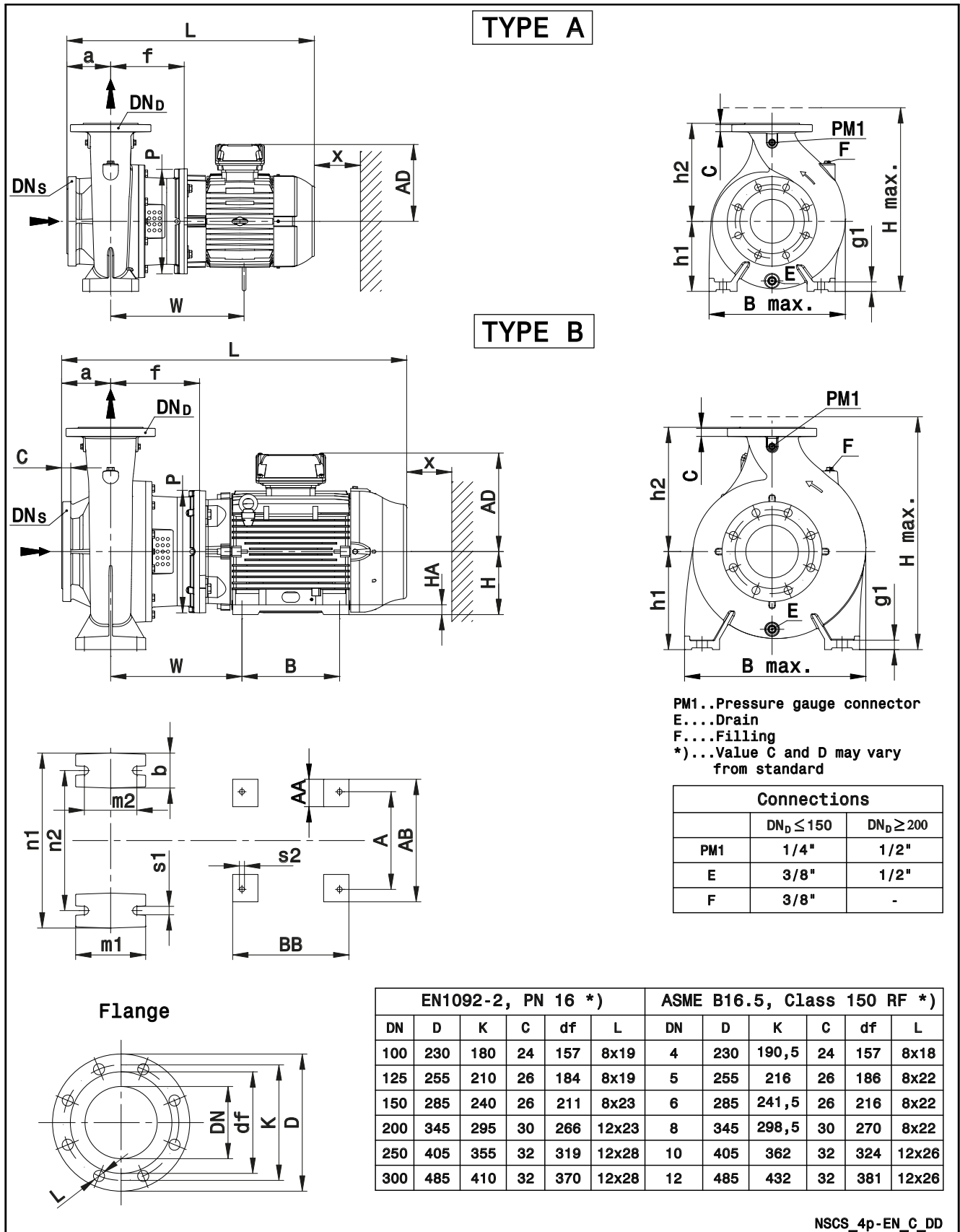
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



NSC100-400_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 $\nu = 1 \text{ mm}^2/\text{sec}$.

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



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

| PUMP TYPE NSCS..4 | TYPE | DIMENSIONS (mm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | WEIGHT (kg) G |
|----------------------|------|-----------------|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-------|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-------|-------|------|---------------------|
| | | PUMP | | | | | | | | | | | | | | MOTOR | | | | | | | | | | | | | | |
| | | DNS | DND | a | b | f | g1 | h1 | h2 | n1 | n2 | m1 | m2 | P | s1 | W | x | A | AA | AB | AD | B | BB | H | HA | s2 | B max | H max | L | |
| 100-160/22A/P | A | 125 | 100 | 125 | 80 | 183 | 26 | 200 | 280 | 360 | 280 | 160 | 120 | 250 | 19 | - | 140 | - | - | - | 168 | - | - | - | - | - | 388 | 480 | 630 | 104 |
| 100-160/22/P | A | 125 | 100 | 125 | 80 | 183 | 26 | 200 | 280 | 360 | 280 | 160 | 120 | 250 | 19 | - | 140 | - | - | - | 168 | - | - | - | - | - | 388 | 480 | 630 | 104 |
| 100-160/30/P | A | 125 | 100 | 125 | 80 | 183 | 26 | 200 | 280 | 360 | 280 | 160 | 120 | 250 | 19 | - | 140 | - | - | - | 168 | - | - | - | - | - | 388 | 480 | 661 | 110 |
| 100-160/40/P | A | 125 | 100 | 125 | 80 | 183 | 26 | 200 | 280 | 360 | 280 | 160 | 120 | 250 | 19 | - | 140 | - | - | - | 168 | - | - | - | - | - | 388 | 480 | 690 | 132 |
| 100-200/40/P | A | 125 | 100 | 125 | 80 | 183 | 26 | 200 | 280 | 360 | 280 | 160 | 120 | 250 | 19 | - | 140 | - | - | - | 168 | - | - | - | - | - | 390 | 480 | 690 | 130 |
| 100-200/55/P | A | 125 | 100 | 125 | 80 | 210 | 26 | 200 | 280 | 360 | 280 | 160 | 120 | 300 | 19 | - | 140 | - | - | - | 191 | - | - | - | - | - | 390 | 480 | 740 | 139 |
| 100-200/75/P | A | 125 | 100 | 125 | 80 | 210 | 26 | 200 | 280 | 360 | 280 | 160 | 120 | 300 | 19 | - | 140 | - | - | - | 191 | - | - | - | - | - | 390 | 480 | 740 | 144 |
| 100-250/75/P | A | 125 | 100 | 140 | 80 | 210 | 26 | 225 | 280 | 400 | 315 | 160 | 120 | 300 | 19 | - | 140 | - | - | - | 191 | - | - | - | - | - | 431 | 505 | 755 | 155 |
| 100-250/110/P | B | 125 | 100 | 140 | 80 | 240 | 26 | 225 | 280 | 400 | 315 | 160 | 120 | 350 | 19 | 348 | 140 | 254 | 49 | 304 | 240 | 210 | 304 | 160 | 5 | 15 | 431 | 505 | 874 | 177 |
| 100-315/110/P | B | 125 | 100 | 140 | 80 | 240 | 26 | 250 | 315 | 400 | 315 | 160 | 120 | 350 | 19 | 348 | 140 | 254 | 49 | 304 | 240 | 210 | 304 | 160 | 5 | 15 | 481 | 565 | 874 | 198 |
| 100-315/150/P | B | 125 | 100 | 140 | 80 | 240 | 26 | 250 | 315 | 400 | 315 | 160 | 120 | 350 | 19 | 348 | 140 | 254 | 49 | 304 | 240 | 210 | 304 | 160 | 5 | 15 | 481 | 565 | 874 | 240 |
| 100-315/185/W | B | 125 | 100 | 140 | 80 | 240 | 26 | 250 | 315 | 400 | 315 | 160 | 120 | 350 | 19 | 361 | 140 | 279 | 78 | 350 | 279 | 241 | 294 | 180 | 28 | 15 | 481 | 565 | 934 | 291 |
| 100-315/220/W | B | 125 | 100 | 140 | 80 | 240 | 26 | 250 | 315 | 400 | 315 | 160 | 120 | 350 | 19 | 361 | 140 | 279 | 78 | 350 | 279 | 279 | 332 | 180 | 28 | 15 | 481 | 565 | 972 | 309 |
| 100-315/300/W | B | 125 | 100 | 140 | 80 | 246 | 26 | 250 | 315 | 400 | 315 | 160 | 120 | 400 | 19 | 379 | 140 | 318 | 82 | 385 | 317 | 305 | 370 | 200 | 30 | 19 | 481 | 565 | 1042 | 358 |
| 100-400/300/W | B | 125 | 100 | 140 | 100 | 254 | 26 | 280 | 355 | 500 | 400 | 200 | 150 | 400 | 23 | 387 | 140 | 318 | 82 | 385 | 317 | 305 | 370 | 200 | 30 | 19 | 569 | 635 | 1050 | 409 |
| 100-400/370/W | B | 125 | 100 | 140 | 100 | 284 | 26 | 280 | 355 | 500 | 400 | 200 | 150 | 450 | 23 | 433 | 140 | 356 | 82 | 436 | 380 | 286 | 409 | 225 | 30 | 19 | 569 | 660 | 1170 | 567 |
| 100-400/450/W | B | 125 | 100 | 140 | 100 | 284 | 26 | 280 | 355 | 500 | 400 | 200 | 150 | 450 | 23 | 433 | 140 | 356 | 82 | 436 | 380 | 311 | 409 | 225 | 30 | 19 | 569 | 660 | 1170 | 595 |
| 125-200/55/P | A | 150 | 125 | 140 | 80 | 210 | 26 | 250 | 315 | 400 | 315 | 160 | 120 | 300 | 19 | - | 140 | - | - | - | 191 | - | - | - | - | - | 468 | 565 | 755 | 166 |
| 125-200/75/P | A | 150 | 125 | 140 | 80 | 210 | 26 | 250 | 315 | 400 | 315 | 160 | 120 | 300 | 19 | - | 140 | - | - | - | 191 | - | - | - | - | - | 468 | 565 | 755 | 170 |
| 125-200/110/P | B | 150 | 125 | 140 | 80 | 240 | 26 | 250 | 315 | 400 | 315 | 160 | 120 | 350 | 19 | 348 | 140 | 254 | 49 | 304 | 240 | 210 | 304 | 160 | 5 | 15 | 468 | 565 | 874 | 192 |
| 125-250/110/P | B | 150 | 125 | 140 | 80 | 240 | 26 | 250 | 355 | 400 | 315 | 160 | 120 | 350 | 19 | 348 | 140 | 254 | 49 | 304 | 240 | 210 | 304 | 160 | 5 | 15 | 470 | 605 | 874 | 195 |
| 125-250/150/P | B | 150 | 125 | 140 | 80 | 240 | 26 | 250 | 355 | 400 | 315 | 160 | 120 | 350 | 19 | 348 | 140 | 254 | 49 | 304 | 240 | 210 | 304 | 160 | 5 | 15 | 470 | 605 | 874 | 237 |
| 125-315/185/W | B | 150 | 125 | 140 | 100 | 254 | 26 | 280 | 355 | 500 | 400 | 200 | 150 | 350 | 23 | 375 | 140 | 279 | 78 | 350 | 279 | 241 | 294 | 180 | 28 | 15 | 518 | 635 | 948 | 315 |
| 125-315/220/W | B | 150 | 125 | 140 | 100 | 254 | 26 | 280 | 355 | 500 | 400 | 200 | 150 | 350 | 23 | 375 | 140 | 279 | 78 | 350 | 279 | 279 | 332 | 180 | 28 | 15 | 518 | 635 | 986 | 333 |
| 125-315/300/W | B | 150 | 125 | 140 | 100 | 254 | 26 | 280 | 355 | 500 | 400 | 200 | 150 | 400 | 23 | 387 | 140 | 318 | 82 | 385 | 317 | 305 | 370 | 200 | 30 | 19 | 518 | 635 | 1051 | 379 |
| 125-315/370/W | B | 150 | 125 | 140 | 100 | 284 | 26 | 280 | 355 | 500 | 400 | 200 | 150 | 450 | 23 | 433 | 140 | 356 | 80 | 436 | 384 | 286 | 412 | 225 | 34 | 19 | 518 | 664 | 1170 | 537 |
| 125-400/370/W | B | 150 | 125 | 140 | 100 | 284 | 26 | 315 | 400 | 500 | 400 | 200 | 150 | 450 | 23 | 433 | 140 | 356 | 80 | 436 | 384 | 286 | 412 | 225 | 34 | 19 | 607 | 715 | 1170 | 585 |
| 125-400/450/W | B | 150 | 125 | 140 | 100 | 284 | 26 | 315 | 400 | 500 | 400 | 200 | 150 | 450 | 23 | 433 | 140 | 356 | 80 | 436 | 384 | 311 | 412 | 225 | 34 | 19 | 607 | 715 | 1170 | 613 |
| 125-400/550/W | B | 150 | 125 | 140 | 100 | 284 | 26 | 315 | 400 | 500 | 400 | 200 | 150 | 550 | 23 | 452 | 140 | 406 | 100 | 506 | 402 | 349 | 467 | 250 | 43 | 24 | 607 | 717 | 1249 | 709 |
| 125-400/750/W | B | 150 | 125 | 140 | 100 | 284 | 26 | 315 | 400 | 500 | 400 | 200 | 150 | 550 | 23 | 474 | 140 | 457 | 100 | 557 | 472 | 368 | 517 | 280 | 42 | 24 | 607 | 787 | 1355 | 933 |
| 150-200/110A/P | B | 200 | 150 | 160 | 100 | 240 | 26 | 280 | 400 | 550 | 450 | 200 | 150 | 350 | 23 | 348 | 140 | 254 | 49 | 304 | 240 | 210 | 304 | 160 | 5 | 15 | 602 | 680 | 894 | 248 |
| 150-200/110/P | B | 200 | 150 | 160 | 100 | 240 | 26 | 280 | 400 | 550 | 450 | 200 | 150 | 350 | 23 | 348 | 140 | 254 | 49 | 304 | 240 | 210 | 304 | 160 | 5 | 15 | 602 | 680 | 894 | 248 |
| 150-200/150A/P | B | 200 | 150 | 160 | 100 | 240 | 26 | 280 | 400 | 550 | 450 | 200 | 150 | 350 | 23 | 348 | 140 | 254 | 49 | 304 | 240 | 210 | 304 | 160 | 5 | 15 | 602 | 680 | 894 | 290 |
| 150-200/150/P | B | 200 | 150 | 160 | 100 | 240 | 26 | 280 | 400 | 550 | 450 | 200 | 150 | 350 | 23 | 348 | 140 | 254 | 49 | 304 | 240 | 210 | 304 | 160 | 5 | 15 | 602 | 680 | 894 | 290 |
| 150-250/150/P | B | 200 | 150 | 160 | 100 | 254 | 26 | 280 | 400 | 500 | 400 | 200 | 150 | 350 | 23 | 362 | 140 | 254 | 49 | 304 | 240 | 210 | 304 | 160 | 5 | 15 | 567 | 680 | 908 | 294 |
| 150-250/185/W | B | 200 | 150 | 160 | 100 | 254 | 26 | 280 | 400 | 500 | 400 | 200 | 150 | 350 | 23 | 375 | 140 | 279 | 78 | 350 | 279 | 241 | 294 | 180 | 28 | 15 | 567 | 680 | 968 | 345 |
| 150-250/220/W | B | 200 | 150 | 160 | 100 | 254 | 26 | 280 | 400 | 500 | 400 | 200 | 150 | 350 | 23 | 375 | 140 | 279 | 78 | 350 | 279 | 279 | 332 | 180 | 28 | 15 | 567 | 680 | 1006 | 363 |
| 150-250/300/W | B | 200 | 150 | 160 | 100 | 254 | 26 | 280 | 400 | 500 | 400 | 200 | 150 | 400 | 23 | 387 | 140 | 318 | 82 | 385 | 317 | 305 | 370 | 200 | 30 | 19 | 567 | 680 | 1071 | 409 |
| 150-315/300/W | B | 200 | 150 | 160 | 100 | 254 | 26 | 280 | 400 | 550 | 450 | 200 | 150 | 400 | 23 | 387 | 140 | 318 | 82 | 385 | 317 | 305 | 370 | 200 | 30 | 19 | 586 | 680 | 1071 | 406 |
| 150-315/370/W | B | 200 | 150 | 160 | 100 | 284 | 26 | 280 | 400 | 550 | 450 | 200 | 150 | 450 | 23 | 433 | 140 | 356 | 80 | 436 | 384 | 286 | 412 | 225 | 34 | 19 | 586 | 680 | 1190 | 564 |
| 150-315/450/W | B | 200 | 150 | 160 | 100 | 284 | 26 | 280 | 400 | 550 | 450 | 200 | 150 | 450 | 23 | 433 | 140 | 356 | 80 | 436 | 384 | 311 | 412 | 225 | 34 | 19 | 586 | 680 | 1190 | 592 |
| 150-400/450/W | B | 200 | 150 | 160 | 100 | 284 | 26 | 315 | 450 | 550 | 450 | 200 | 150 | 450 | 23 | 433 | 140 | 356 | 80 | 436 | 384 | 311 | 412 | 225 | 34 | 19 | 622 | 765 | 1190 | 621 |
| 150-400/550/W | B | 200 | 150 | 160 | 100 | 284 | 26 | 315 | 450 | 550 | 450 | 200 | 150 | 550 | 23 | 452 | 140 | 406 | 100 | 506 | 402 | 349 | 467 | 250 | 43 | 24 | 622 | 765 | 1269 | 738 |
| 150-400/750/W | B | 200 | 150 | 160 | 100 | 284 | 26 | 315 | 450 | 550 | 450 | 200 | 150 | 550 | 23 | 474 | 140 | 457 | 100 | 557 | 472 | 368 | 517 | 280 | 42 | 24 | 622 | 787 | 1375 | 961 |
| 150-400/900/W | B | 200 | 150 | 160 | 100 | 284 | 26 | 315 | 450 | 550 | 450 | 200 | 150 | 550 | 23 | 474 | 140 | 457 | 100 | 557 | 472 | 419 | 517 | 280 | 42 | 24 | 622 | 787 | 1375 | 1009 |
| 200-250/185/W | B | 250 | 200 | 180 | 100 | 254 | 26 | 355 | 475 | 550 | 450 | 200 | 150 | 350 | 23 | 375 | 200 | 279 | 78 | 350 | 279 | 241 | 294 | 180 | 28 | 15 | 655 | 830 | 988 | 385 |
| 200-250/220/W | B | 250 | 200 | 180 | 100 | 254 | 26 | 355 | 475 | 550 | 450 | 200 | 150 | 350 | 23 | 375 | 200 | 279 | 78 | 350 | 279 | 279 | 332 | 180 | 28 | 15 | 655 | 830 | 1026 | 403 |
| 200-250/300A/W | B | 250 | 200 | 180 | 100 | 254 | 26 | 355 | 475 | 550 | 450 | 200 | 150 | 400 | 23 | 387 | 200 | 318 | 82 | 385 | 317 | 305 | 370 | 200 | 30 | 19 | | | | |