

 Domestic use

 Agricultural use

 Industrial use



### PERFORMANCE RANGE

- Flow rate up to **900 l/min** (54 m<sup>3</sup>/h)
- Head up to **20.5 m**

### INSTALLATION AND USE

Designed to transfer liquids that will not damage the pump's components, NGAS pumps feature an open impeller design.

This allows them to efficiently handle impurity-laden fluids without clogging, making them ideal for various applications including transfers from channels, rivers, tanks, basins, and more.

NGAs pumps are particularly suitable for pumping non-entirely clean liquids, facilitating the movement of solid particles up to **20 mm** in size.

### ELECTRIC MOTOR

The three-phase pumps are equipped with newly developed electric motors designed to work with inverters, which guarantee stable and quiet operation.

Efficiency class **IE3** for three-phase motors and **IE2** for single-phase motors, with class F insulation and IPX4 protection.

### APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** up and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Maximum working pressure:
  - **6 bar** for NGA1 and NGA2
  - **10 bar** for NGA3
- Passing solid in suspension up to:
  - **Ø 12 mm** for NGA1 and NGA2
  - **Ø 20 mm** for NGA3

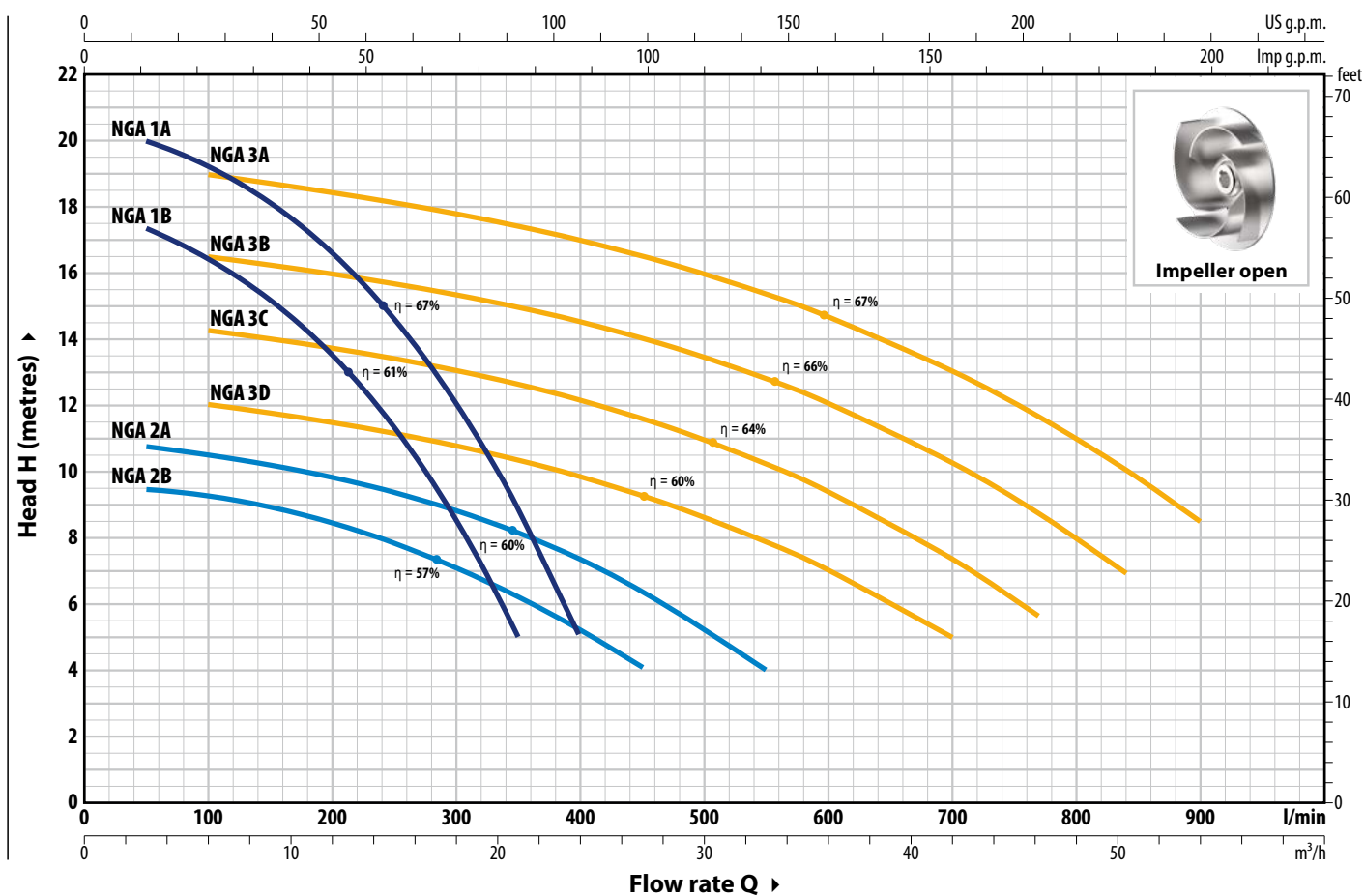
### AVAILABLE UPON REQUEST

- ✘ Mechanical seal options available
- ✘ Pump body with NPT threaded ports ANSI B 1.20.1
- ✘ On request up to **110 °C**
- ✘ **IP X5** protection for **NGA 3**
- ✘ Different voltage requirements 60 Hz frequency
- ✘ Supply of ISO 228/1 flanges for suction and delivery ports in AISI 304 stainless steel



# CURVES AND PERFORMANCE DATA – HS=0 m

50 Hz



| TYPE         |             | POWER (P <sub>2</sub> ) |      | 1~3~    | Q        | m <sup>3</sup> /h |      |      |      |      |      |     |     |     |  |  |  |
|--------------|-------------|-------------------------|------|---------|----------|-------------------|------|------|------|------|------|-----|-----|-----|--|--|--|
| Single-phase | Three-phase | kW                      | HP   |         |          | 0                 | 3    | 6    | 9    | 12   | 15   | 18  | 21  | 24  |  |  |  |
|              |             |                         |      |         |          | 0                 | 50   | 100  | 150  | 200  | 250  | 300 | 350 | 400 |  |  |  |
| NGAm 1B      | NGA 1B      | 0.55                    | 0.75 | IE2 IE3 | H metres | 18                | 17.4 | 16.4 | 15.2 | 13.5 | 11.3 | 8.7 | 5   |     |  |  |  |
| NGAm 1A      | NGA 1A      | 0.75                    | 1    |         |          | 20.5              | 20   | 19.3 | 18   | 16.6 | 14.7 | 12  | 9   | 5   |  |  |  |

| TYPE         |             | POWER (P <sub>2</sub> ) |      | 1~3~    | Q        | m <sup>3</sup> /h |      |      |      |      |      |      |      |      |      |     |     |  |  |
|--------------|-------------|-------------------------|------|---------|----------|-------------------|------|------|------|------|------|------|------|------|------|-----|-----|--|--|
| Single-phase | Three-phase | kW                      | HP   |         |          | 0                 | 3    | 6    | 12   | 18   | 24   | 27   | 33   | 42   | 46   | 51  | 54  |  |  |
|              |             |                         |      |         |          | 0                 | 50   | 100  | 200  | 300  | 400  | 450  | 550  | 700  | 770  | 840 | 900 |  |  |
| NGAm 2B      | NGA 2B      | 0.55                    | 0.75 | IE2 IE3 | H metres | 9.5               | 9.4  | 9.3  | 8.4  | 7    | 5.2  | 4    |      |      |      |     |     |  |  |
| NGAm 2A      | NGA 2A      | 0.75                    | 1    |         |          | 11                | 10.8 | 10.5 | 9.8  | 8.8  | 7.4  | 6.4  | 4    |      |      |     |     |  |  |
| NGAm 3D      | NGA 3D      | 1.1                     | 1.5  |         |          | 12.5              | –    | 12   | 11.5 | 10.8 | 9.8  | 9.3  | 7.8  | 5    |      |     |     |  |  |
| NGAm 3C      | NGA 3C      | 1.5                     | 2    |         |          | 14.8              | –    | 14.4 | 13.8 | 13.1 | 12.2 | 11.7 | 10.3 | 7.4  | 5.7  |     |     |  |  |
| NGAm 3B      | NGA 3B      | 1.8                     | 2.5  |         |          | 17                | –    | 16.5 | 16   | 15.3 | 14.5 | 14   | 12.8 | 10.3 | 8.8  | 7   |     |  |  |
| NGAm 3A      | NGA 3A      | 2.2                     | 3    |         |          | 19.5              | –    | 19   | 18.4 | 17.8 | 17   | 16.5 | 15.4 | 13   | 11.5 | 10  | 8.5 |  |  |

Q = Flow rate H = Total manometric head HS = Suction height

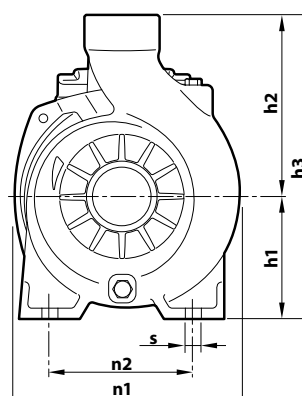
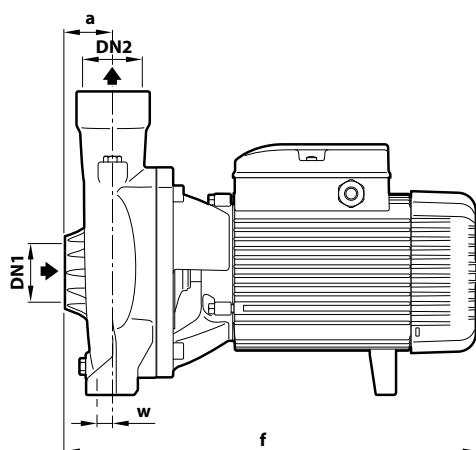
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

### ABSORPTION

| TYPE                | VOLTAGE      |
|---------------------|--------------|
| <b>Single-phase</b> | <b>230 V</b> |
| NGAm 1B             | 5.5 A        |
| NGAm 1A             | 6.0 A        |
| NGAm 2B             | 5.0 A        |
| NGAm 2A             | 5.7 A        |
| NGAm 3D             | 7.5 A        |
| NGAm 3C             | 9.5 A        |
| NGAm 3B             | 10.5 A       |
| NGAm 3A             | 12.5 A       |

| TYPE               | VOLTAGE          |                  |
|--------------------|------------------|------------------|
| <b>Three-phase</b> | <b>230 V - Δ</b> | <b>400 V - Δ</b> |
| NGA 1B             | 3.8 A            | 2.2 A            |
| NGA 1A             | 4.2 A            | 2.4 A            |
| NGA 2B             | 3.5 A            | 2.0 A            |
| NGA 2A             | 4.0 A            | 2.3 A            |
| NGA 3D             | 5.0 A            | 2.9 A            |
| NGA 3C             | 6.1 A            | 3.5 A            |
| NGA 3B             | 7.8 A            | 4.5 A            |
| NGA 3A             | 8.3 A            | 4.8 A            |

### DIMENSIONS AND WEIGHT

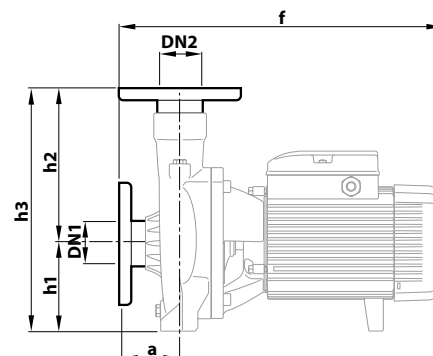


#### WITH THREADED PORTS

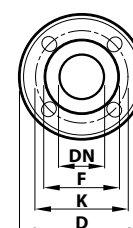
| TYPE         |             | PORTS |     | DIMENSIONS mm |     |     |     |     |     |     |    |      | kg   |      |
|--------------|-------------|-------|-----|---------------|-----|-----|-----|-----|-----|-----|----|------|------|------|
| Single-phase | Three-phase | DN1   | DN2 | a             | f   | h1  | h2  | h3  | n1  | n2  | w  | s    | 1~   | 3~   |
| NGAm 1B      | NGA 1B      | 1½"   | 1½" | 40            | 299 | 92  | 135 | 227 | 190 | 160 | 6  | 11   | 12.6 | 12.6 |
| NGAm 1A      | NGA 1A      |       |     |               |     |     |     |     |     |     |    |      | 12.7 | 12.6 |
| NGAm 2B      | NGA 2B      |       |     |               |     |     |     |     |     |     |    |      | 12.7 | 12.6 |
| NGAm 2A      | NGA 2A      |       |     | 32            |     |     |     |     |     |     |    |      |      | 12.7 |
| NGAm 3D      | NGA 3D      | 2"    | 2"  | 48            | 387 | 120 | 178 | 298 | 217 | 140 | 18 | 11.5 | 22.0 | 21.2 |
| NGAm 3C      | NGA 3C      |       |     |               |     |     |     |     |     |     |    |      | 22.9 | 22.9 |
| NGAm 3B      | NGA 3B      |       |     |               |     |     |     |     |     |     |    |      | 25.4 | 25.5 |
| NGAm 3A      | NGA 3A      |       |     |               | 407 |     |     |     |     |     |    |      |      | 25.5 |

#### WITH FLANGED PORTS

| TYPE         |             | PORTS |     | DIMENSIONS mm |     |    |     |     |     |     |
|--------------|-------------|-------|-----|---------------|-----|----|-----|-----|-----|-----|
| Single-phase | Three-phase | DN1   | DN2 | a             | f   | h1 | h2  | h3  |     |     |
| NGAm 1B      | NGA 1B      | 40    | 40  | 60            | 334 | 92 | 156 | 248 |     |     |
| NGAm 1A      | NGA 1A      |       |     | 52            | 342 |    |     |     |     |     |
| NGAm 2B      | NGA 2B      |       |     | 50            | 50  | 70 | 408 | 120 | 200 | 320 |
| NGAm 2A      | NGA 2A      |       |     |               |     |    | 428 |     |     |     |
| NGAm 3D      | NGA 3D      |       |     |               |     |    |     |     |     |     |
| NGAm 3C      | NGA 3C      |       |     |               |     |    |     |     |     |     |
| NGAm 3B      | NGA 3B      |       |     |               |     |    |     |     |     |     |
| NGAm 3A      | NGA 3A      |       |     |               |     |    |     |     |     |     |



| FLANGE | D   | K   | F  | HOLES |        |
|--------|-----|-----|----|-------|--------|
| DN     | mm  | mm  | mm | N°    | Ø (mm) |
| 40     | 150 | 110 | 78 | 4     | 18     |
| 50     | 165 | 125 | 99 | 4     | 18     |



## MATERIALS AND COMPONENTS

**1 Pump body** Cast iron JL 250 with cataphoresis treatment with ISO 228/1 threaded ports

**2 Cover** Cast iron JL 200 for NGA3  
**AISI 304** stainless steel for NGA1 and NGA2

**3 Impeller** Open impeller in **AISI 316** stainless steel (from January 2024)

| <b>4 Mechanical seal</b> | Water pump | Seal         | Shaft   | Materials                |
|--------------------------|------------|--------------|---------|--------------------------|
|                          | NGA1       | <b>AR-14</b> | Ø 14 mm | Ceramic / Graphite / NBR |
|                          | NGA2       |              |         |                          |
|                          | NGA3       | <b>FN-18</b> | Ø 18 mm | Graphite / Ceramic / NBR |

**5 Motor shaft** Stainless steel **AISI 431**

**6 Electric motor** **NGAm:** single-phase 230 V - 50Hz with winding integrated thermal motor protection  
**NGA:** three-phase 230/400 V - 50 Hz  
 ※ Pumps are equipped with high-efficiency motors (IEC 60034-30-1)  
     class **IE2** for single-phase models  
     class **IE3** for three-phase models  
 Continuous running duty **S1**

