

# NGA-PRO

## Stainless steel pumps with open impeller


WITH STAINLESS STEEL AISI 316 PUMP BODY

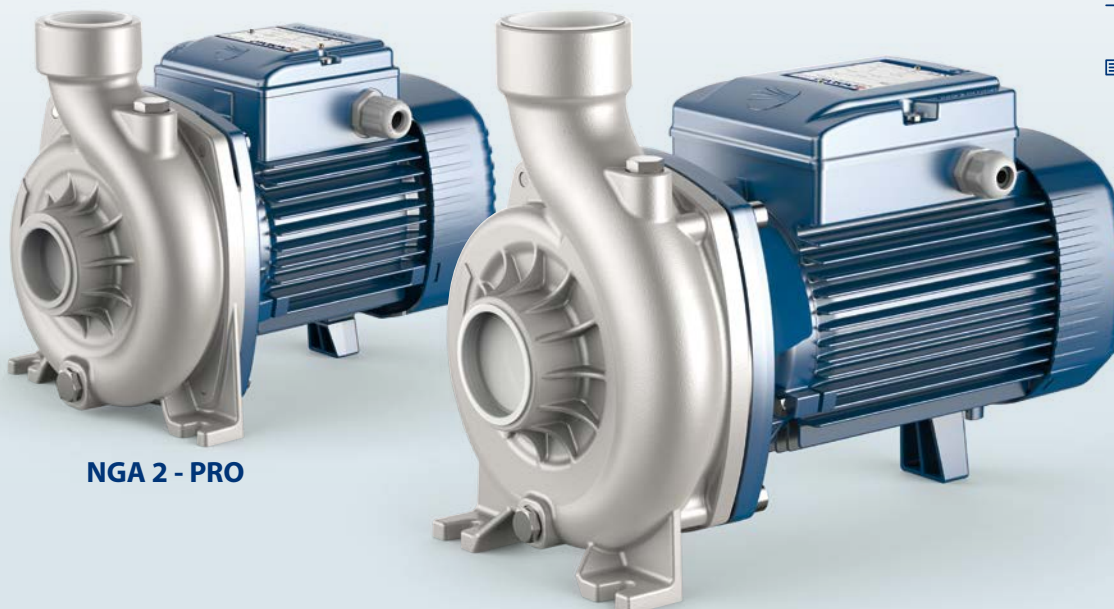
 Clean water

 Domestic use

 Civil use

 Agricultural use

 Industrial use



NGA 2 - PRO

NGA 3 - PRO

### PERFORMANCE RANGE

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

### APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Max. working pressure:
  - **6 bar** for NGA1-PRO e NGA2-PRO
  - **10 bar** for NGA3-PRO
- Passage of suspended solids up to:
  - **Ø 12 mm** for NGA1-PRO e NGA2-PRO
  - **Ø 20 mm** for NGA3-PRO
- Continuous service **S1**

### CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1  
IEC 60335-1  
CEI 61-150

EN 60034-1  
IEC 60034-1  
CEI 2-3



EU REGULATION N. 547/2012

### CERTIFICATIONS

Company with management system certified DNV ISO 9001: QUALITY



### INSTALLATION AND USE

Suitable for use with liquids that are not chemically aggressive towards the materials from which the pump is made.

The open impeller design allows **liquids containing relatively high levels of impurities** to be pumped without the risk of the impeller clogging.

All of the components in contact with the pumped liquid are constructed in **stainless steel AISI 316**.

**NGA-PRO** pumps are particularly suitable for pumping liquids that are not completely clean, guaranteeing the passage of solids up to 20 mm and therefore applications such as: washing, circulation of cooling liquids, tanks etc.

Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

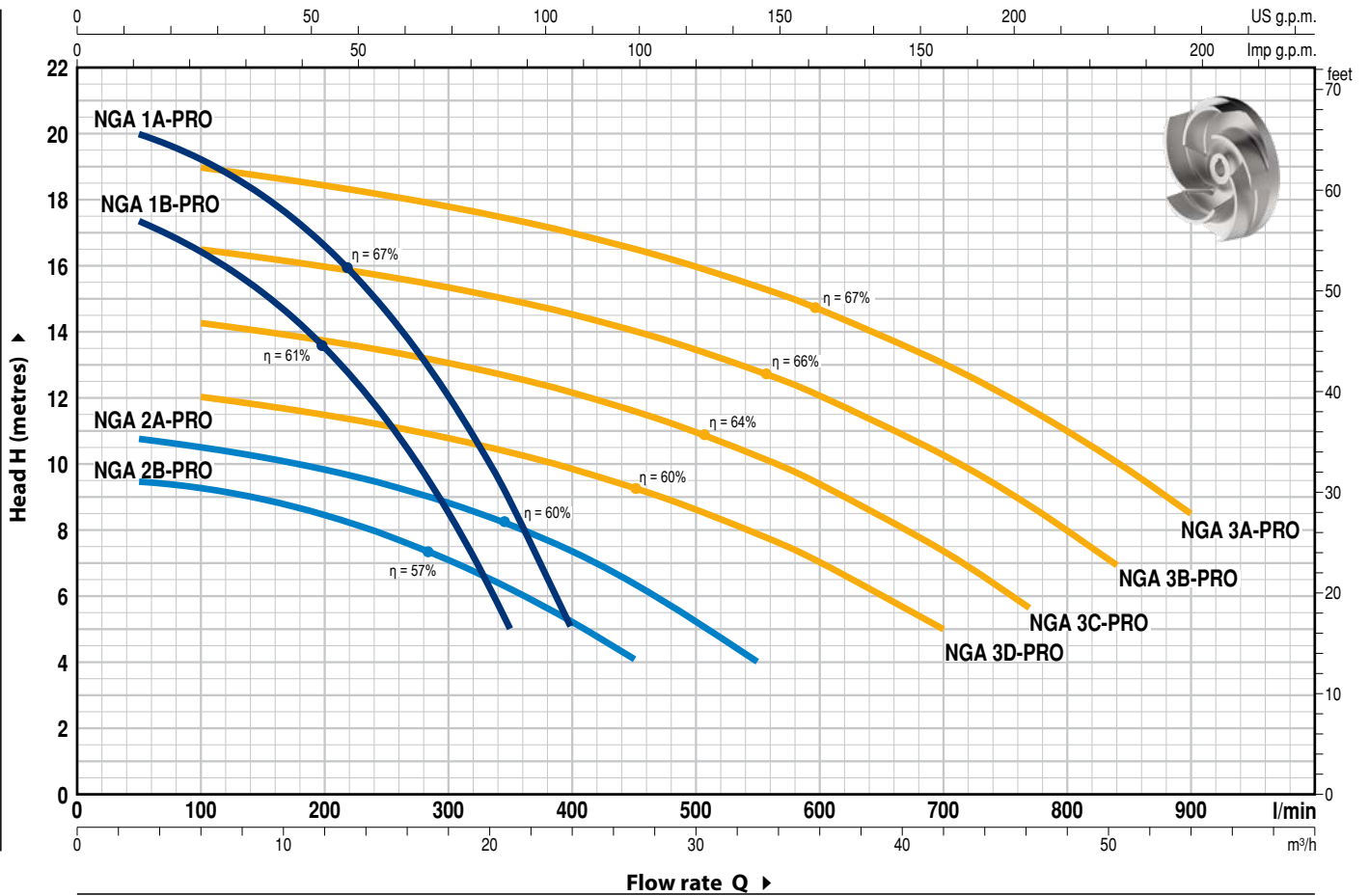
### OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Standardised mechanical seal with anti-rotation (NGA3-PRO)
- Pump body with threaded ports NPT ANSI B 1.20.1
- On request up to **110 °C**
- Protection **IP X5** for **NGA 3-PRO**
- Other voltages or 60 Hz frequency
- Supply of ISO 228/1 flanges for intake and delivery ports in AISI 316 stainless steel



### CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 min<sup>-1</sup> HS = 0 m



MODEL		POWER (P <sub>2</sub> )			Q	Flow rate (l/min)											
Single-phase	Three-phase	kW	HP	▲		0	3	6	9	12	15	18	21	24			
NGAm 1B - PRO	NGA 1B - PRO	0.55	0.75	IE3	H metres	18	17.4	16.4	15.2	13.5	11.3	8.7	5				
NGAm 1A - PRO	NGA 1A - PRO	0.75	1			20.5	20	19.3	18.1	16.6	14.7	12.1	9	5			

TIPO		POWER (P <sub>2</sub> )			Q	Flow rate (l/min)													
Single-phase	Three-phase	kW	HP	▲		0	3	6	12	18	24	27	33	42	46.2	50.4	54		
NGAm 2B - PRO	NGA 2B - PRO	0.55	0.75	IE3	H metres	9.5	9.4	9.3	8.4	7	5.2	4							
NGAm 2A - PRO	NGA 2A - PRO	0.75	1			11	10.8	10.5	9.8	8.8	7.4	6.4	4						
NGAm 3D - PRO	NGA 3D - PRO	1.1	1.5			12.5	-	12	11.5	10.8	9.8	9.3	7.8	5					
NGAm 3C - PRO	NGA 3C - PRO	1.5	2			14.8	-	14.4	13.8	13.1	12.2	11.7	10.3	7.4	5.7				
NGAm 3B - PRO	NGA 3B - PRO	1.8	2.5			17	-	16.5	16	15.3	14.5	14	12.8	10.3	8.8	7			
NGAm 3A - PRO	NGA 3A - PRO	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

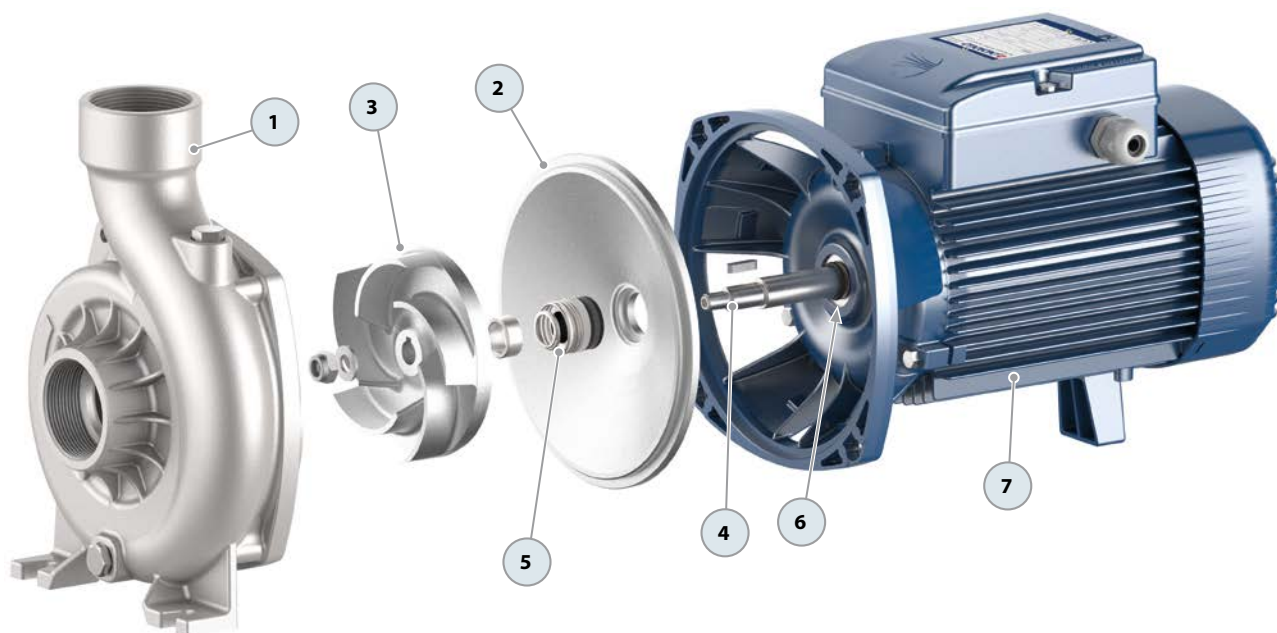
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Three-phase motor efficiency class (IEC 60034-30-1)

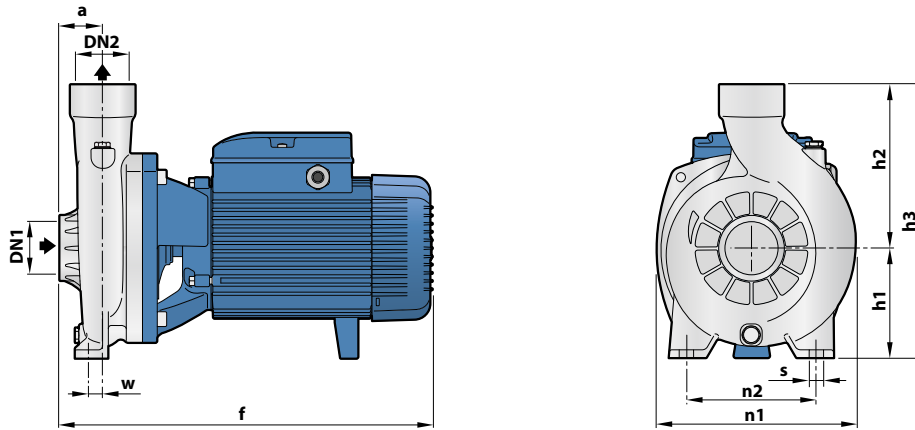
# NGA-PRO

## POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	<b>PUMP BODY</b>	Stainless steel AISI 316 complete with threaded ports in compliance with ISO 228/1						
2	<b>BODY BACKPLATE</b>	Stainless steel AISI 316						
3	<b>IMPELLER</b>	Open impeller in stainless steel AISI 316						
4	<b>MOTOR SHAFT</b>	Stainless steel AISI 316L						
5	<b>MECHANICAL SEAL</b>	<b>Pump</b>	<b>Tenuta</b>	<b>Shaft</b>	<b>Materials</b>			
		<i>Model</i>	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>	<i>Spring</i>
		<b>NGA1-PRO</b>	<b>AR-14S</b>	<b>Ø 14 mm</b>	Ceramic	Graphite	Viton	AISI 316
		<b>NGA2-PRO</b>						
<b>NGA3-PRO</b>	<b>FN-18 V6</b>	<b>Ø 18 mm</b>	Graphite	Ceramic	Viton	AISI 316		
6	<b>BEARINGS</b>	<b>Pump</b>	<b>Model</b>					
		<b>NGA1-PRO</b>	<b>6203 ZZ / 6203 ZZ</b>					
		<b>NGA2-PRO</b>	<b>6204 ZZ / 6204 ZZ</b>					
		<b>NGA3-PRO</b>	<b>6204 ZZ / 6204 ZZ</b>					
7	<b>ELECTRIC MOTOR</b>	<p><b>NGAm-PRO:</b> single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.</p> <p><b>NGA-PRO:</b> three-phase 230/400 V - 50 Hz.</p> <p>⇒ <b>The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)</b></p> <ul style="list-style-type: none"> <li>- Insulation: class F</li> <li>- Protection: IP X4</li> </ul>						



## DIMENSIONS AND WEIGHT

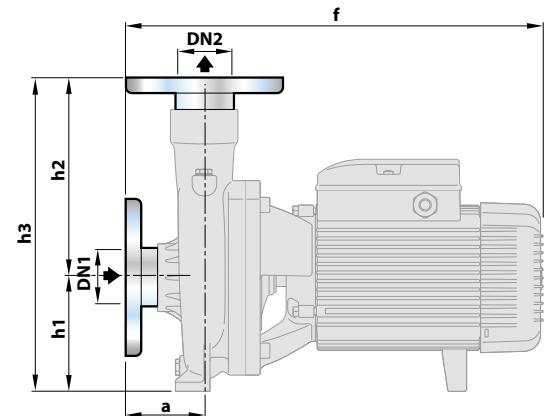


### WITH THREADED PORTS

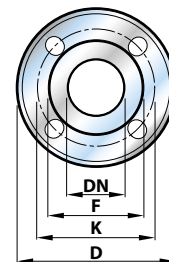
MODEL		PORTS		DIMENSIONS mm									kg	
Single-phase	Three-phase	DN1	DN2	a	f	h1	h2	h3	n1	n2	w	s	1~	3~
NGAm 1B - PRO	NGA 1B - PRO	1½"	1½"	40	299	92	135	227	190	160	6	11	12.9	12.7
NGAm 1A - PRO	NGA 1A - PRO			32									13.1	13.0
NGAm 2B - PRO	NGA 2B - PRO			32									13.2	13.0
NGAm 2A - PRO	NGA 2A - PRO			32									13.4	13.3
NGAm 3D - PRO	NGA 3D - PRO	2"	2"	48	387	120	178	298	217	140	18	11.5	20.9	21.0
NGAm 3C - PRO	NGA 3C - PRO			407									22.1	22.1
NGAm 3B - PRO	NGA 3B - PRO			407									24.5	24.8
NGAm 3A - PRO	NGA 3A - PRO			407									24.5	24.8

### WITH FLANGED PORTS

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



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



## ABSORPTION AND CAPACITORS

MODEL	VOLTAGE		CAPACITANCE
	230 V	240 V	
Single-phase	230 V	240 V	(230 V or 240 V)
NGAm 1B - PRO	5.5 A	5.3 A	20 µF - 450 VL
NGAm 1A - PRO	6.0 A	5.8 A	20 µF - 450 VL
NGAm 2B - PRO	5.0 A	4.8 A	20 µF - 450 VL
NGAm 2A - PRO	5.7 A	5.5 A	20 µF - 450 VL
NGAm 3D - PRO	7.5 A	7.2 A	31.5 µF - 450 VL
NGAm 3C - PRO	9.5 A	9.1 A	45 µF - 450 VL
NGAm 3B - PRO	10.5 A	10.1 A	50 µF - 450 VL
NGAm 3A - PRO	12.5 A	12.0 A	50 µF - 450 VL

MODEL	VOLTAGE					
	230 V	400 V	690 V	240 V	415 V	720 V
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
NGA 1B - PRO	3.8 A	2.2 A	1.3 A	3.6 A	2.1 A	1.2 A
NGA 1A - PRO	4.2 A	2.4 A	1.4 A	4.0 A	2.3 A	1.3 A
NGA 2B - PRO	3.5 A	2.0 A	1.2 A	3.3 A	1.9 A	1.1 A
NGA 2A - PRO	4.0 A	2.3 A	1.3 A	3.8 A	2.2 A	1.3 A
NGA 3D - PRO	5.0 A	2.9 A	1.7 A	4.8 A	2.8 A	1.6 A
NGA 3C - PRO	6.1 A	3.5 A	2.0 A	5.8 A	3.4 A	1.9 A
NGA 3B - PRO	7.8 A	4.5 A	2.6 A	7.5 A	4.3 A	2.5 A
NGA 3A - PRO	8.3 A	4.8 A	2.8 A	8.0 A	4.6 A	2.7 A