

# NGA-PRO

## Stainless steel pumps with open impeller

WITH STAINLESS STEEL AISI 316 PUMP BODY

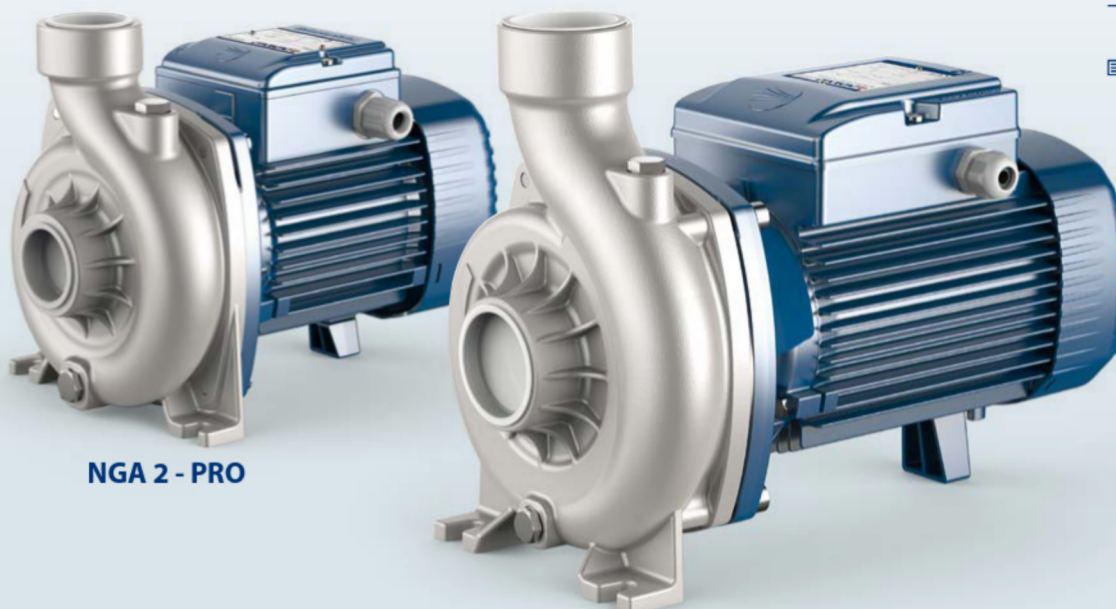
 Clean water

 Domestic use

 Civil use

 Agricultural use

 Industrial use



NGA 2 - PRO

NGA 3 - PRO

### PERFORMANCE RANGE

- Flow rate up to **850 l/min** (51 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.

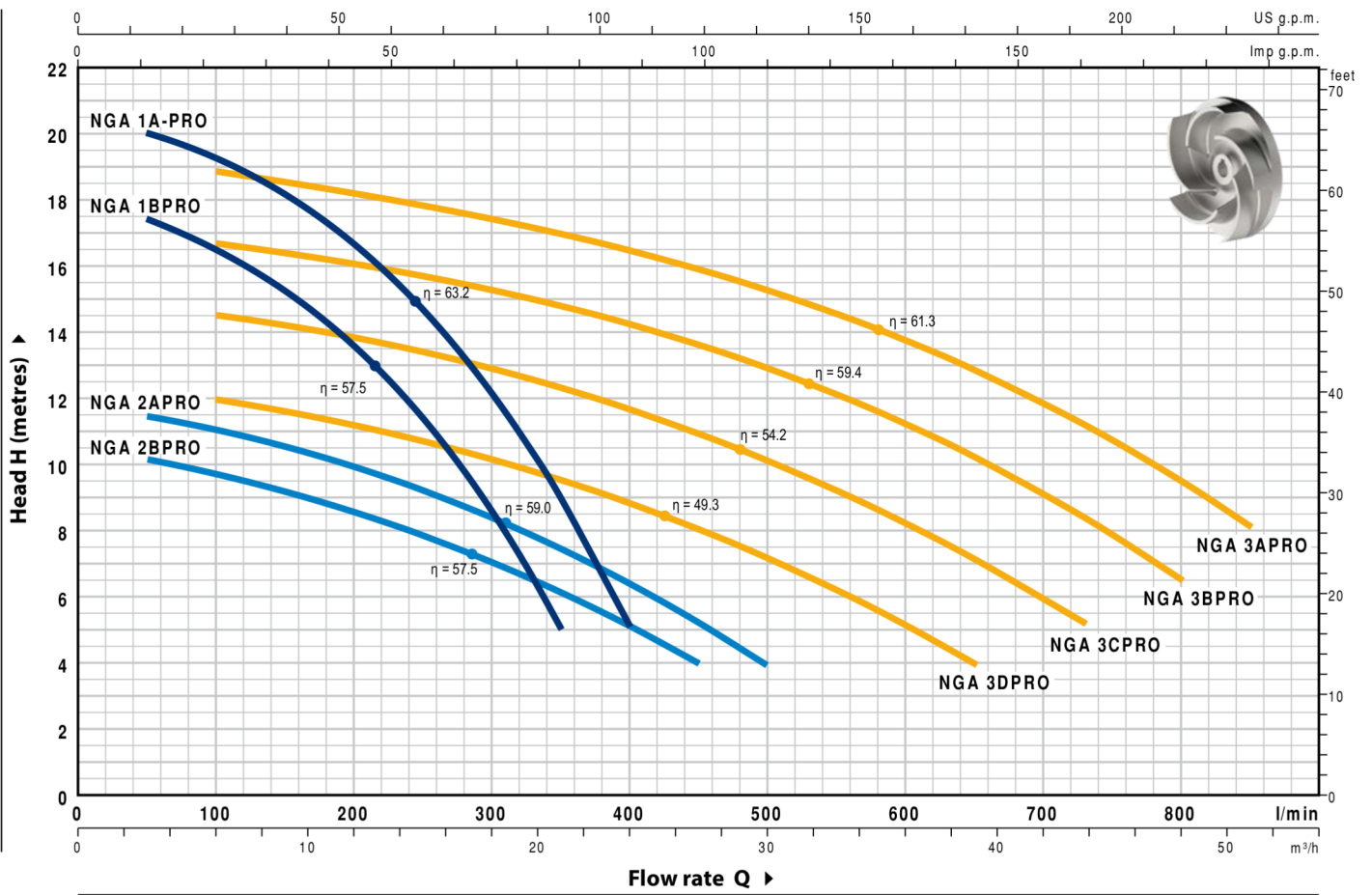
### OPTIONS AVAILABLE ON REQUEST

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



### CHARACTERISTIC CURVES AND PERFORMANCE DATA

60 Hz n = 3450 min<sup>-1</sup> HS = 0 m



MODEL		POWER (P <sub>2</sub> )			Q	Flow rate											
Single-phase	Three-phase	kW	HP	▲		m <sup>3</sup> /h	0	3	6	9	12	15	18	21	24		
NGAm 1B - PRO	NGA 1B - PRO	0.55	0.75	IE3	H metres	0	50	100	150	200	250	300	350	400			
NGAm 1A - PRO	NGA 1A - PRO	0.75	1			18	17.4	16.4	15.2	13.5	11.3	8.7	5				
						20.5	20	19.3	18.1	16.6	14.7	12.1	9	5			

MODEL		POWER (P <sub>2</sub> )			Q	Flow rate														
Single-phase	Three-phase	kW	HP	▲		m <sup>3</sup> /h	0	3	6	12	18	24	27	30	39	43,8	48	51		
NGAm 2B - PRO	NGA 2B - PRO	0.55	0.75	IE3	H metres	0	50	100	200	300	400	450	500	650	730	800	850			
NGAm 2A - PRO	NGA 2A - PRO	0.75	1			10.5	10.1	9.6	8.5	7	5.1	4								
NGAm 3D - PRO	NGA 3D - PRO	1.1	1.5			11.8	11.4	11	9.9	8.4	6.4	5.2	4							
NGAm 3C - PRO	NGA 3C - PRO	1.5	2			12.5	-	12	11.2	10.1	8.8	8	7.1	4						
NGAm 3B - PRO	NGA 3B - PRO	1.8	2.5			15	-	14.5	13.8	12.8	11.6	10.9	10.1	7.1	5.2					
NGAm 3A - PRO	NGA 3A - PRO	2.2	3			17.2	-	16.7	16	15.2	14.2	13.6	12.9	10.2	8.4	6.5				
						19.5	-	18.8	18.1	17.4	16.4	15.8	15.2	12.8	11.1	9.4	8			

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

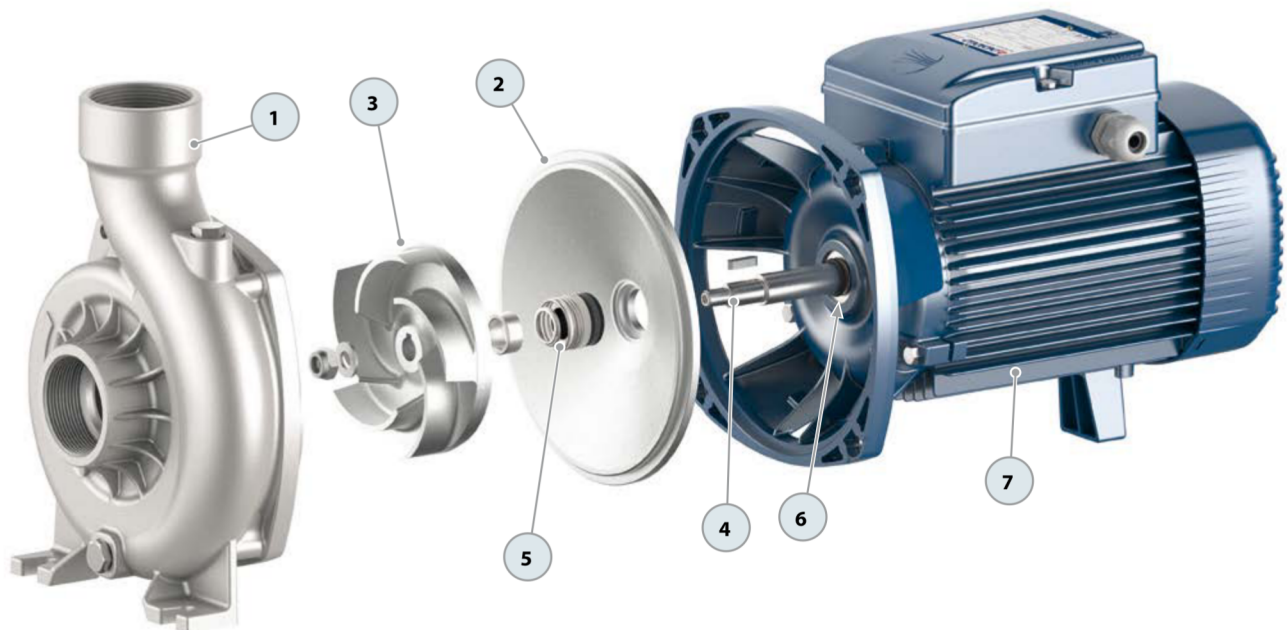
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

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

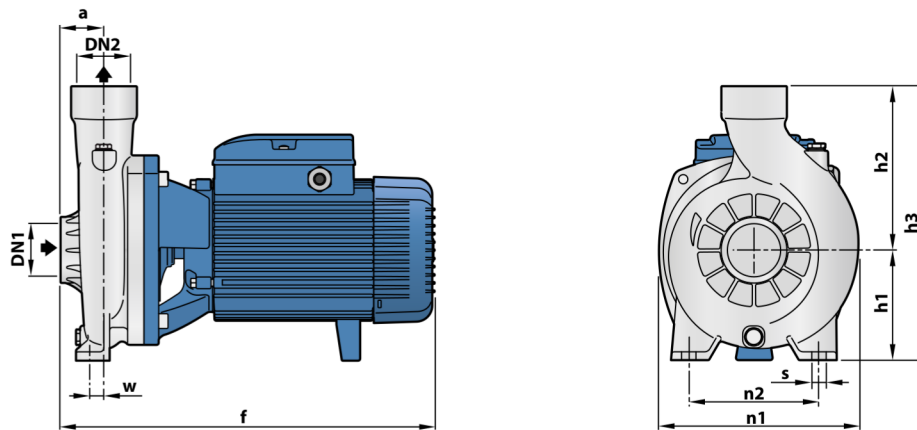
# NGA-PRO

## 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>	<i>Pump</i>	<i>Tenuta</i>	<i>Shaft</i>	<i>Materials</i>			
		<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>FN-18 V6</b>	<b>Ø 18 mm</b>	Graphite	Ceramic	Viton	AISI 316
6	<b>BEARINGS</b>	<i>Pump</i>	<i>Model</i>					
		<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 220 V - 60 Hz with thermal overload protector incorporated into the winding.</p> <p><b>NGA-PRO:</b> three-phase 220/380 V - 60 Hz or 220/440 V - 60 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

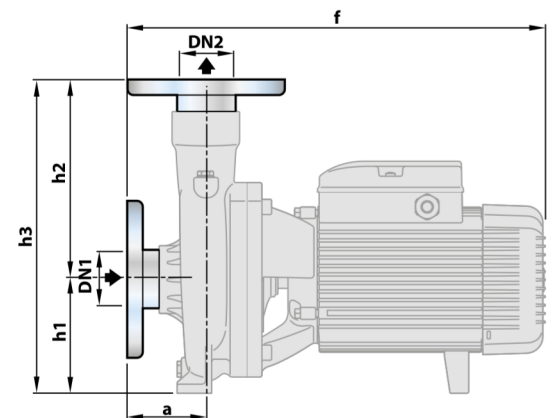


### WITH THREADED PORTS

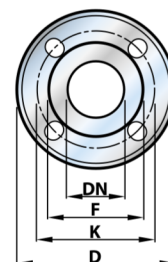
MODEL		PORTS		DIMENSIONS mm									kg	
Single-phase	Three-phase	DN1	DN2	a	f	h1	h2	h3	n1	n2	w	s	1~	3~
NGAm 1B - PRO	NGA 1B - PRO	1½"	1½"	40	299	92	135	227	190	160	6	11	12.9	12.7
NGAm 1A - PRO	NGA 1A - PRO			32									13.1	13.0
NGAm 2B - PRO	NGA 2B - PRO			32									13.2	13.0
NGAm 2A - PRO	NGA 2A - 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				
NGAm 2B - PRO	NGA 2B - PRO			52				
NGAm 2A - PRO	NGA 2A - PRO			52				
NGAm 3D - PRO	NGA 3D - PRO	50	50	70	408	120	200	320
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	
	220 V	110 V	220 V	110 V
NGAm 1B - PRO	5.3 A	10.6 A	20 µF - 450 VL	60 µF - 250 VL
NGAm 1A - PRO	6.2 A	12.4 A	20 µF - 450 VL	60 µF - 250 VL
NGAm 2B - PRO	4.3 A	8.6 A	20 µF - 450 VL	60 µF - 250 VL
NGAm 2A - PRO	4.7 A	9.4 A	20 µF - 450 VL	60 µF - 250 VL
NGAm 3D - PRO	7.0 A	14.0 A	31.5 µF - 450 VL	60 µF - 250 VL
NGAm 3C - PRO	9.5 A	19.0 A	45 µF - 450 VL	80 µF - 250 VL
NGAm 3B - PRO	11.0 A	-	50 µF - 450 VL	-
NGAm 3A - PRO	13.0 A	-	50 µF - 450 VL	-

MODEL	VOLTAGE			
	220 V	380 V	220 V	440 V
Three-phase				
NGA 1B - PRO	3.4 A	2.0 A	2.9 A	1.7 A
NGA 1A - PRO	3.9 A	2.3 A	3.4 A	1.9 A
NGA 2B - PRO	2.7 A	1.6 A	2.3 A	1.3 A
NGA 2A - PRO	3.0 A	1.7 A	2.6 A	1.5 A
NGA 3D - PRO	4.8 A	2.8 A	4.1 A	2.4 A
NGA 3C - PRO	6.0 A	3.5 A	5.2 A	3.0 A
NGA 3B - PRO	7.2 A	4.2 A	6.2 A	3.6 A
NGA 3A - PRO	8.4 A	4.9 A	7.3 A	4.2 A