NGA Cast-iron centrifugal pumps with open impeller

Domestic use

Agricultural use

Industrial use

PERFORMANCE RANGE

- Flow rate up to **900 l/min** (54 m³/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

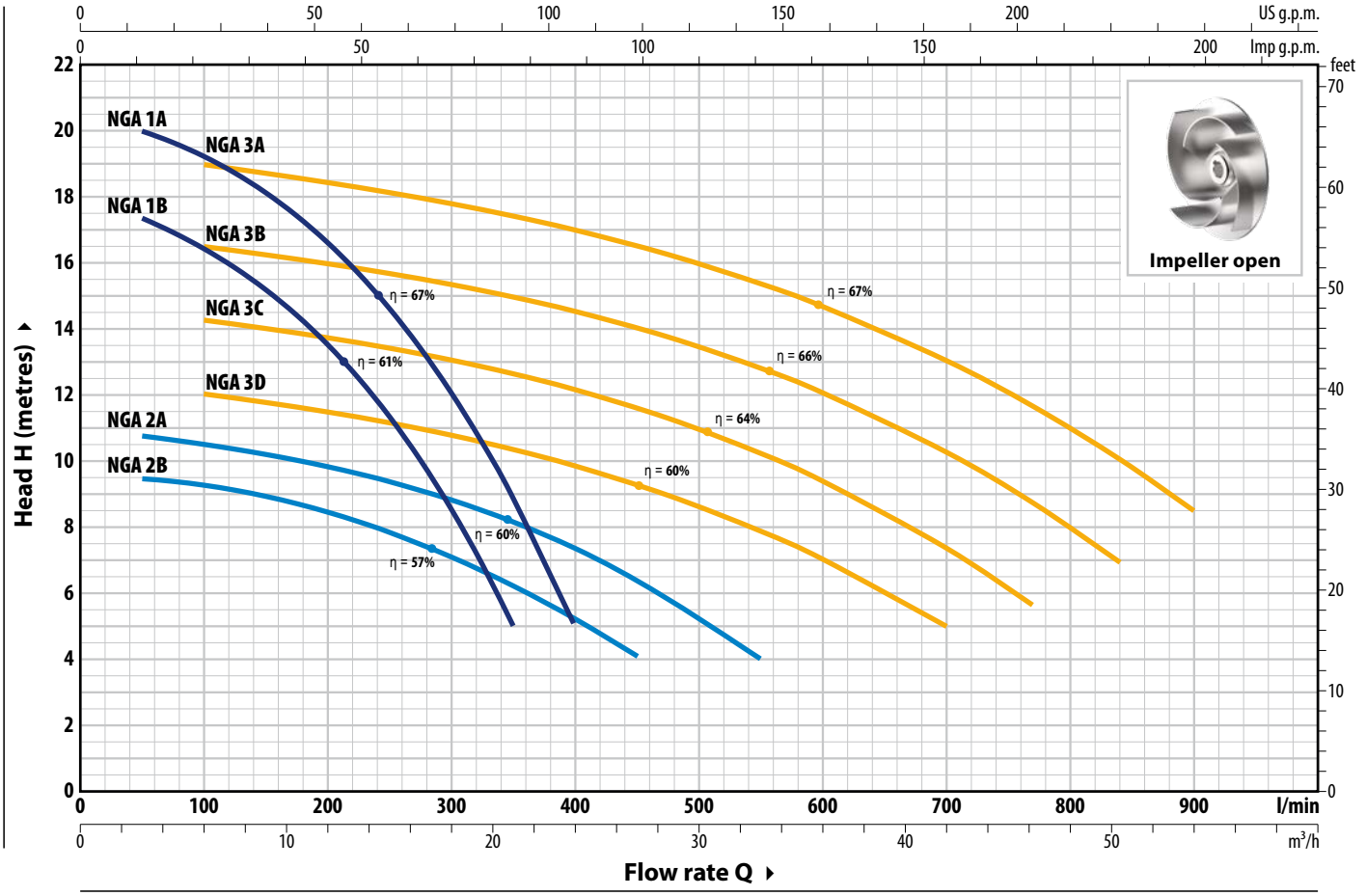
AVAILABLE UPON REQUEST

※ 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 (P2)				Q m³/h	0	3	6	9	12	15	18	21	24
Single-phase	Three-phase	kW	HP	1~	3~	Q l/min	**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 (P2)				Q m³/h	0	3	6	12	18	24	27	33	42	46	51	54
Single-phase	Three-phase	kW	HP	1~	3~	Q l/min	**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

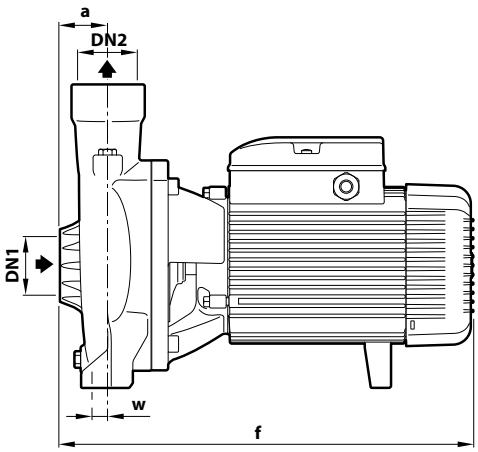
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

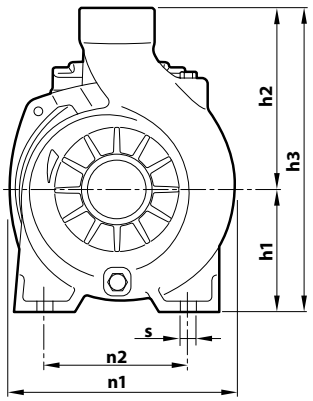
ABSORPTION

TYPE	VOLTAGE
Single-phase	**230 V**
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	
Three-phase	**230 V - Δ**	**400 V - Y**
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



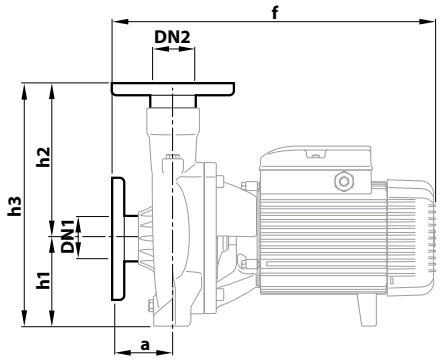


WITH THREADED PORTS

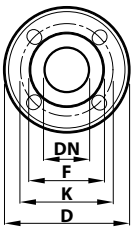
TYPE		PORTS		DIMENSIONS mm									kg	
Single-phase	**Three-phase**	**DN1**	**DN2**	a	f	h1	h2	h3	n1	n2	w	s	1~	3~
NGAm 1B	**NGA 1B**	**1½"**	**1½"**	40	299	92	135	227	190	160	6	11	12.6	12.6
NGAm 1A	**NGA 1A**												12.7	12.6
NGAm 2B	**NGA 2B**			32									12.7	12.6
NGAm 2A	**NGA 2A**												12.7	12.6
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**				407								25.4	25.5
NGAm 3A	**NGA 3A**												25.5	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**							
NGAm 2B	**NGA 2B**			52	342			
NGAm 2A	**NGA 2A**							
NGAm 3D	**NGA 3D**	**50**	**50**	70	408	120	200	320
NGAm 3C	**NGA 3C**							
NGAm 3B	**NGA 3B**				428			
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)

4 Mechanical seal

Water pump	Seal	Shaft	Materials
NGA1 NGA2	**AR-14**	Ø 14 mm	Ceramic / Graphite / NBR
NGA3	**FN-18**	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**