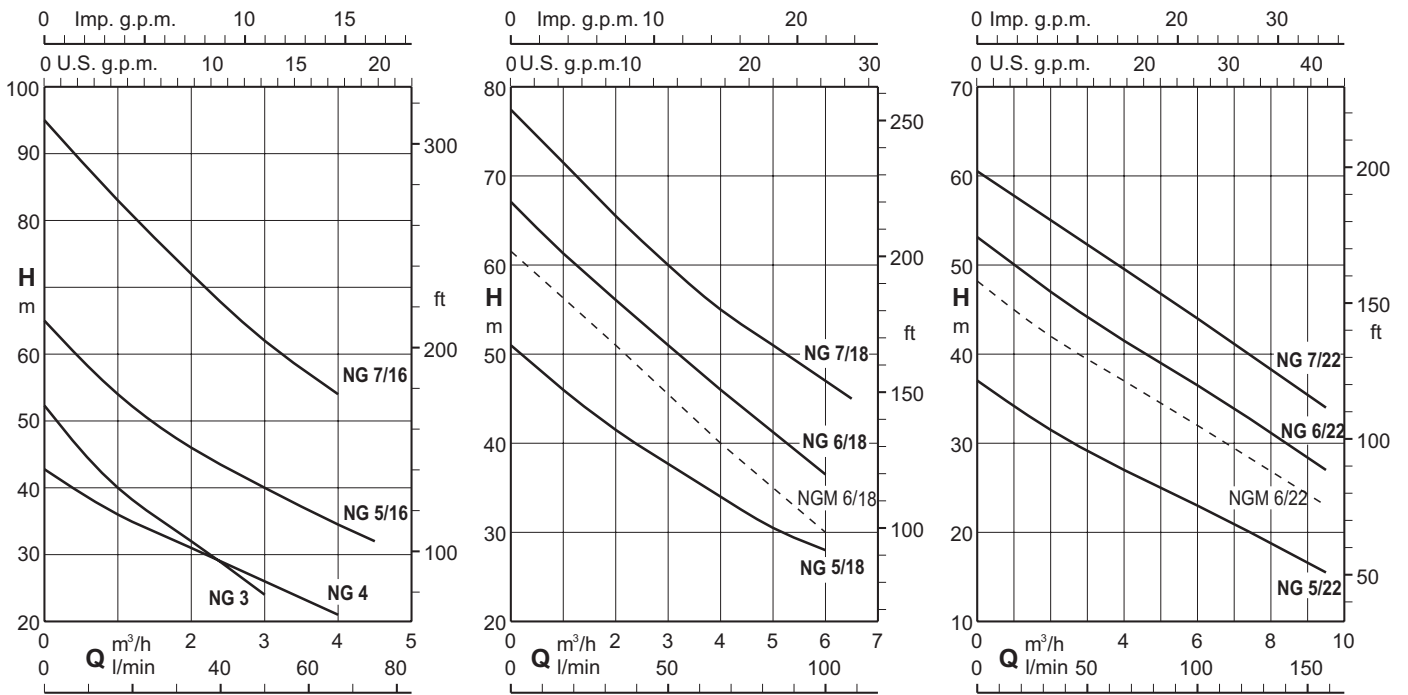


Coverage chart n ≈ 2900 rpm



## Self-priming jet pumps

### Construction

Close-coupled self-priming shallow well jet pumps with built-in ejector.  
 NG: version with pump casing and lantern bracket in cast iron.  
 BNG: version with pump body and bronze fitting.  
 The pumps are supplied fully painted.

### Applications

For drawing water out of a well.  
 For increasing network pressure (follow local specifications).  
 For clean liquids or slightly dirty surface water.  
 For garden use.  
 For washing with a jet of water.

### Operating conditions

Liquid temperature up to 40°C.  
 Ambient temperature up to 40° C.  
 Maximum permissible working pressure up to 10 bar.  
 Continuous duty (S3 60% for single-phase pump to 1,5 kW).

### Motor

2-pole induction motor, 50 Hz ( $n \approx 2900$  rpm).  
**NG:** three-phase 230/400 V  $\pm 10\%$ .  
**NGM:** single-phase 230 V  $\pm 10\%$ , with thermal protector.  
 Capacitor inside the terminal box.  
 Insulation class F.  
 Protection IP54  
**IE2 efficiency class for single-phase motors up to 1,1 kW.**  
**IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).**  
 Constructed in accordance with EN 60034-1.  
 EN 60335-1, EN 60335-2-41.

### Special features on request

Other voltages.  
 Frequency 60 Hz (as per 60 Hz data sheet).  
 Protection IP 55.  
 Special mechanical seal

### Designation

BNGM 5/16/A  
 B = Bronze version (without Cast Iron version indication)  
 NG = Series  
 M = Singlephase version (no indication: threephase)  
 5 = Progressive type number  
 16 = Diameter of Venturi body  
 /A = It refers to a revision

### Materials

Components	NG	BNG
Pump casing	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Casing cover	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Diffuser plate	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Impeller	Brass CW617N EN 12167	Brass CW617N EN 12167
Shaft	Steel 1.4104 EN 10088 (AISI 430F). NG 3-4	Steel 1.4401 EN 10088 (AISI 316)
Shaft	Steel 1.4305 EN 10088 (AISI 303). NG 5-6-7	Steel 1.4401 EN 10088 (AISI 316)
Diffuser	Noryl PPO-GF20	Noryl PPO-GF20
Nozzle	Noryl PPO-GF20	Noryl PPO-GF20
Mechanical seal	Carbon - Ceramic - NBR	Carbon - Ceramic - NBR

## Coverage chart n ≈ 2900 rpm

### Three-phase

Model		230V 400V		P2		Q = Flow																			
						m³/h	0	0,25	0,5	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5	7	8	9	9,5
						l/min	4,16	8,33	16,6	25	33,3	41,6	50	58,3	66,6	75	83,3	91,6	100	108	117	133	150	158	
		A	kW	HP	H (m) = Total head																				
BNG	NG 3/A	3	1,7	0,55	0,75	52,1	49	45,5	40	36	32	28	24	-	-	-	-	-	-	-	-	-	-	-	-
BNG	NG 4/B	3,7	2,2	0,75	1	45,8	41	39	36	33	31	29	26	24	21	-	-	-	-	-	-	-	-	-	-
BNG	NG 5/18/A	4,6	2,7	1,1	1,5	64	-	59	54	50	46	43	40	37	34,5	32	-	-	-	-	-	-	-	-	-
BNG	NG 5/18/A	4,6	2,7	1,1	1,5	53	-	48,5	46	43,5	41,5	39,5	38	35,5	34	32	30,5	29	28	-	-	-	-	-	-
BNG	NG 5/22/A	4,6	2,7	1,1	1,5	36,5	-	35,5	34,5	33	31,5	30,5	29,5	28	27	26	25	23,5	23	21,5	20,5	18,5	16,5	15,5	
BNG	NG 6/18/A	7,5	4,3	1,5	2	67,3	-	64,5	62	59	56	54	51	48,5	46	43,5	41,5	39	36,5	-	-	-	-	-	-
BNG	NG 6/22/A	7,5	4,3	1,5	2	53	-	51,5	50	48,5	47	46	44,5	43	41,5	40	39	37,5	36,5	35	33,5	31	28,5	27	
BNG	NG 7/16/B	9,2	5,3	2,2	3	95	-	89	83	77	72	67	62	58	54	-	-	-	-	-	-	-	-	-	-
BNG	NG 7/18/B	9,2	5,3	2,2	3	77	-	74,5	71,5	68,5	65,5	63	60	57,5	55	53	51	49	47	45	-	-	-	-	-
BNG	NG 7/22/B	9,2	5,3	2,2	3	60	-	59	57,5	56,5	55	54	52,5	51	50	48,5	47	45,5	44	42,5	41,5	38	35	34	

### Single-phase

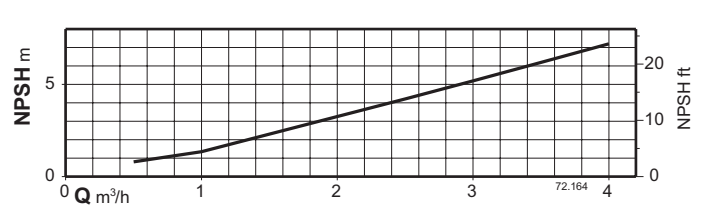
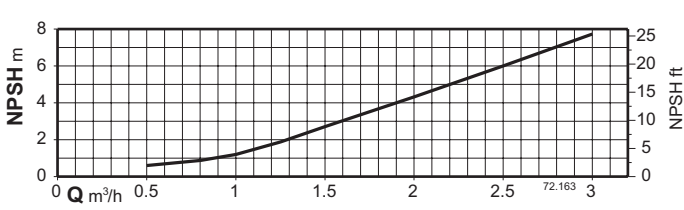
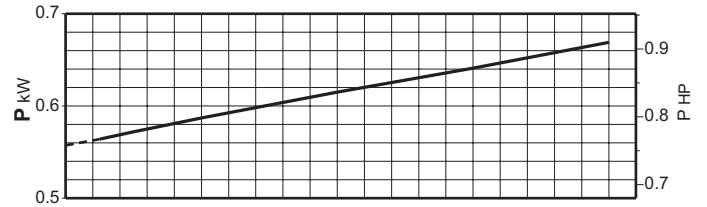
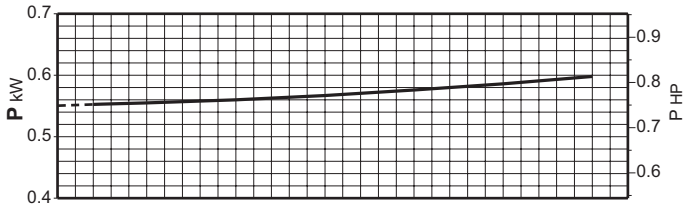
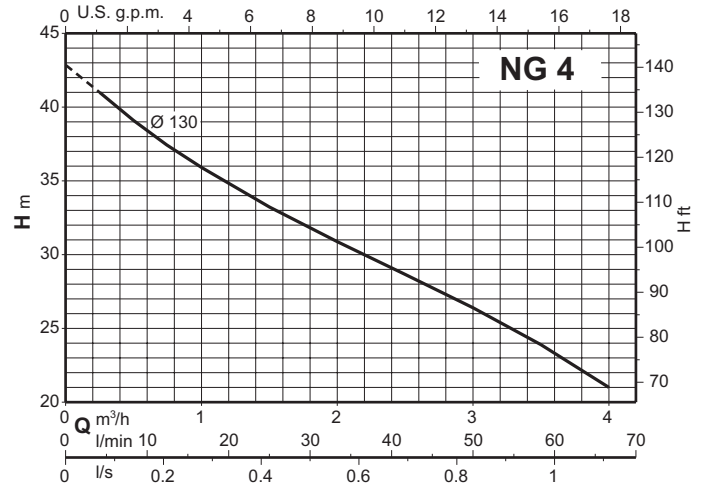
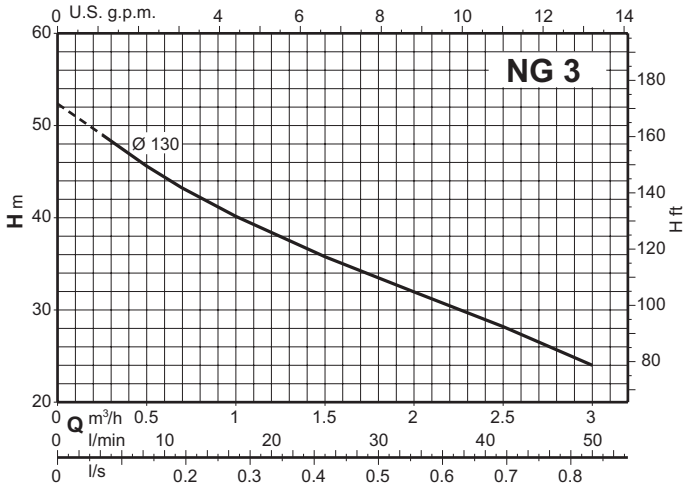
Model		230V		P2		P1		Q = Flow																		
								m³/h	0	0,25	0,5	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5	7	8	9
								l/min	4,16	8,33	16,6	25	33,3	41,6	50	58,3	66,6	75	83,3	91,6	100	108	117	133	150	158
		A	kW	HP	kW	H (m) = Total head																				
BNGM	NGM 3/A	4,5	0,55	0,75	0,78	52,1	49	45,5	40	36	32	28	24	-	-	-	-	-	-	-	-	-	-	-	-	-
BNGM	NGM 4/A	5,7	0,75	1	1,01	45,8	41	39	36	33	31	29	26	24	21	-	-	-	-	-	-	-	-	-	-	-
BNGM	NGM 5/16E	7,4	1,1	1,5	1,44	64	-	59	54	50	46	43	40	37	34,5	32	-	-	-	-	-	-	-	-	-	-
BNGM	NGM 5/18E	7,4	1,1	1,5	1,44	53	-	48,5	46	43,5	41,5	39,5	38	35,5	34	32	30,5	29	28	-	-	-	-	-	-	-
BNGM	NGM 5/22E	7,4	1,1	1,5	1,44	36,5	-	35,5	34,5	33	31,5	30,5	29,5	28	27	26	25	23,5	23	21,5	20,5	18,5	16,5	15,5		
BNGM	NGM 6/18E	9,2	1,5	2	2	61,8	-	59	57	54	51	48	45	43	40	37,5	35	33	30	-	-	-	-	-	-	
BNGM	NGM 6/22E	9,2	1,5	2	2	48,5	-	47	45	43,5	42	41	40	38	37	36	35	33	32	31	30	27	24	23		

**P1:** Maximum power input.

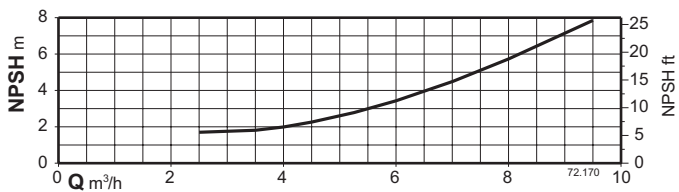
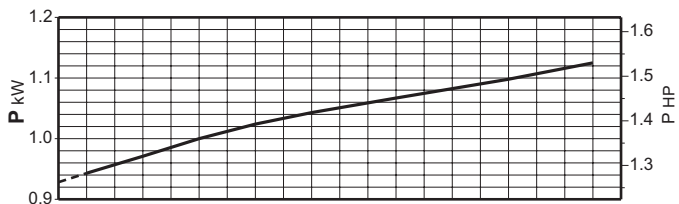
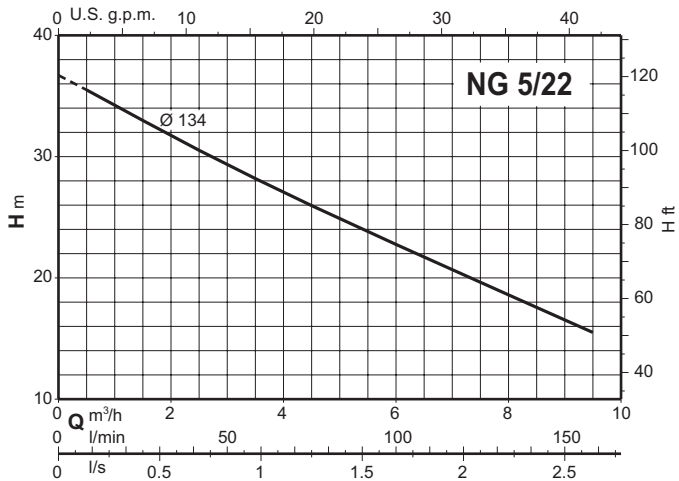
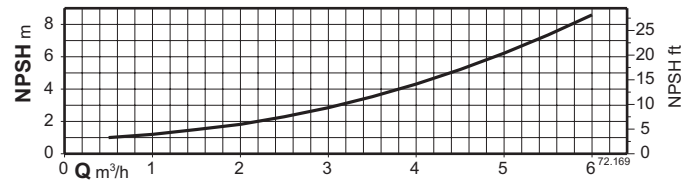
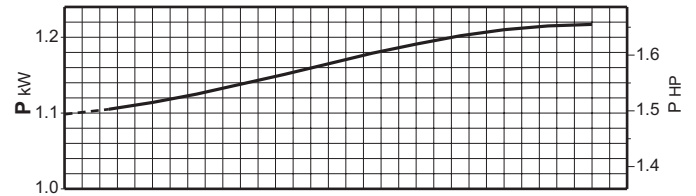
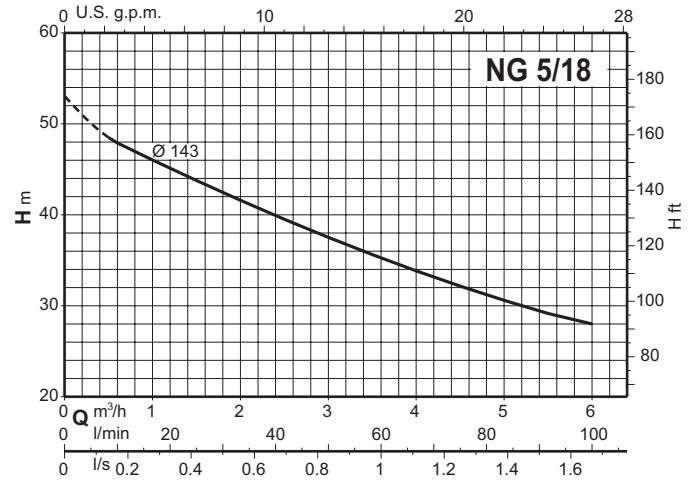
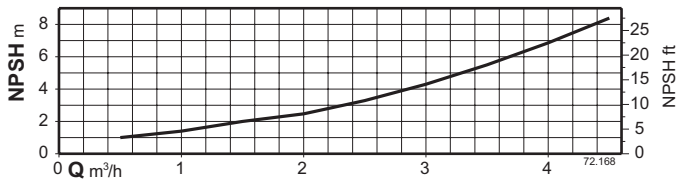
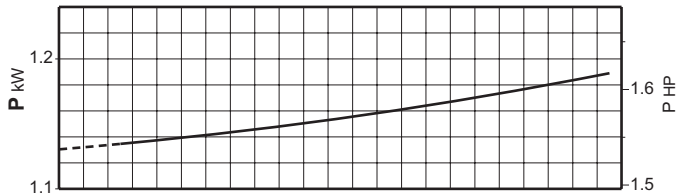
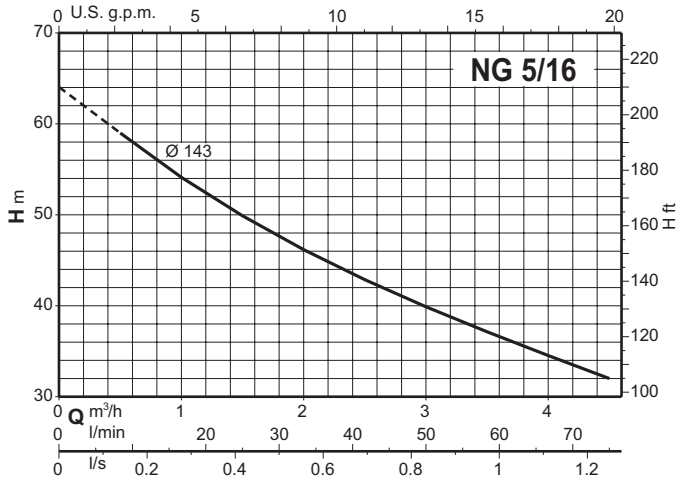
**P2:** Rated motor power output.

Tolerances according to UNI EN ISO 9906:2012

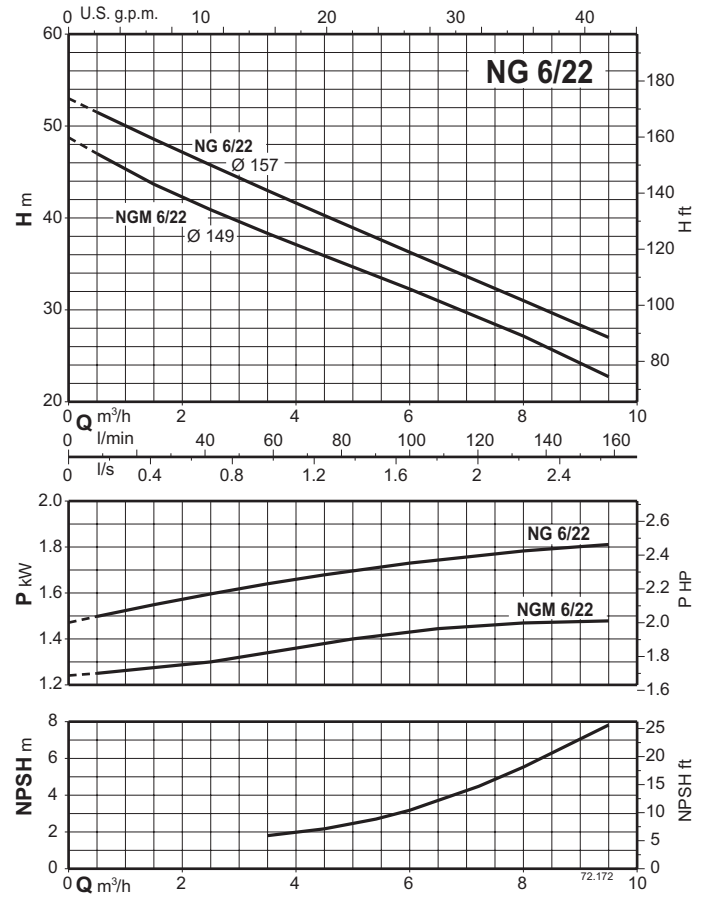
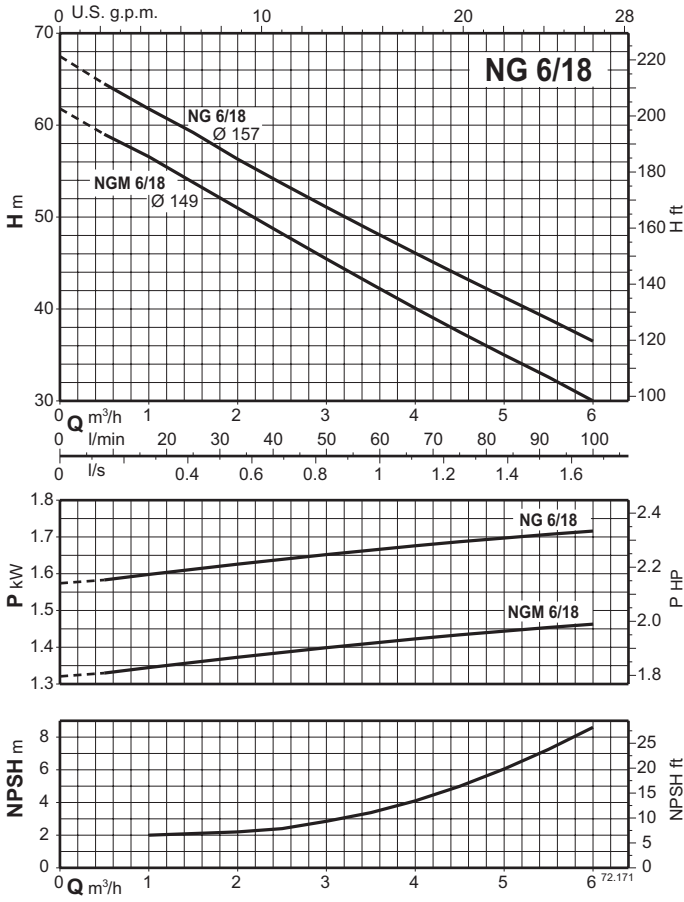
## Characteristic curves $n \approx 2900$ rpm



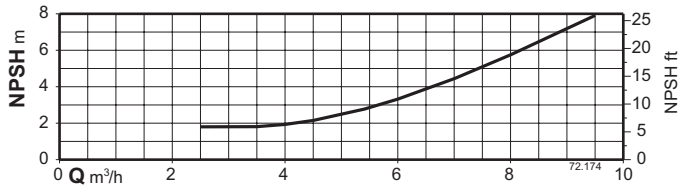
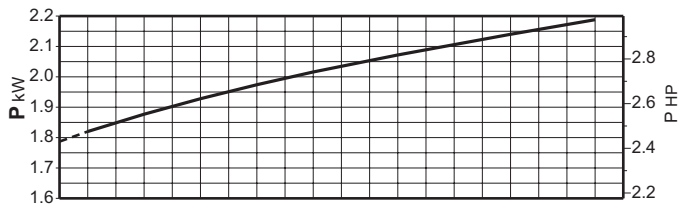
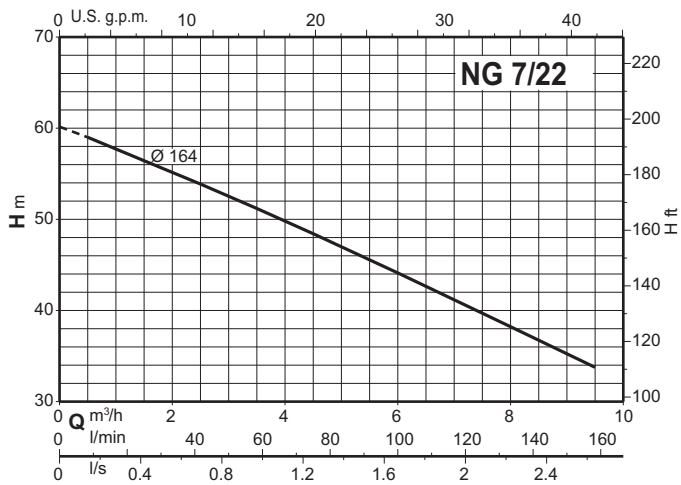
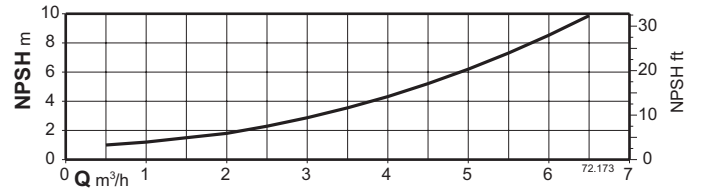
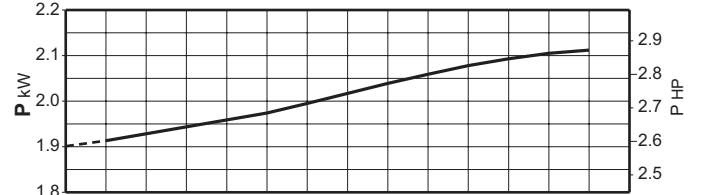
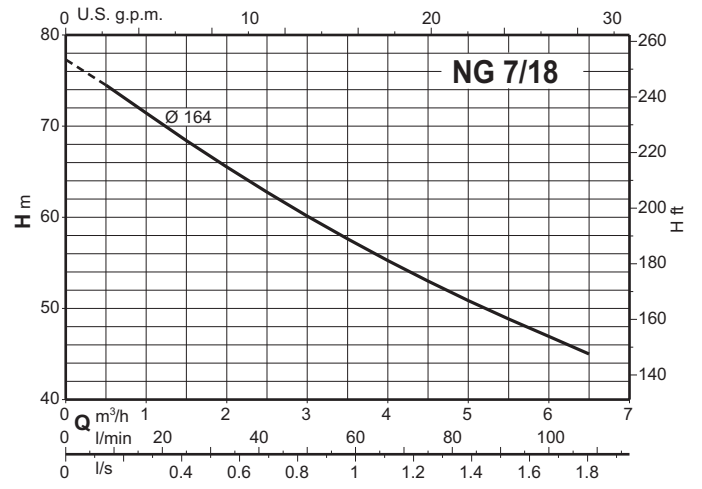
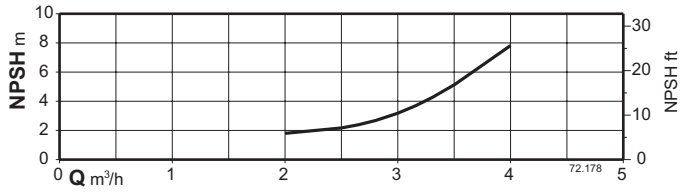
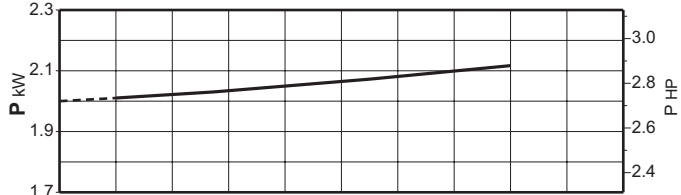
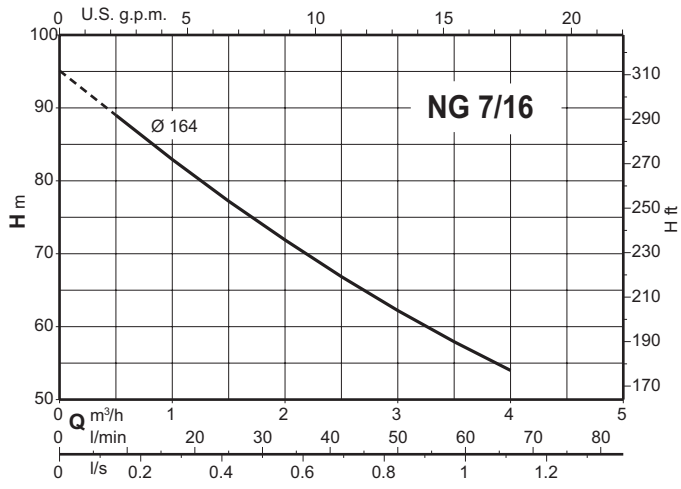
## Characteristic curves $n \approx 2900$ rpm



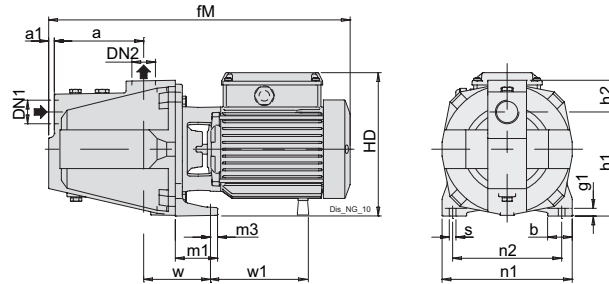
## Characteristic curves $n \approx 2900$ rpm



## Characteristic curves $n \approx 2900$ rpm



## Dimensions and weights



TYPE	ISO 228		mm															kg Weight
	DN1	DN2	a	a1	b	fM	g1	h1	h2	HD	m1	m3	n1	n2	s	w	w1	
NG 3/A	G 1	G 1	127	8	35	430	11	150	43	207	60	8	185	155	9.5	100	-	17.3
NG 4/B	G 1	G 1	127	8	35	430	11	150	43	207	60	8	185	155	9.5	100	-	19.3
NG 5/16/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	28.1
NG 5/18/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	28.1
NG 5/22/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	28.1
NG 6/18/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	29.7
NG 6/22/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	29.7
NG 7/16/B	G 1 1/2	G 1	160	10	40	600	11	165	57	240	60	10	215	175	11.5	115	233	32.9
NG 7/18/B	G 1 1/2	G 1	160	10	40	600	11	165	57	240	60	10	215	175	11.5	115	233	32.9
NG 7/22/B	G 1 1/2	G 1	160	10	40	600	11	165	57	240	60	10	215	175	11.5	115	233	32.9

TYPE	ISO 228		mm															kg Weight
	DN1	DN2	a	a1	b	fM	g1	h1	h2	HD	m1	m3	n1	n2	s	w	w1	
NGM 3/A	G 1	G 1	127	8	35	430	11	150	43	207	60	8	185	155	9.5	100	-	18.5
NGM 4/A	G 1	G 1	127	8	35	430	11	150	43	207	60	8	185	155	9.5	100	-	19.4
NGM 5/16E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	29.6
NGM 5/18E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	29.7
NGM 5/22E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	29.3
NGM 6/18E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	29.6
NGM 6/22E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	29.6

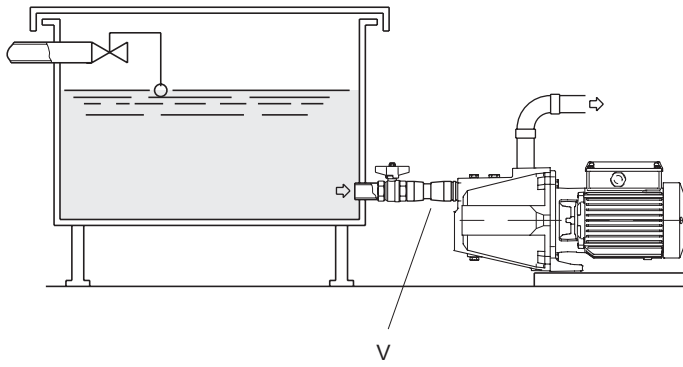
TYPE	ISO 228		mm															kg Weight
	DN1	DN2	a	a1	b	fM	g1	h1	h2	HD	m1	m3	n1	n2	s	w	w1	
BNG 3/A	G 1	G 1	127	8	35	430	11	150	43	207	60	8	185	155	9.5	100	-	20.6
BNG 4/B	G 1	G 1	127	8	35	430	11	150	43	207	60	8	185	155	9.5	100	-	22.3
BNG 5/16/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	32.1
BNG 5/18/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	32.1
BNG 5/22/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	32.1
BNG 6/18/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	33.4
BNG 6/22/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	33.4
BNG 7/16/B	G 1 1/2	G 1	160	10	40	600	11	165	57	240	60	10	215	175	11.5	115	233	36.6
BNG 7/18/B	G 1 1/2	G 1	160	10	40	600	11	165	57	240	60	10	215	175	11.5	115	233	36.6
BNG 7/22/B	G 1 1/2	G 1	160	10	40	600	11	165	57	240	60	10	215	175	11.5	115	233	36.6

TYPE	ISO 228		mm															kg Weight
	DN1	DN2	a	a1	b	fM	g1	h1	h2	HD	m1	m3	n1	n2	s	w	w1	
BNGM 3/A	G 1	G 1	127	8	35	430	11	150	43	207	60	8	185	155	9.5	100	-	21.6
BNGM 4/A	G 1	G 1	127	8	35	430	11	150	43	207	60	8	185	155	9.5	100	-	22.4
BNGM 5/16E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	34
BNGM 5/18E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	34
BNGM 5/22E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	34
BNGM 6/18E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	34
BNGM 6/22E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	34

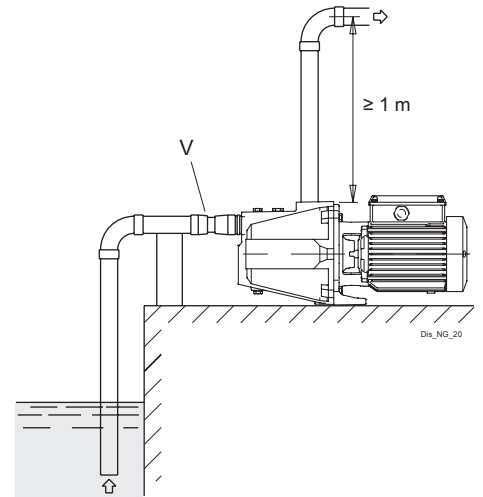


## Examples of installations

Positive suction head operation



Operation with suction lift



Check valve