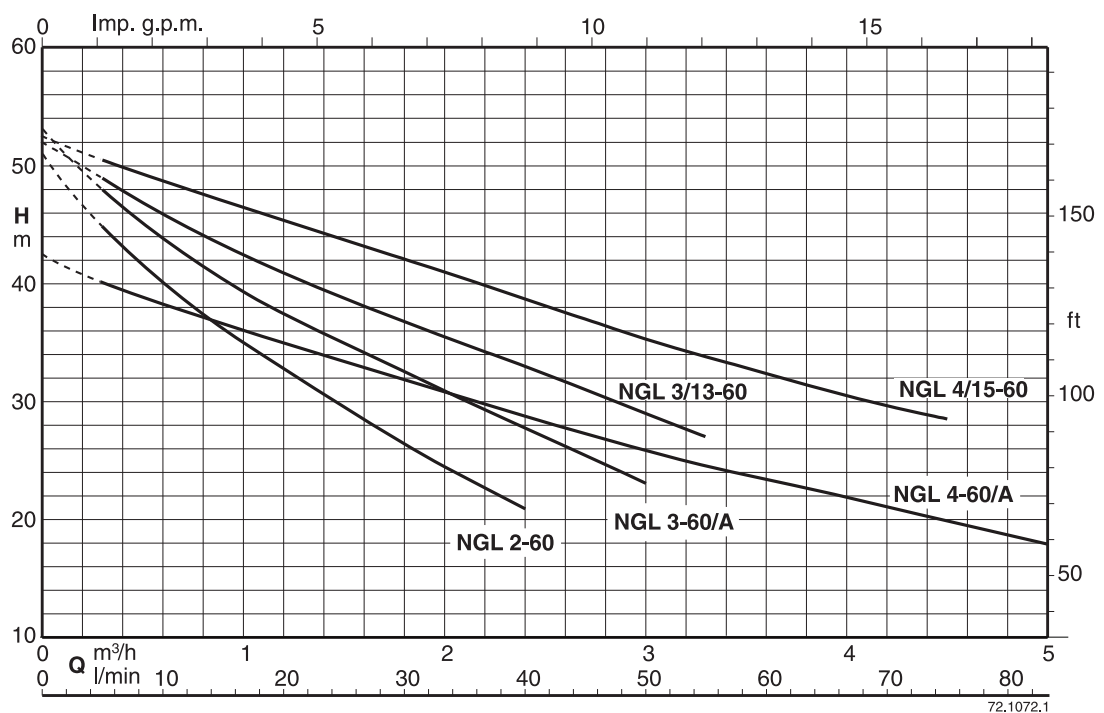


Self-Priming Jet Pumps 自吸噴射式泵浦



Coverage chart - 性能總表

n ≈ 3450 rpm



Construction

Close-coupled self-priming shallow-well jet pump with built-in ejector.
Connections: threaded ports **ISO 228/1**.
 threaded ports **NPT** (ANSI/ASME B1.20.1) on request

Applications

For drawing water out of a well.
 For lifting water containing air or other gases.
 For increasing water pressure from flooded suction applications.
 As pressure boosting pump for central water systems with low pressure (follow local specifications if increasing network pressure).
 For garden use.
 For washing with a jet of water.

Operating conditions

Liquid temperature: 0 °C to +35 °C.
 Ambient temperature up to +40 °C.
 Maximum permissible pressure in the pump casing: 8 bar.
 Continuous duty.

Motor

2-pole induction motor, 60 Hz (n ≈ 3450 rpm).
NGL: three-phase 220/380 V, 220/440 V.
NGLM: single-phase 110 V, 127 V, 220 V, 110/220 V.
 with thermal protector up to 1.1 kW only 220V.
 Capacitor inside the terminal box.
 Insulation class F.
 Protection IP 54.
Classification scheme IE2 for three-phase motors from 0,75 kW.
 Constructed in accordance with: EN 60034-1; EN 60034-30.
 EN 60335-1, EN 60335-2-41.

Special features on request

- Other voltages.

Materials

Component	Material
Pump casing	Cast iron GJL 200 EN 1561
Casing cover	Cr-Ni steel 1.4301 EN 10088 (AISI 304)
Impeller	Brass P-Cu Zn 40 Pb 2 UNI 5705
Wear ring impeller-diffuser	Cr-Ni steel 1.4301 EN 10088 (AISI 304)
Diffuser	PPO-GF20 (Noryl)
Ejector	PPO-GF20 (Noryl)
Shaft	Chrome steel 1.4104 EN 10088 (AISI 430)
Mechanical seal	Carbon - Ceramic - NBR

結構

直結自吸淺井用噴射式泵浦，內建噴射器。
 接口：牙口 **ISO 228/1**
 牙口 **NPT**(ANSI/ASME B2.20.1)依需求提供。

應用

- 井水抽水應用
 - 含有空氣或其他氣體之液體輸送
 - 供水系統之加壓應用(按照當地規範)
 - 庭園園藝之應用
 - 噴射水柱清洗之應用

操作條件

液體溫度最高0至+40 °C
 周圍溫度最高至40°C
 泵浦本體可承受最大壓力值：8 bar
 連續運轉

馬達

2極感應電動馬達，60Hz(n=3450 rpm)
NGL: 三相220/380V，220/440V
NGLM: 單相110V, 127V, 220V, 110/220V
 1.1kW以下僅有220V配置過熱保護器。
 接線盒內有電容器。
 絕緣等級：F
 保護等級：IP54
 0.75kW以下使用歐盟效能指標高效率IE2三相馬達。
 結構設計符合： EN 60034-1; EN 60034-30;
 EN 60335-1; EN 60335-2-41之規範。

可依需求客製

- 其他電壓值

材質

零件	材質
泵浦外殼	鑄鐵 GJL 200 EN 1561
泵浦後蓋	不鏽鋼 1.4301 EN 10088 (AISI 304)
葉片	黃銅 P-Cu Zn 40 Pb 2 UNI 5705
磨損還葉片-擴散器	不鏽鋼 1.4301 EN 10088 (AISI 304)
擴散器	PPO-GF20 (Noryl) 工程塑料
噴射器	PPO-GF20 (Noryl) 工程塑料
軸心	不鏽鋼 1.4104 EN 10088 (AISI 430)
機械軸封	碳精 - 陶瓷 - NBR

Performance - 性能

$n \approx 3450 \text{ rpm}$

3~	1~	P ₂			Q m ³ /h l/min	0	0,3	1	2	2,4	3	3,3	4	4,5	5
		kW	kW	HP		0	5	16,6	33,3	40	50	55	66,6	75	83,3
NGL 2-60	NGLM 2-60	0,8	0,45	0,6	H m	51	45	35	24,5	21					
NGL 3-60/A	NGLM 3-60/A	0,95	0,55	0,75		53	48	39,5	31	28	22				
NGL 3/13-60	NGLM 3/13-60	1,1	0,75	1		52	49	42,5	35,5	33	29	27			
NGL 4-60/A	NGLM 4-60/A	1,1	0,75	1		42,5	40	36	31	29	26	24,7	22	20	18
NGL 4/15-60	NGLM 4/15-60	1,5	0,9	1,2		52,5	50,5	46,5	41	38,5	35,5	33,8	30,5	28,5	

P₂ Rated motor power output.
馬達額定輸出功率。

H Total head in m.
總揚程(單位m)

Tolerances according to UNI EN ISO 9906:2012.
水量誤差值依據UNI EN ISO 9906:2012之標準。

Rated currents - 額定電流

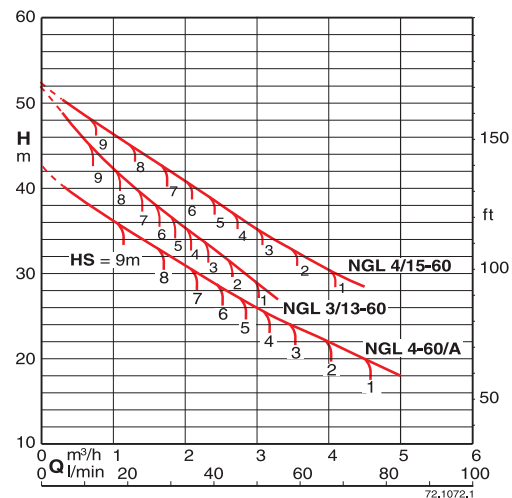
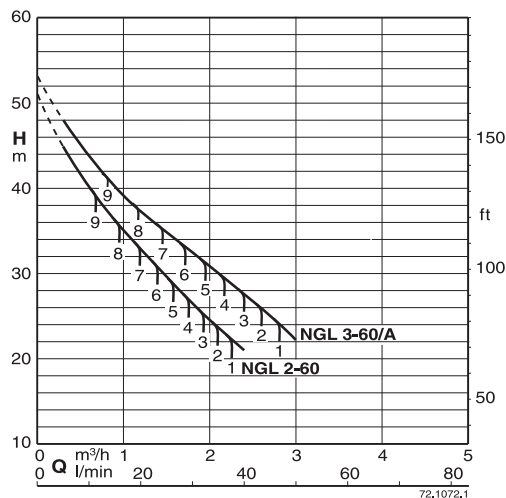
P ₂		single-phase - 單相 1~					
kW	HP	220V IN A	127V IN A	110V IN A	110/220V IN A	IA/IN	
0,45	0,6	4,1	7,1	8,2	-	2,7	
0,55	0,75	5	8,7	10	9.2/4.7	3,3	
0,75	1	6,2	10,7	12,4	12.5/6.4	3,2	
0,9	1,2	7	12,1	14	12.5/6.4	3,3	

P ₂		three-phase - 三相 3~		
kW	HP	220/380V IN A	220/440V IN A	IA/IN
0,45	0,6	3,5/2	3,6/2,1	4,8
0,55	0,75	3,3/1,9	3,5/2	4,3
0,75	1	4,5/2,6	4,7/2,7	6,8
0,9	1,2	5,4/3,1	5,6/3,3	4,1

P₂ Rated motor power output.
馬達額定輸出功率。

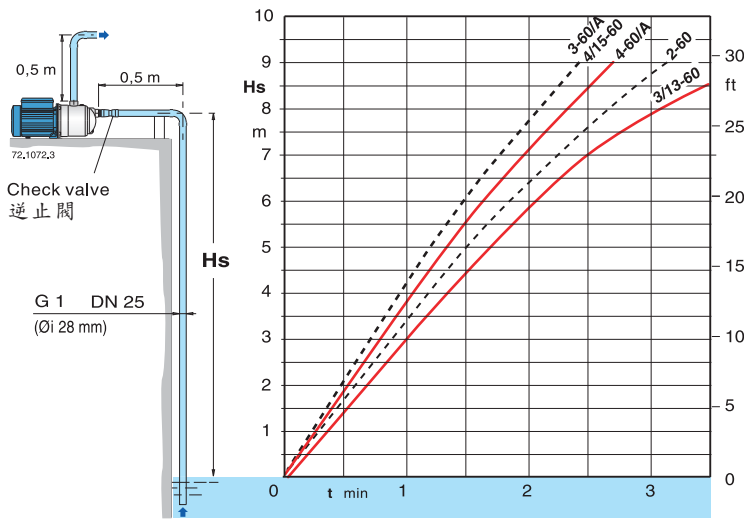
IA/IN D.O.L. starting current / Rated current
啟動電流 / 額定電流。

Characteristic Curves for different suction lifts H_s - 性能曲線 - 吸入揚高H_s



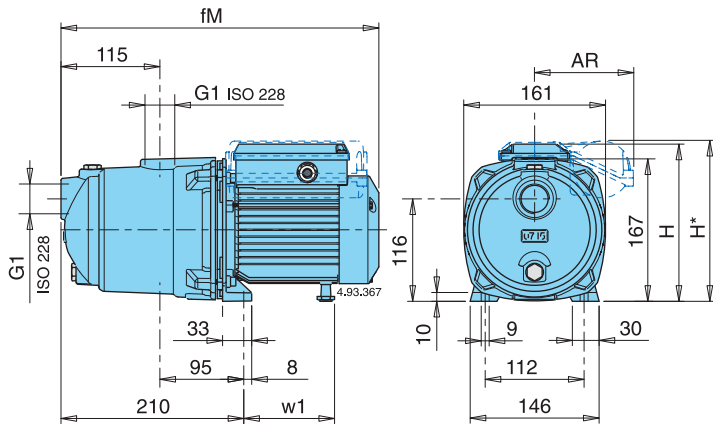
Self-priming capability - 自吸能力

60 Hz ($n \approx 3450 \text{ 1/min}$), H₂O, T = 20°C, P_a = 1000 hPa (mbar)



H_s (m) Suction lift - 吸入揚高
t (min) Self-priming time - 自吸時間

Dimensions and weights - 尺寸及重量

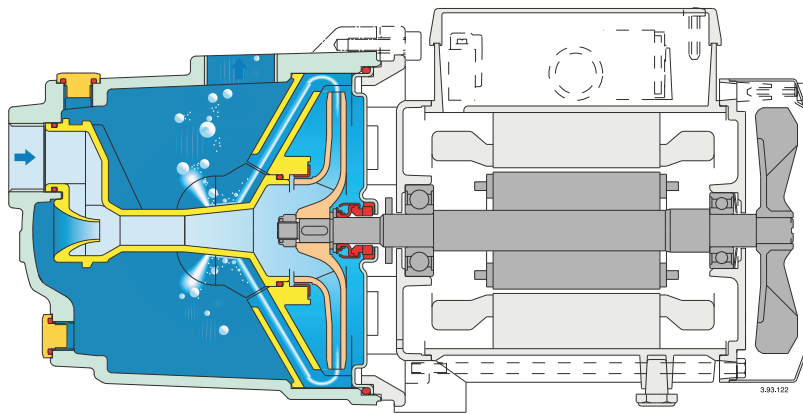


TYPE 型號	DN NPT	Dimensions - mm								Net weight kg	
		fM	H	w1	H*	AR				NGL	NGLM
NGL 2-60	✓	362	176	102	-	●	●	●	●	10,5	10,5
NGL 3-60/A	✓	391	192	112	197	●	●	●	116	11,7	12,6
NGL 3/13-60	✓	391	192	112	197	●	116	116	131	12,6	13,6
NGL 4-60/A	✓	391	192	112	197	●	116	116	131	12,6	13,6
NGL 4/15-60	✓	391	192	112	197	●	116	116	131	13,5	14,5

✓ NPT Version on demand
NPT 依需求提供

● Standard dimensions
標準尺寸

Features - 特色



* Patented
專利

A different jet pump with new features

Not just another jet pump.
An exclusive diffuser design with flow control device* provides for compact construction, fast self-priming capability and low noise.

Reliable

With new design features the NGL is more robust and forgiving when temporary abnormal operating conditions may exist.

Compact

The NGL is smaller than conventional pumps of a similar type, allowing for installation in restricted spaces and providing for easier retrofit applications.

Safe

Fast air evacuation reduces the risk of air-pockets developing at the mechanical seal preventing the danger of seal failure due to a lack of flushing and cooling.

Better self-priming

The NGL are capable of lifting water from depths of 9 m in less than 3,5 minutes, offers new possibilities on suction lift applications and provides better trouble free service on normal shallow-well suction lift duties, also with a long suction pipe above the water level.

Low noise

The new diffuser and flow control device* guide the fluid from the impeller into the central part of the pump casing, reducing turbulence and velocity, with effective use of the surrounding liquid in dampening the noise of flow.

新型結構之噴射泵浦

專利設計、流量控制之擴散器，結構簡潔，自吸能力快且低噪音。

可靠

新款設計之NGL更加耐用，且可避免短暫性異常操作狀態。

簡潔

NGL與傳統相同類型泵浦相較之下，體積較小，更容易在狹小空間裡進行安裝。

安全性

快速排出氣體，減少機械軸封的氣穴產生，且防止因於沖洗及冷卻不足，而導致軸封損壞。

自吸能力升級

NGL泵浦可在3-5分內達到自吸揚高9m，提供負壓吸入更多應用，如淺井負壓吸入應用及負壓操作離水源太遠之應用。

低噪音

新型擴散器及流量控制器設備使液體從葉片導流至泵浦中心，減少亂流及速度，且有效利用周圍流動液體，可使減少噪音產生。