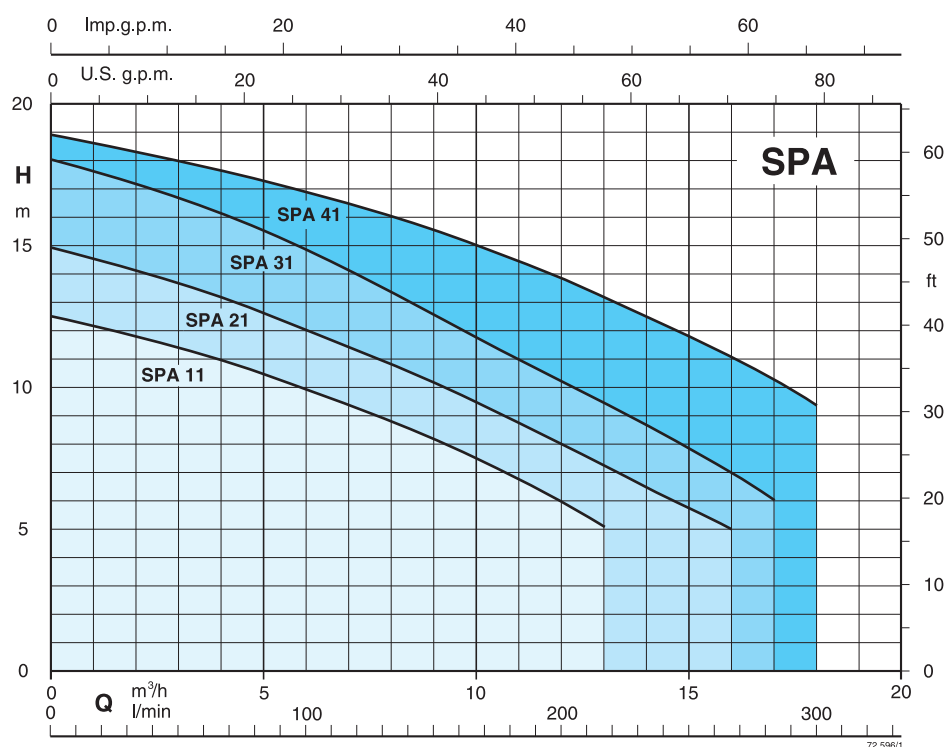


Self-Draining Whirlpool Pumps
直結自吸離心式泵浦



Coverage chart - 性能總表

n ≈ 3450 rpm



SPA 60 Hz

Compact SPA 小型泳池專用



Construction

Self-draining, single-impeller pumps, with motor insulated from pumped water, constructed with high quality, corrosion-proof plastic materials, with chrome-nickel stainless steel diffuser. Compact design (158 mm wide).

PVC pipe connections:

Ports for cementing joint, with external thread for union coupling.

Applications

For spas, hydromassage bathtubs and whirlpool baths.

Operating conditions

Water temperature up to 60 °C.

Room temperature up to 40 °C.

Maximum permissible pressure in the pump casing: 2.5 bar.

Continuous duty.

Motor

2-pole induction motor, 60 Hz (n = 3450 rpm).

SPA: three-phase 220/380 V, 220/440 V.

SPAM: 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 X5.

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.

Patents: EP 0 460 597
US 5 226 790

結構

自排式，單段葉片泵浦，馬達與流體隔離，以高品質防鏽蝕之塑膠材質構成，導流器為不銹鋼材質。

簡潔設計(寬為158mm)

PVC管連接：

使用接著劑接合，附帶鎖牙式連接套管。

應用

適用於SPA、按摩浴缸及水療泳池之應用。

操作條件

水溫：60°C 以下

室溫：40°C 以下

泵浦本體可承受最大壓力值：2.5bar

連續運轉

馬達

2極感應電動馬達，60Hz(n=3450 rpm)

SPA： 三相220/380V，220/440V

SPAM： 單相110V, 127V, 220V, 110/220V

只有220V配有1.1kW以下過熱保護器。

接線盒內有電容器。

絕緣等級：F

保護等級：IP X5

三相馬達0.75kW至5.5kW使用歐盟效能指標高效率IE2，7.5kW以上使用IE3。

結構設計符合EN 60034-1; EN 60034-30;
EN 60335-1; EN 60335-2-41之規範。

專利編號： EP 0 460 597
US 5 226 790

Materials

Component	Material
Pump casing Union coupling	ABS (Acrylonitrile-Butadiene-Styrene)
Diffuser cover Impeller	Glass reinforced thermoplastic: PPO-GF30, NORYL*
Diffuser-wall with wear-ring	Cr-Ni-Mo stainless steel 1.4401 EN 10088 (AISI 316)
Mechanical seal	Ceramic alumina, Carbon, FPM

* Trademark of General Electric

材質

零件	材質
泵浦外殼 管路接合	ABS 塑膠
導流底座 葉片	強化玻璃 熱塑性塑膠 PPO-GF30, NORYL*
導流底壁 (含磨損環)	不鏽鋼 1.4401 EN 10088 (AISI 316)
機械軸封	陶瓷 - 碳精 - FPM

* Trademark of General Electric

Rated currents - 性能

3 ~	1 ~	P ₂		Q m ³ /h	0	3	6	9	12	13	16	17	18
					0	50	100	150	200	216	266	283	300
SPA 11-60	SPAM 11-60	0,45	0,6	H m	12,5	11	10	8	6	5			
SPA 21-60/A	SPAM 21-60/A	0,55	0,75		15	13	12	10	8	7	5		
SPA 31-60/A	SPAM 31-60/A	0,75	1		18	16,5	15	12,5	10	9	7	6	
SPA 41-60	SPAM 41-60	1,1	1,5		19	18	17	15,5	14	13,5	11	10,5	9,5

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ISO 9906:2012之標準。

Rated currents - 額定電流

P ₂		single-phase - 單相					I _A /I _N
kW	HP	220V I _N A	127V I _N A	110V I _N A	110/220V I _N A		
0,45	0,6	4,1	7,1	8,2	-		3
0,55	0,75	5,2	9	10,4	9,2/4,7		3,1
0,75	1	6,9	12	13,8	12,5/6,4		2,9
1,1	1,5	8,5	14,7	17	-		3

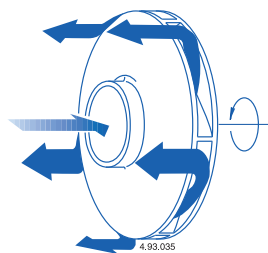
P ₂		three-phase - 三相			I _A /I _N
kW	HP	220/380V I _N A	220/440V I _N A		
0,45	0,6	3,1/1,8	3,3/1,9		4,8
0,55	0,75	3,6/2,1	3,8/2,2		3,7
0,75	1	4,5/2,6	4,7/2,7		6,8
1,1	1,5	5,7/3,3	6,0/3,5		5,5

P₂ Rated motor power output. - 馬達額定輸出功率
I_A/I_N D.O.L. starting current / Rated current - 啟動電流 / 額定電流

Features - 特色

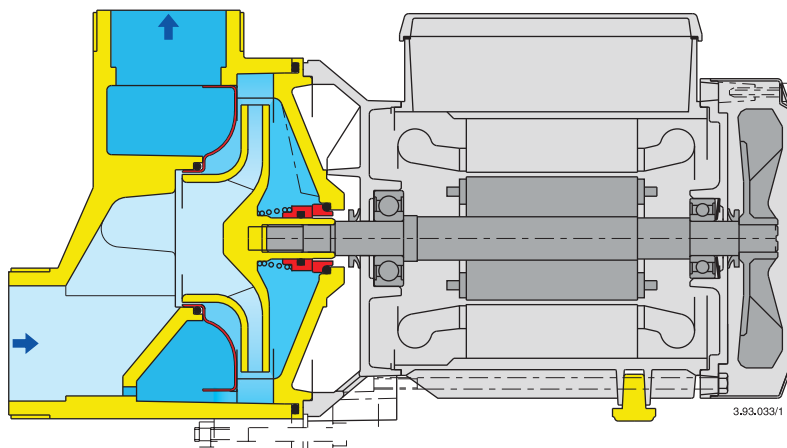
Diffuser with peripheral-longitudinal flow, of stainless steel for **extra reliability**.

不銹鋼材質的導流器，增加可靠性。

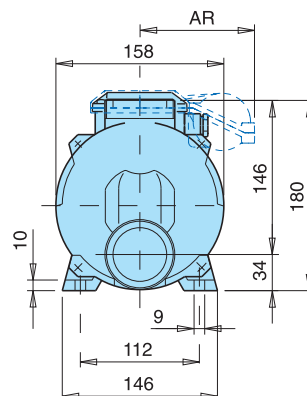
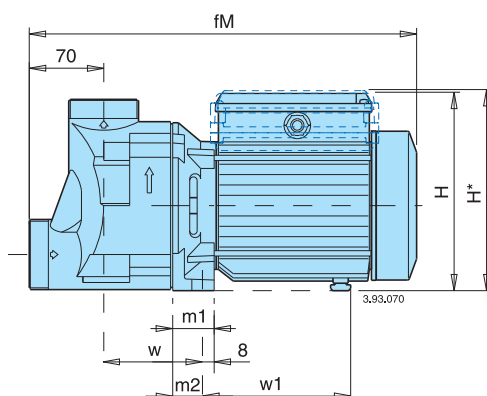


Mechanical seal without contact with the shaft, for **extra safety**.

機械軸封不與軸心接觸，增加安全性。



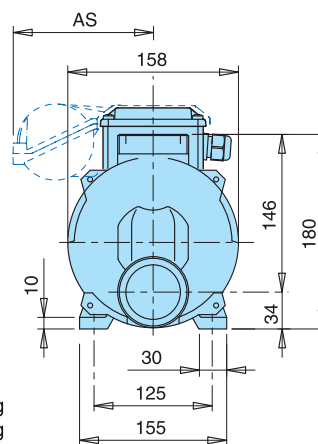
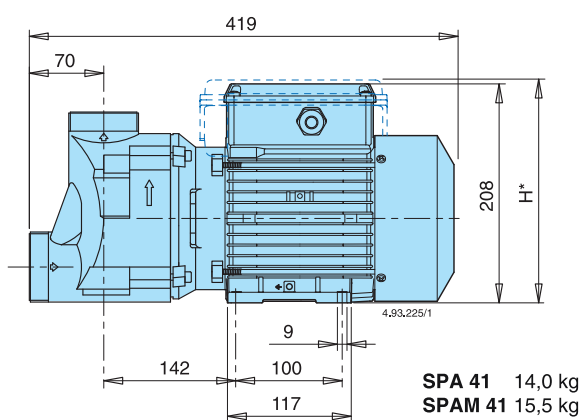
Dimensions and weights - 尺寸及重量



TYPE 型號	mm						kg	
	fM	H	m1	m2	w1	w	SPA	SPAM
SPA 11-60 - SPAM 11-60	339	176	34	26	122	97	6,7	6,8
SPA 21-60/A - SPAM 21-60/A	371	191	39	31	136	102	8	9
SPA 31-60/A - SPAM 31-60/A	371	191	39	31	136	102	9	10

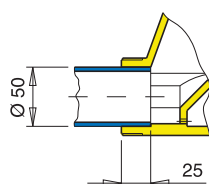
TYPE 型號	H*	AR mm			
		220V	127V	110V	110/220V
SPAM 11-60	-	●	●	●	●
SPAM 21-60/A	196	●	●	●	116
SPAM 31-60/A	196	●	116	116	131

● Standard dimensions - 標準尺寸
□ Cannot constructed - 未供應

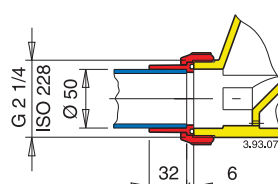


TYPE 型號	H*	AS mm			
		220V	127V	110V	110/220V
SPAM 41-60/A	213	●	131	131	□

● Standard dimensions - 標準尺寸
□ Cannot constructed - 未供應



Cemented joint.
接著劑接合



Threaded union coupling.
鎖牙式連接套管