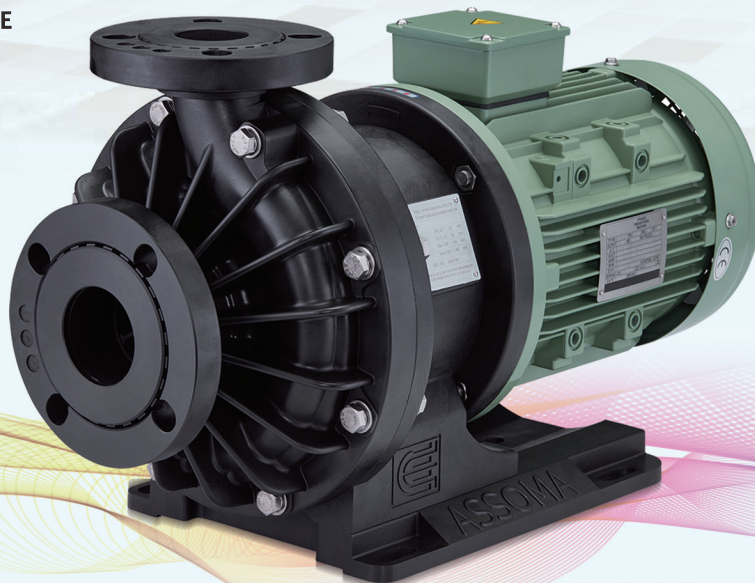




www.assoma.com

AVF-X[®] Series Superior Efficiency Magnetic Drive Pumps

AVF-X[®] 系列 超高效率磁力驅動泵浦



榮獲多國發明專利，請參閱協磁官網內容

Patented in Multiple Countries,
Please refer to our website for details.

Specifications

Horizontal, single-stage, centrifugal pump

Magnetic drive, seal-less, close-coupled

Wetted Material: PP+GF, PP+CF, ETFE+CF

Power Range: 0.37 - 7.5 kW (0.5 to 10 hp)

Maximum Capacity: 84 m³/h

Maximum Head: 45 m

規格一覽表

臥式單段離心泵

磁力驅動，無軸封，直接耦合

接液材質：PP+GF，PP+CF，ETFE+CF

馬力範圍：0.37 - 7.5 kW (0.5 - 10 hp)

最大流量：84 m³/h

最高揚程：45 m

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AVF-X Series Pumps AVF-X 系列泵浦

The AVF-X Series of pumps handle highly corrosive or toxic chemicals for everyday application. The sealless, magnetic-drive construction fully contains the chemical to prevent leakage and pollution of your work environment. This series covers a broad application range of up to 84 m³/h (370 gpm or 1400 lpm) flow capacity and up to 45 m (148 ft) head.

The AVF-X Series features breakthrough designs focused on improving pump efficiency. The pump has traditionally been one of the top consumer of industrial electricity. Our goal is to help you reduce energy consumption, improving the environmental friendliness of your production processes.

AVF-X 系列泵專為高科技電子及化學相關產業處理高腐蝕性或有毒化學品廣泛應用而設計，無軸封磁力驅動結構可完全隔離化學物質，避免洩漏造成您工作環境的污染或人員的傷害。該系列涵蓋的應用範圍流量高達 84 m³/h (370 gpm 或 1400 lpm)，揚程高達 45 m (148 ft)。

泵浦一直是工業製造最大的用電設備之一。我們的目標是透過 AVF-X 系列具有突破性的高效流體設計，採用歐盟泵浦能效要求的最高標準，協助您降低能源消耗，優化生產製程對環境保護的友善性。

How do magnetic drive pumps work? 磁力驅動泵浦操作原理

Magnetic pumps work by using a set of magnetic coupling to transfer the mechanical energy from the motor to the pump's impeller. A drive magnet is attached to the motor shaft. On the pump side, an inner magnet is attached to the pump impeller. The magnetic flux between the drive and inner magnets pass through the pump containment shell, forming the magnetic coupling. The magnetic coupling allows the pump to be hermetically sealed for leak-free operation.

磁力驅動泵浦是使用一組磁耦合器將動能從馬達傳送泵浦葉片。在馬達端，驅動磁鐵安裝在馬達軸心上。在泵浦端，內磁鐵與泵浦葉片相接。驅動磁鐵與內磁鐵的磁力線迴路穿透泵浦後蓋形成磁耦合器，達成泵浦無需軸封並能完全密封的運轉狀態。

Where can I use AVF-X Series pumps? AVF-X 系列的運用領域

- Chemicals where leakage must be avoided, including corrosive, toxic, and strong oxidizing agents.
- Prevent highly volatile chemicals from leaking into the environment.
- Chemicals that react when exposed to the atmosphere or chemicals that can degrade with atmospheric exposure.
- Chemicals that are very expensive.
- Long-term rising energy saving needs.
- 絕對不能洩漏之化學藥液，譬如：腐蝕性、有毒性以及強氧化劑
- 對環境有害之高揮發性化學藥液
- 容易與空氣反應或暴露於空氣會造成裂解的化學藥液
- 昂貴之藥水
- 有長期較高節能需求

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Why Choose AVF-X Pumps? 為何選用 AVF-X

The AVF-X series is one of the first fully plastic magnetic drive pumps to meet the highest European pump efficiency standards* on the market. Installing our high-efficiency pump with a high-efficiency motor, our customers are realizing exceptional energy savings in their production processes, reducing the carbon footprint of their products. This is especially helpful for our customers towards achieving their net-zero goals.

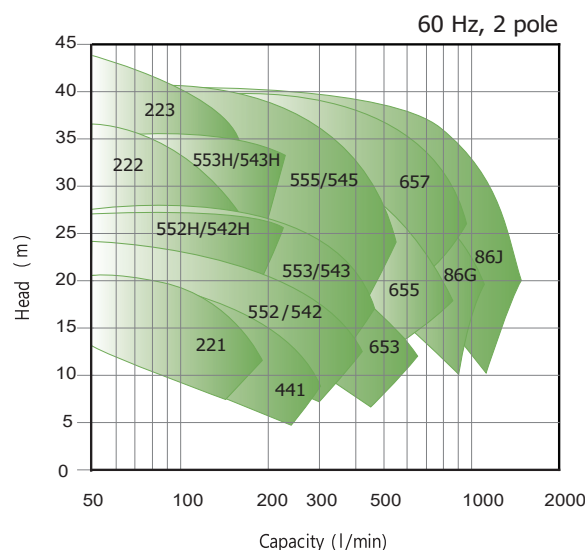
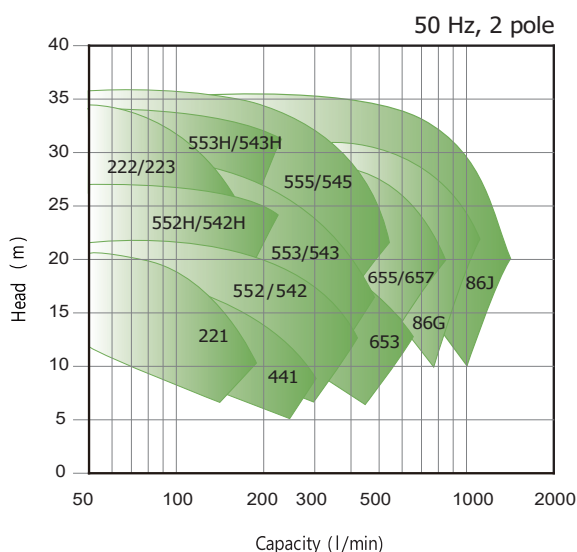
Contact us to learn more about how our AVF-X series pumps can help you achieve your climate goals. If you need a variable speed pump with the same high-efficiency pump design, check out our AVF-C series pumps.

AVF-X 系列是市面上滿足歐盟最高泵效率標準*的全塑料磁力驅動泵之一。顧客透過我們超高效泵搭配高效、防爆等電機，在生產過程中實現了卓越的節能效果，有效降低產品的碳足跡，對實現淨零目標有所貢獻。

歡迎您連絡我們以協助您評估 AVF-X 系列泵如何協助您達成節能目標。如果您需要具有相同高效設計的變頻泵，您可參考我們的 AVF-C 系列泵。

* Commission Regulation (EU) No. 547/2012 of 25 June 2012

Performance Curve 性能曲線圖



Note : The performance curves are based on clean water at ambient temperature. Chemical properties may affect your pump selection.
Please contact a qualified sales representative to verify the pump selection.

備註：此性能曲線圖是以清水在常溫的測試條件。化學藥水的特性可能影響您的泵浦選型。請聯絡合格的服務人員協助選型確認。

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Specifications 規格表

AVF-X Model AVF-X 機型		221	441	222	223	542	542H	543	543H	653	545	655	657	86G	86J
						552	552H	553	553H		555				
Rated Capacity 額定流量 (lpm)		120	200	80	80	200	150	250	150	540	300	600	600	1000	1000
Rated Head 額定揚程 (m)	50 Hz	18.0	14.0	33.2	33.2	20.0	26.1	25.6	33.0	15.5	32.0	25.9	25.9	23.8	29.0
	60 Hz	17.6	15.1	36.0	41.7	19.9	26.8	25.6	35.0	15.2	36.2	25.1	35.0	21.6	31.5
Motor Output 馬達輸出 (kW)		0.75	0.75	1.5	2.2	1.5	1.5	2.2	2.2	2.2	3.75	3.75	5.5	5.5	7.5
Temperature Range 溫度範圍 (°C)		PP+CF, PP+GF material: 0 - 80 ETFE+CF material: 0 - 95													

Note:
* AVF-X657 is a custom model 112M Frame.
* AVF-X657 搭配的馬達框號為 112M.

Pump identification 型式表示

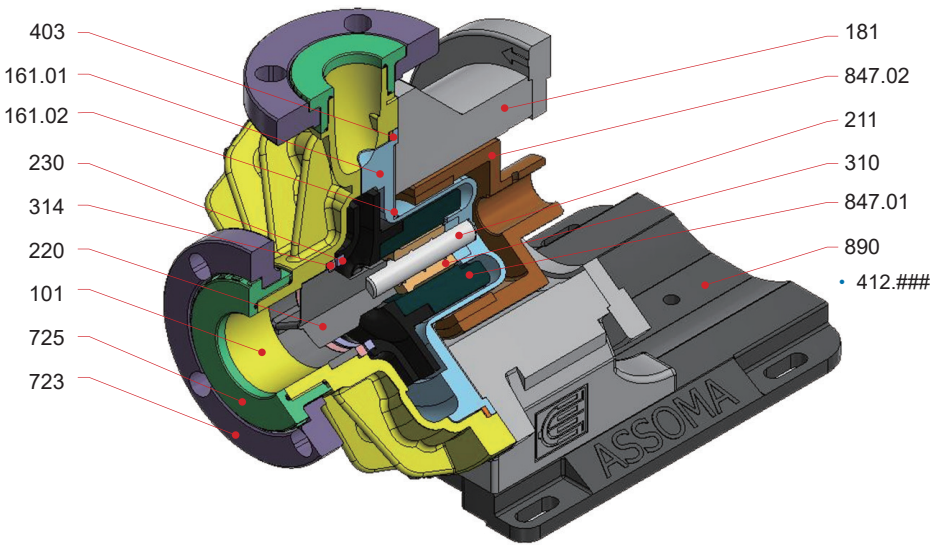
AVF-X 6 5 5 D G A C V G - 1 C
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

① Series 泵浦系列	AVF-X Series AVF-X 系列	⑦ Shaft Material 軸心材質	A : 995 Al ₂ O ₃ S : SSiC		
② Suction Size 入口口徑	2 : 25A(1") 4 : 40A(1.5") 5 : 50A(2") 6 : 65A(2.5") 8 : 80A(3")	⑧ Bearing Material 軸承材質	A : 995 Al ₂ O ₃ C : CARBON R : PTFE+CF S : SSiC		
③ Discharge Size 出口口徑	2 : 25A(1") 4 : 40A(1.5") 5 : 50A(2") 6 : 65A(2.5")	⑨ Sealing Material 密封材質	E : EPDM V : FKM		
④ Motor Power 額定功率	0 : 0.5 hp (0.37 kW) 1 : 1 hp (0.75 kW) 2 : 2 hp (1.5 kW) 3 : 3 hp (2.2 kW) 5 : 5 hp (3.7 kW) 7 : 7.5 hp (5.5 kW)* G : 7.5 hp (5.5 kW) J : 10 hp (7.5 kW)	⑩ Bracket & Base Material 托架與底座材質	E : FC Bracket + SUS304 Base for IEC motor IEC 馬達用鑄鐵托架搭配 SUS304 底座 G : PPG Bracket and Base PPG 托架與底座 N : FC Bracket + SUS304 Base for NEMA motor NEMA 馬達用鑄鐵托架搭配 SUS304 底座 S : PPG Bracket + SUS304 Base PPG 托架搭配 SUS304 底座		
⑤ Type of Connection 配管形式	D : Flange 法蘭 U : Union 由任 T : Thread 牙口	⑪ Motor Type 馬達形式		60 Hz	50 Hz
⑥ Casing Material 本體材質	C : PP+CF E : ETFE+CF G : PP+GF		Standard 標準	6	5
			Exe (eG3)	3	e
			Exd (d2G4)	4	d
			Outdoors 屋外	1	2
		Special 特殊	S		
		⑫ Optional 選項	C : Customized 客製品		

Note:
* AVF-X657 is a custom model with a non-standard 5.5 kW motor packed into a 112M frame. Variable frequency drive is recommended. Contact ASSOMA for more information.

*AVF-X657 搭配 112 縮框訂製 5.5 kW 馬達，建議搭配變器使用，詳情可洽協磁公司。

Material 材質構造圖



Part code 編號	Part name 名稱			Available Materials 可選用材質
101a	Pump casing assembly 前蓋法蘭組	101	Pump casing 前蓋	PP+GF / PP+CF / ETFE+CF
		723	Flange 法蘭*	PP+GF
		725	Flange adapter 法蘭連結件	PP+GF / PP+CF / ETFE+CF
		412.###	O-ring O 形環***	EPDM / FKM
161.01	Rear casing assembly 後蓋止推環組	Rear casing 後蓋		PP+GF / PP+CF / ETFE+CF
		Rear thrust ring 後止推環		995 Al ₂ O ₃ / SSiC
161.02	Backup Plate 後蓋背板			SUS304
181	Bracket 托架			PP+GF
211	Shaft 軸心			995 Al ₂ O ₃ / SSiC
220	Front support, shaft 軸心支撐			ETFE+CF
230	Impeller wear ring assembly 葉片磨損環組	Impeller 葉片組		PP+GF / PP+CF / ETFE+CF
		wear ring 磨損環		Carbon / SSiC / PTFE+CF
310	Bearing 軸承			Carbon / PTFE+CF 995 Al ₂ O ₃ / SSiC
314	Front thrust ring 前止推環			995 Al ₂ O ₃ / SSiC
403	Packing 迫緊***			EPDM / FKM
847.01	Magnet capsule 包膠內輪			PP / ETFE
847.02	Drive Magnet 外輪			Nd-Fe-B**
890	Base Plate 底座			PP+GF
412.###	O-ring O 形環***			EPDM / FKM

Notes:

* The flange is not a wetted part, we offer PP+GF as the standard material. Contact us if you have other material needs.

** 1/2 and 1 hp pumps use Ferrite metals for the magnets.

*** Alternative O-ring / Packing materials are available for critical applications. Please contact us for further information.

備註：

* 法蘭非接液部件，所以法蘭標準材質為 PP+GF，若有特殊需求請洽協磁公司。

** 1/2 及 1 hp 的磁體材質為鐵氧體。

*** O 形環 / 迫緊尚有其他材質可供選擇，詳情可洽協磁公司。



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