



AMXI 系列 SERIES

磁力驅動無軸封泵浦
MAGNETIC DRIVE SEAL-LESS PUMP



<http://www.assoma.com.tw>

榮獲
PATENTED IN
德國、台灣
GERMANY, TAIWAN (R.O.C.),
日本、大陸
JAPAN, CHINA (P.R.C.),
韓國、英國新型專利
KOREA, UK.

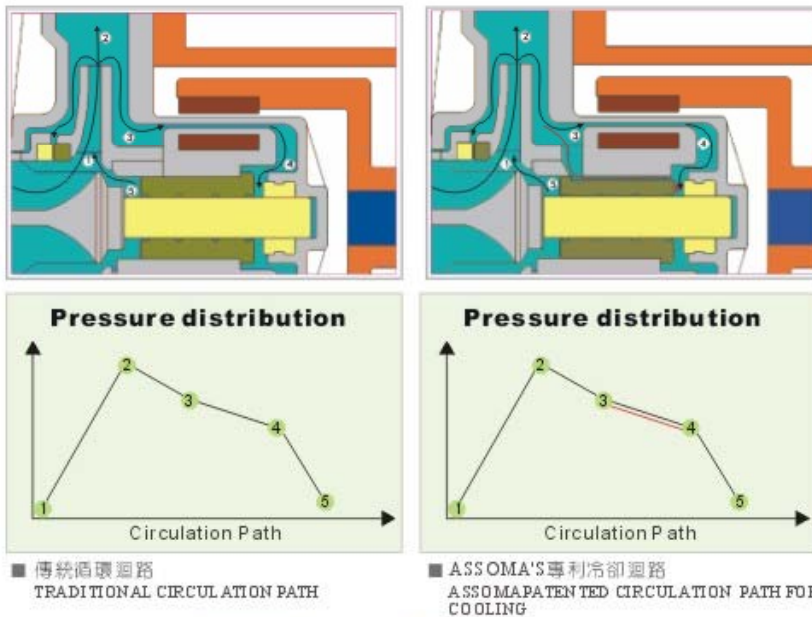
專利功能 Patented Function

AMXI系列是全球內襯氟化塑料磁力驅動泵浦中，唯一具有優異長效耐空轉特性及軸向推力緩衝機構兩項專利，且性能優異的系列機種。

ASSOMA AMXI series is the only one in the world, using a metallic outer casing lined with E TFE engineering plastics, equipped with two patents: A distinct construction to reduce overheating from DRY RUN and an axial BUFFER SYSTEM to absorb vibration and shock by abnormal operation.

AMXI系列是協磁公司專為克服無軸封泵浦經常遇到的異常現象，如“空轉”、“汽化”等導致泵浦嚴重損壞的全新系列產品。

AMXI is a new series specially designed to overcome harmful damage to a sealless magnetic drive pump by some abnormal conditions, such as dry run, and cavitation, etc.



■ AMX 空運轉展示中 (ACHEMA 2003)
DRY-RUNNING SHOWN ATACHEMA 2003

強固的結構 Robust Structure

AMXI 系列不僅適用於一般化學輸送及製程用途，由於其強固的金屬外殼護罩及內襯氟化塑料設計，更適用於高溫、高壓，強酸、強鹼等嚴峻條件。

AMXI series is not only used for general chemical transportation and processing, due to its robust structure of metallic outer casing lined with E TFE engineering plastics, but also suitable to use under high temperature, high pressure, critical acid or alkaline applications.

AMXI 系列已獲多項國際專利，其優異的機械及水力性能除在實驗室中長期驗證外，並參加多項國際性展覽，普獲好評。

AMXI series obtained several patents worldwide. It is well receipt by customers for its outstanding mechanical structure and hydraulic performance. It has been verified satisfactorily on the long trial run in the lab and displayed in several international exhibitions, and highly appraised by the public.

由泵浦流體設計軟體計算出最佳流道幾何，配合流場分析，掌握流動特性，使流體損失降為最低，提高葉片流體效率。

The geometry of impeller and casing are generated by professional hydraulic design programs. In addition, Computerized Fluid Dynamic (CFD) method is used to control stream pattern, thus reducing hydraulic loss and increasing pump efficiency.

高效率水力設計
High Efficient Flow Design

AMXI的軸承潤滑迴路，首創雙面對流冷卻設計，在同樣的潤滑熱量下，可帶走更多流量，即使空轉時，也可降低熱平衡溫度，提高抗空轉能力。



The revolutionized bearing design with dual-channel circulation on both inner and outer surfaces of bearing contributes to rapidly heat dissipation.

The circulation leakage of sealless pump is fully utilized to reinforce convectional heat transfer that lowers thermal balancing temperature and prevents damage even under dry running.

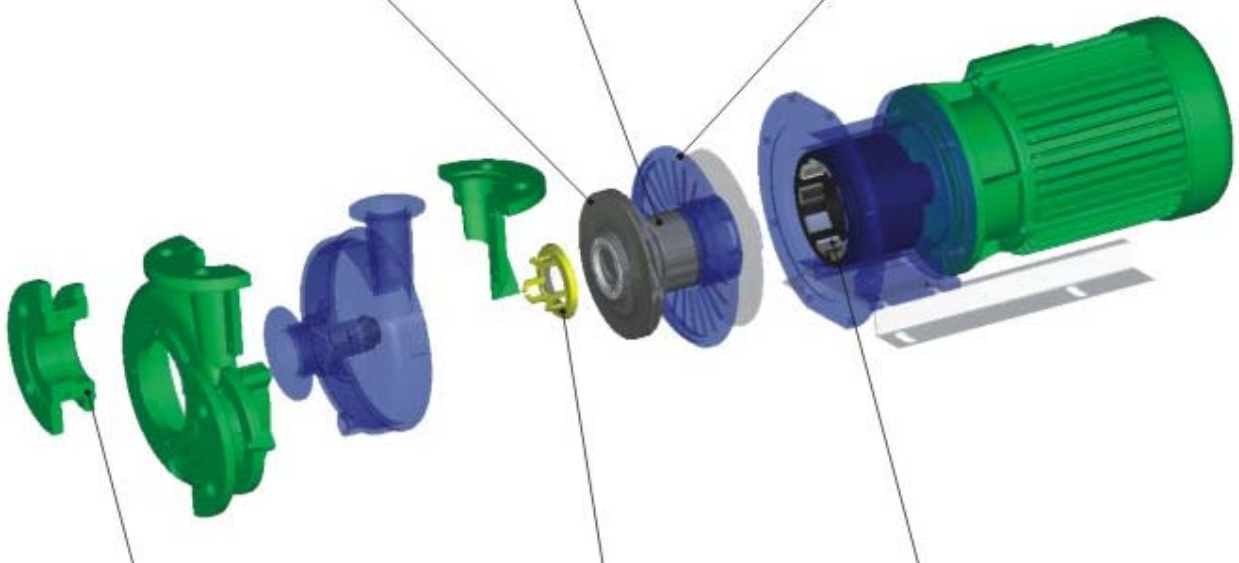
專利耐空轉結構
Patented Dry-run Design

以電腦輔助設計及分析強調可靠度及最佳化的現代設計理念。



Using fully computer aided design and analysis to assist product development. This modern design concept helps ASSOMA's products lead to high technical industry.

結合CAD/CAE的科技產品
Integrate CAD/CAE System



高強度本體結構
High Strength Construction

全系列採用金屬內襯氟化塑膠材質，可同時符合強度與耐蝕性需求。

The AMXI series uses a metallic outer casing and a volute made from engineering plastic to provide the required structural strength as well as the needed corrosion resistance.

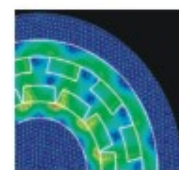
專利緩衝止推系統
Patented Buffer System

獨具創意的動態式緩衝座，除具備緩衝作用以吸收泵浦葉輪在吸入條件惡劣時之振動外，並提供止推環與葉輪磨損環間一動態式的平面接觸，藉以保持摩擦面之有效接觸面積，並大幅提高止推環可靠度及使用壽命，可降低疲勞損害。

Our innovative dynamic buffer is specially designed to absorb vibrations and shock caused by adverse operating conditions. At the same time, the dynamic buffer is self-adjusting, allowing a better face to face contact between the thrust ring and the wear ring, thus, minimizing wear and prolonging their service life.

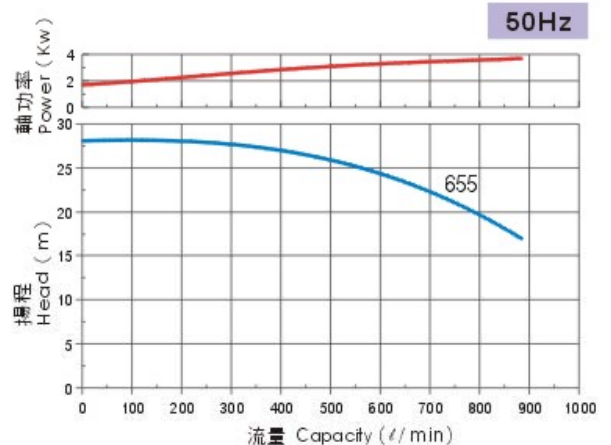
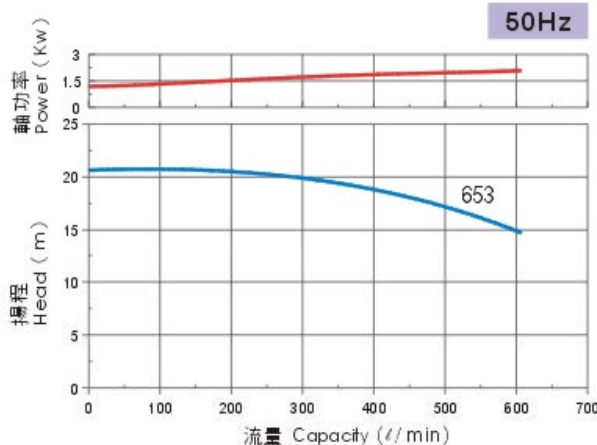
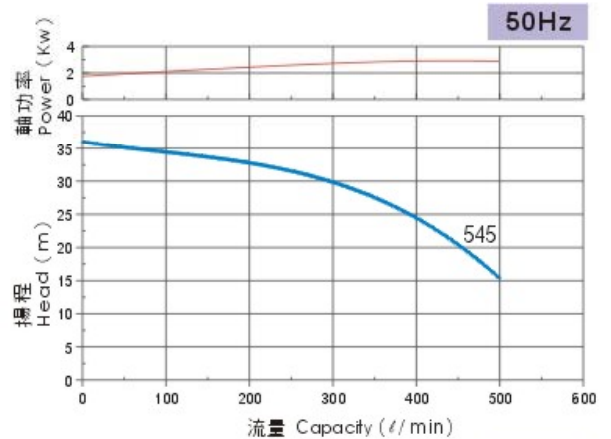
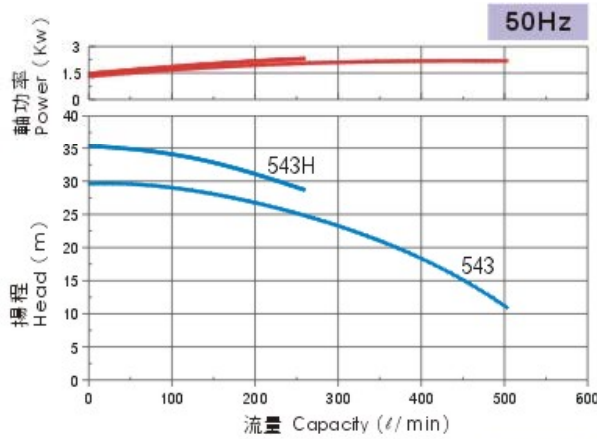
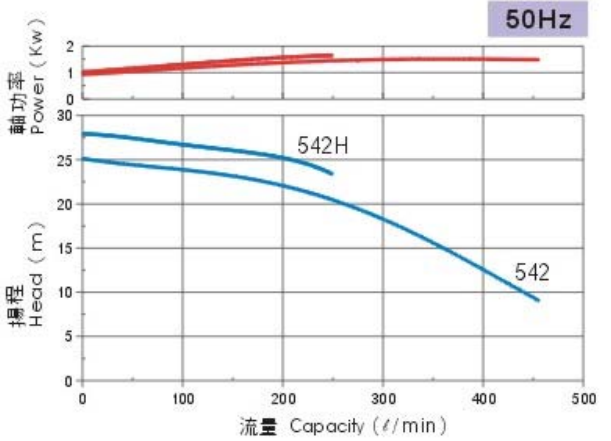
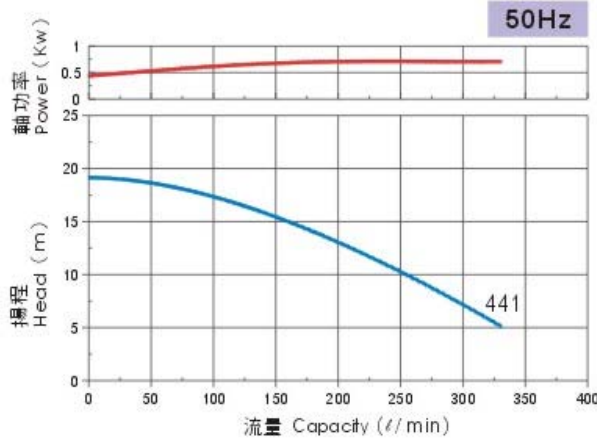
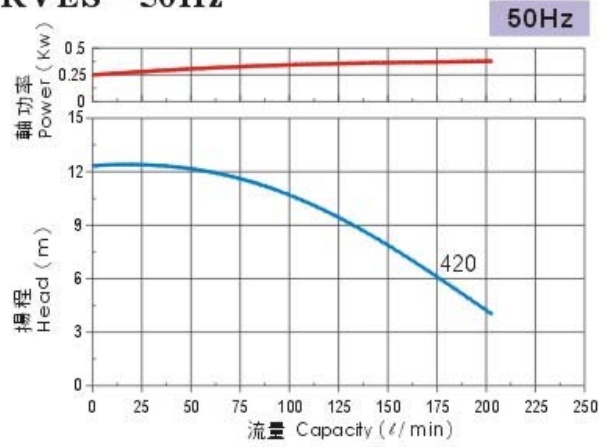
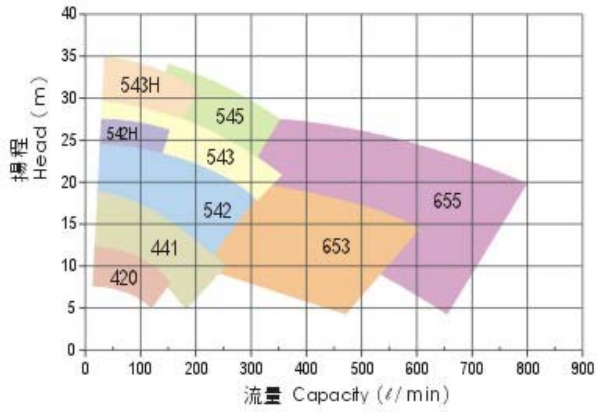
高性能磁偶合器
High Performance Magnetic Coupling

利用磁場分析軟體計算磁扭矩，提高磁鐵利用率，確保足夠的偶合動力餘裕以避免滑脫。

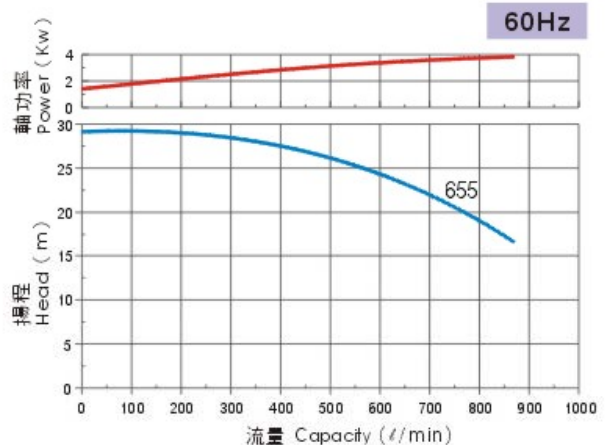
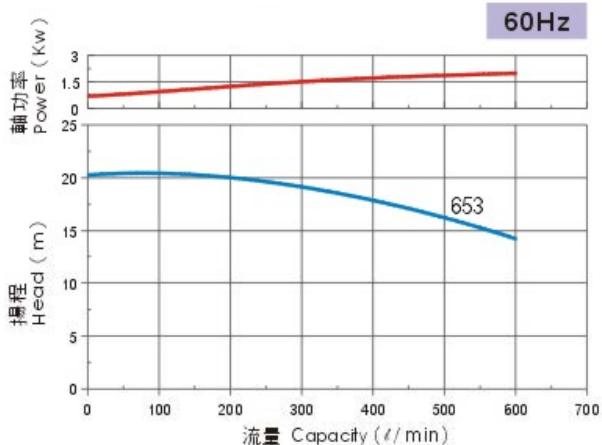
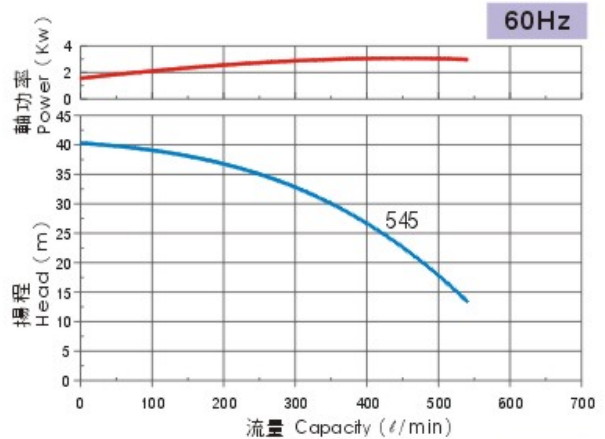
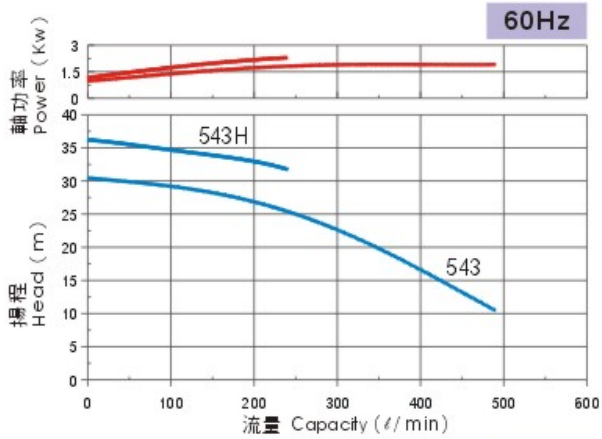
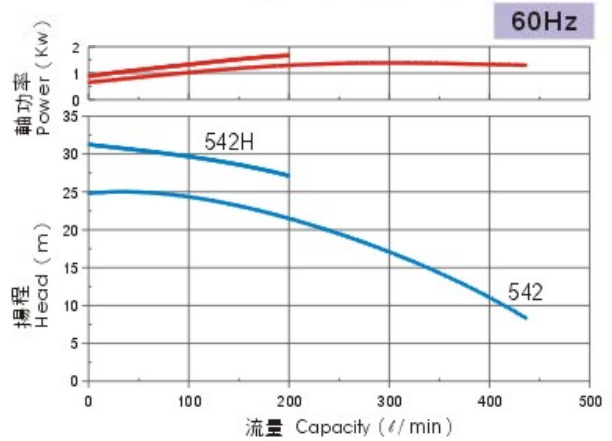
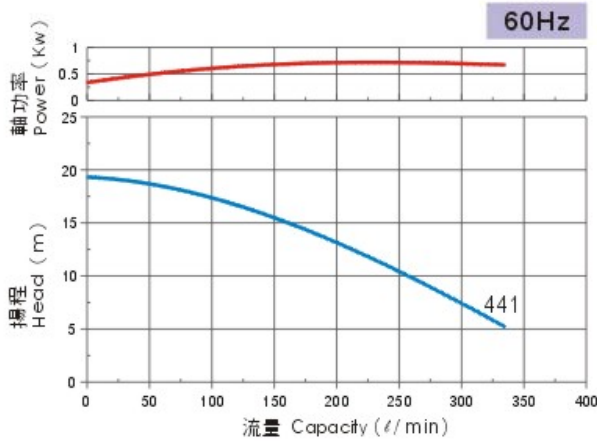
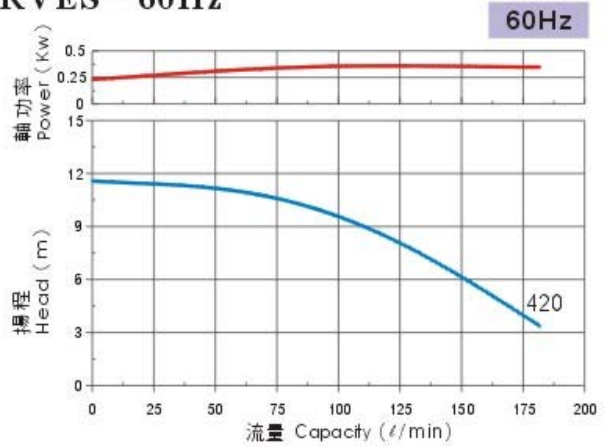
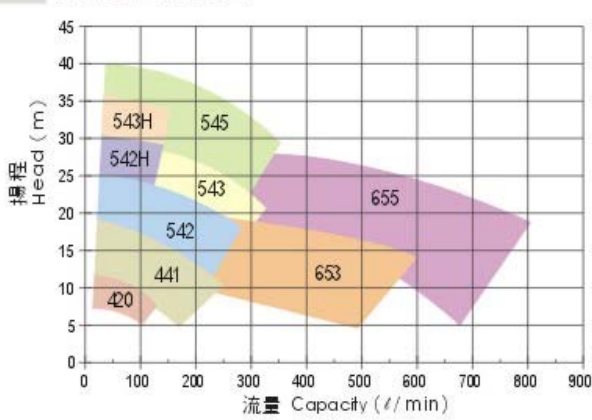


We utilize magnetic field analysis programs to calculate magnetic torque to maximize magnet utilization and ensure sufficient torque margin to prevent decoupling.

性能曲線圖 PERFORMANCE CURVES — 50Hz



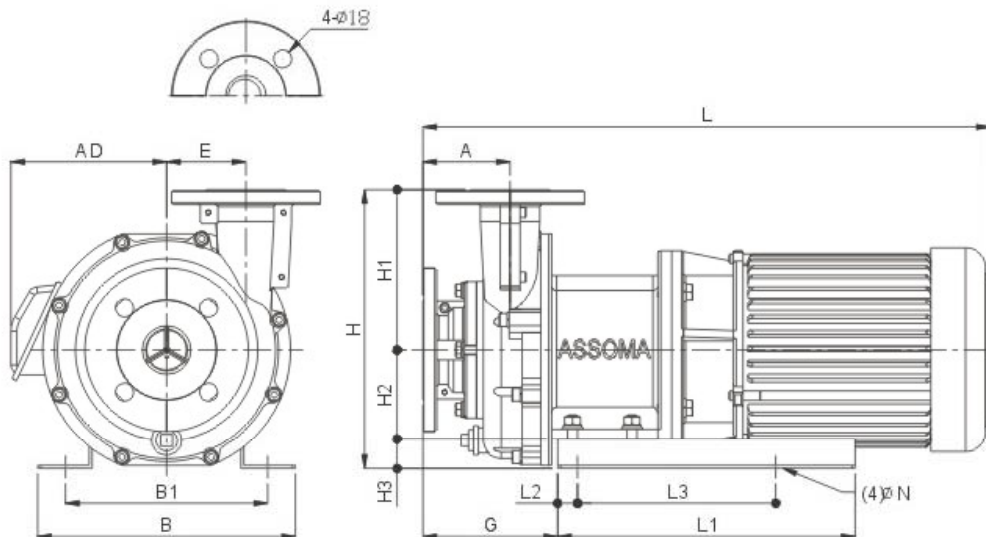
性能曲線圖 PERFORMANCE CURVES—60Hz



規格表 SPECIFICATIONS

機 型 Model	入口*出口配管 Connection Suction*Discharge mm*mm	頻 率 Frequency	額定流量 Rated Capacity l/min	額定揚程 Rated Head m	最高揚程 Max. Head m	馬達輸出功率 Motor Output kw
AMXI-420	40x25	50Hz	100	10.7	12.3	0.4
		60Hz	100	9.6	11.6	
AMXI-441	40x40	50Hz	150	15.5	19.2	0.75
		60Hz	150	15.5	19.3	
AMXI-542	50x40	50Hz	200	22.2	25.1	1.5
		60Hz	200	21.5	24.8	
AMXI-542H	50x40	50Hz	100	26.7	28.0	1.5
		60Hz	100	29.9	31.3	
AMXI-543	50x40	50Hz	250	25.2	29.7	2.2
		60Hz	250	25.1	30.5	
AMXI-543H	50x40	50Hz	150	32.8	35.4	2.2
		60Hz	150	33.9	36.2	
AMXI-545	50x40	50Hz	250	31.0	35.7	3.7
		60Hz	250	34.8	40.1	
AMXI-653	65x50	50Hz	500	17.2	20.6	2.2
		60Hz	500	16.2	20.3	
AMXI-655	65x50	50Hz	500	26.0	28.1	3.7
		60Hz	500	26.2	29.1	

外型尺寸圖 DIMENSIONS



項目 Model	尺寸 (mm)														
	A	AD	B	B1	E	G	H	H1	H2	H3	L	L1	L2	L3	N
AMXI-420	87	133	140	110	55	129	225	130	75	20	470	200	20	98	12
AMXI-441	102	144	160	130	72	148	256.5	141.5	85	30	489.5	210	35	130	
AMXI-542	88	157	260	204	80	136	281.5	161.5	90		132	572.5	300	20	200
AMXI-543		189	250	220		117	323.5		634	360		30	300		
AMXI-545		189				582	643.5								
AMXI-653	92.5	157	250	220	80	126.5		333	171	132	30	582	360	30	300
AMXI-655		189					643.5								

型式表示 PUMP IDENTIFICATION

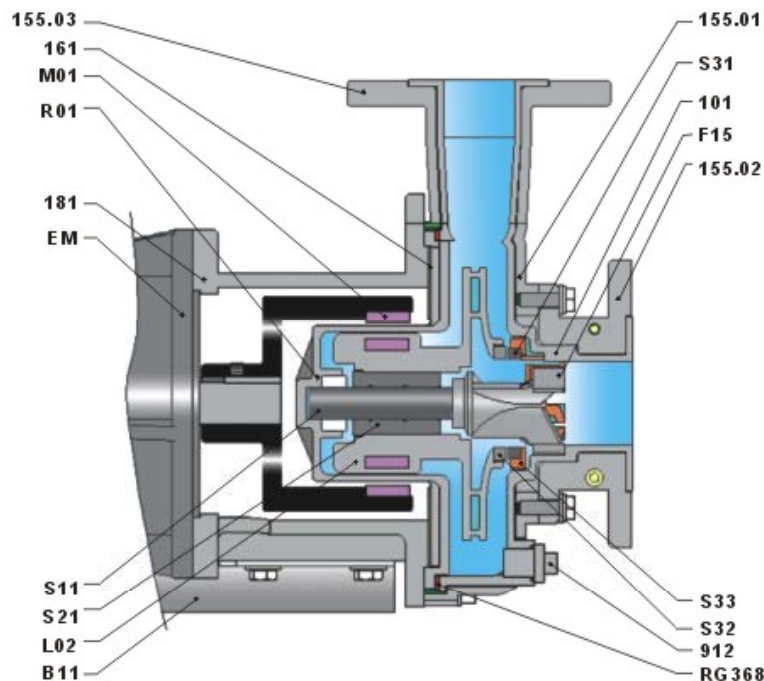
AMXI - 5 4 2 F E A C V - 0

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

① 系列名稱 Series Symbol	AMXI 系列 Series
② 入口配管 Suction Connection	4: 40A(1½")法蘭 Flange 5: 50A(2")法蘭 Flange 6: 65A(2½")法蘭 Flange
③ 出口配管 Discharge Connection	2: 25A(1")法蘭 Flange 4: 40A(1½")法蘭 Flange 5: 50A(2")法蘭 Flange
④ 馬力數 Motor Power	0: 1/2 Hp (0.4kw) 1: 1 Hp (0.75kw) 2: 2 Hp (1.5kw) 3: 3 Hp (2.2kw) 5: 5Hp (3.75kw)
⑤ 配管形式 Type of Connection	F: 法蘭 Flange
⑥ 本體材質 Casing Material	E: ETFE+CF

⑦ 軸心材質 Shaft Material	A: 995 Al ₂ O ₃ S: SSiC
⑧ 軸承材質 Bearing Material	A: 995 Al ₂ O ₃ C: CARBON R: RULON S: SSiC
⑨ O形環材質 O-Ring Material	V: VITON F: VITON+FEP E: EPDM
⑩ 馬達型式 Motor Type	0: 全閉外扇屋內型 TEFC Indoor 1: eG3安全增防爆型 Explosion proof eG3 2: 全閉外扇屋外型 TEFC Outdoor 3: eG3安全增防爆屋外型 Explosion proof outdoor eG3 D: dDG4耐壓防爆型 Explosion proof dDG4 S: 特殊馬達 Special motor

材質構造圖 MATERIAL



編號 Partcode	名稱 Part name
101	前蓋 Pump casing
155.01	前蓋護體 Casing armour
155.02	入口護體 Casing armour
155.03	出口護體 Casing armour
161	後蓋背板 Casing mount
181	托架 Bracket
912	排洩栓 Drain plug
B11	底座 Base
EM	馬達 Motor
F15	前軸心支撐 Front shaft support
L02	葉輪組 Impeller
M01	外輪 Outer magnet
R01	後蓋組 Rear casing assembly
RG###	O形環 O-ring
S11	軸心 Shaft
S21	軸承 Slide bearing
S31	前止推環 Front thrusting
S32	前磨損環 Front wearing
S33	前緩衝座 Front buffer

描述零件 DESCRIPTION	材質代號 MATERIAL	ACE	ACV	ARE	ARV	SAE	SAV	SSE	SSV
前蓋 Casing		ETFE+CF							
葉輪 Impeller		ETFE+CF							
O形環 O-Ring		EPDM	VITON	EPDM	VITON	EPDM	VITON	EPDM	VITON
軸心 Shaft		995 CERAMIC				SSiC			
軸承 Slide bearing		CARBON		RULON		995 CERAMIC		SSiC	
前止推環 Front thrusting		995 CERAMIC				SSiC			
後止推環 Rear thrusting		995 CERAMIC							
前磨損環 Wearing		CARBON		RULON		995 CERAMIC		SSiC	
前緩衝座 Front buffer		ETFE							