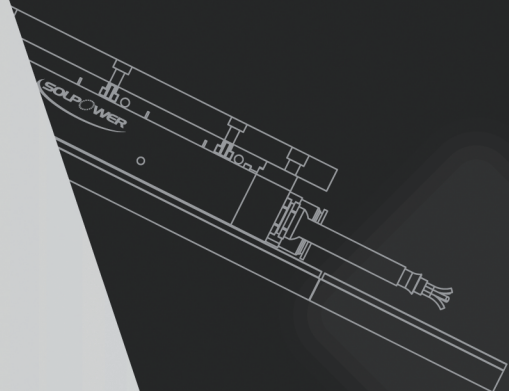




SOLPOWER MACHINE
ELECTRONIC CORP.

LPM

SOL-POWER-LINEAR-SERVO MOTOR
SOL-POWER-LINEAR MOTOR





公司簡介

晟昌機電股份有限公司成立於 1995 年，成立初鑑於台灣工具機出口值在世界排名第四、第五，卻沒有自己的主軸馬達控制器。關鍵性零性需仰賴進口，整體而言相當可惜，當初即整合國內外優質的控制器與驅動器，研發各式產業機械專用馬達，涵蓋感應伺服馬達、同步伺服馬達、線性馬達、DD 馬達及內藏式定轉子，由於產品特性與品質媲美，歐、美、日本主軸馬達，在國內外廣為工具機及控制器大廠所使用，並外銷世界三十餘國家(中、德、日、義、美、瑞士、韓國、波蘭、印度等)受到國內、外客戶的讚賞。

晟昌機電創業至今，不斷提升產品精度與穩定性，滿足各種市場及客戶需求，積極研發符合趨勢的新產品，開拓國際市場，多年來始終堅持著“品質、服務、創新”的經營理念，以創新技術與穩定的產品品質，在此基礎上，展望未來，持續投入研發，與合作夥伴共同努力、共同成本為傳動業創造出更璀璨的未來。



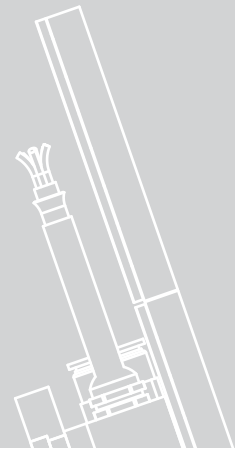


COMPANY PROFILE

was founded in 1995. In consideration of world ranking of Taiwan tool machine export, the Forth and Fifth place, it was a pity that Taiwan tool machinery companies have no their own spindle motor controllers and the key components need to be imported. CHENG CHANG initially integrated high quality controllers and drivers and developed spindle motors including induction servo motors, synchronous servo motors, linear motors, DD motors and build-in stator and rotor specifically for general industrial machine. Owing to the outstanding product characteristics and quality, which is compared favorably with spindle motors made in Europe, America, and Japan to gain very good feedback from customers, our motors export to thirty nations including China, Germany, Japan, Italy, U.S.A., Switzerland, Korea, Poland, India in the world.

Since establishment, Cheng Chang Machine Electronic Corp. continually promote precision and stability of products to research and develop new products in the trend to expand international market for meeting a variety of markets and customers' necessary. We have insisted on the business management ideas, "quality, service, and innovation", for many years to improve technology and steady quality of products. In the future, we will keep putting in more efforts in research and development to create a resplendent future for transmission industry and to achieve the mission of Energy Efficiency and Carbon Reduction.





經營理念

品質

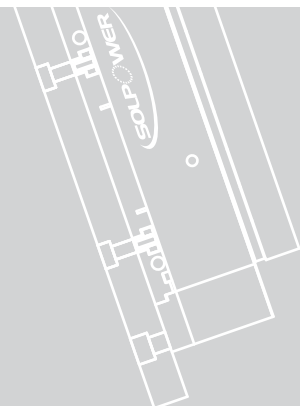
提供優良的高階伺服馬達、高精密檢測設備及嚴謹的 SOP 控管生產流程，致力高效率、高品質及低售服率為訴求，是晟昌機電不斷進步的動力

服務

提供完善的服務網路及滿足客戶的標準化及客制化馬達需求，以誠信作為服務基礎，積極開拓國際版圖

創新

以札實的技术核心，垂直整合研發及技術製程，因應市場的變動，提供卓越的产品提升產業附加價值，與客戶共創雙贏





MANAGEMENT PHILOSOPHY

Quality

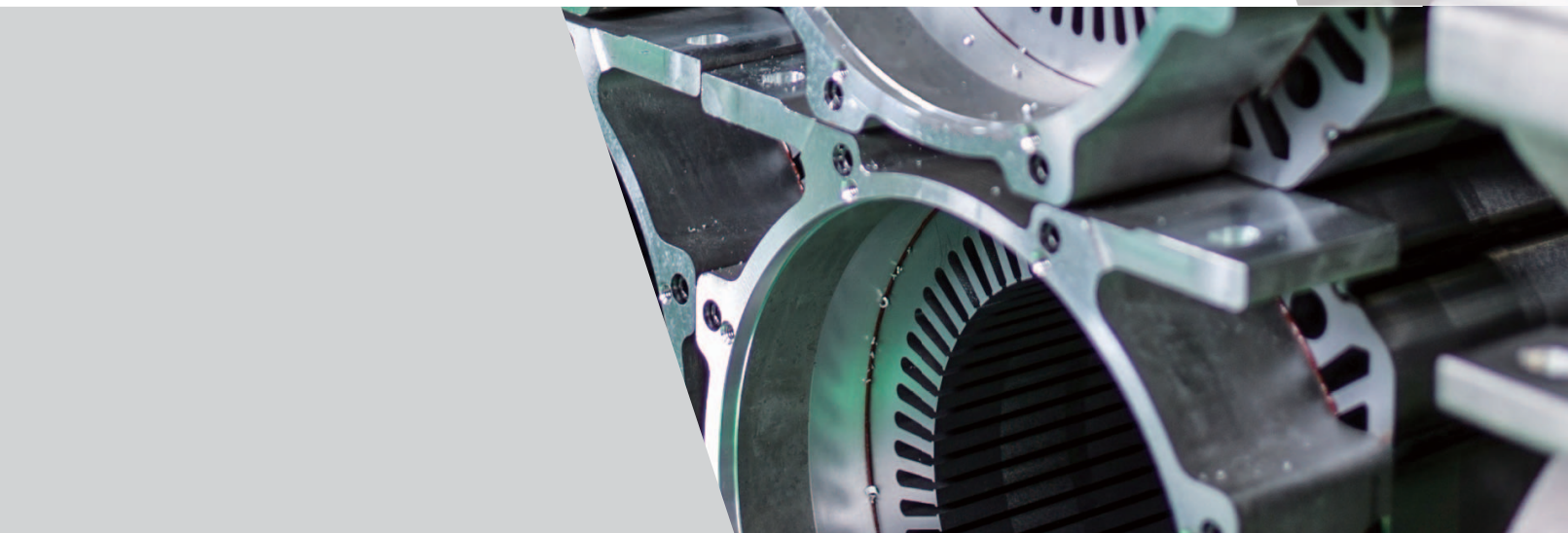
For providing excellent high-class servo motors, high precise detecting instrument and strict SOP to control product process, we strive for offering high efficiency, quality and low after-care service rate so that we have motivation for continuous improvement.

Service

Based on the concept of credibility, we provide complete service network and satisfy standard and customized necessities from customers to expand international market.

Innovation

In order to create mutual beneficial solution between customers and us, we have steady technical core, vertical integrate research, development and technical process for providing outstanding products to upgrade industrial additional value.



Direct Drive LINEAR MOTOR Summary

Water-Cooled

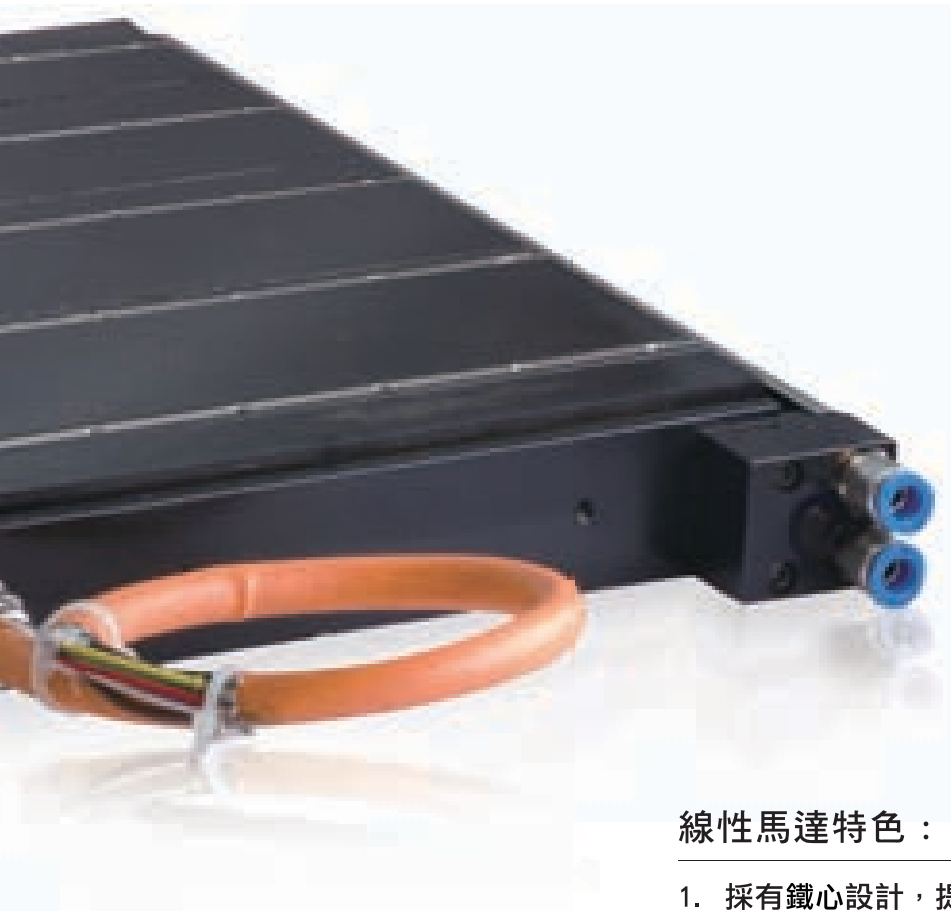
	MAX Continuous Force(N)	Peak Force(N)	Page no.
LPM01-030	260	320	1~4
LPM01-050	440	530	
LPM01-075	655	805	
LPM01-100	870	1055	
LPM01-150	1290	1580	
LPM01-200	1720	2108	

LPM02-030	525	635	5~8
LPM02-050	870	1055	
LPM02-075	1290	1580	
LPM02-100	1720	2110	
LPM02-150	2570	3158	
LPM02-200	3465	4210	

LPM03-030	775	950	9~12
LPM03-050	1290	1580	
LPM03-075	1930	2370	
LPM03-100	2600	3160	
LPM03-150	3855	4730	
LPM03-200	5140	6310	

LPM04-030	1040	1265	13~16
LPM04-050	1715	2105	
LPM04-075	2570	3160	
LPM04-100	3460	4210	
LPM04-150	5140	6310	
LPM04-200	6920	8415	





線性馬達特色：

1. 採有鐵心設計，提高線性馬達效率
2. 由於機械接觸較少，直線電機擁有高響應和長期穩定性
3. 高速的動態響應及較高的速度，與滾珠螺桿相比具有較高的移動速度與定位精度

Charateristic

1. With ironcore design, linear motor raise efficiency.
2. Linear motors own higher reflection and long stability because of directly touching less with mechanism
3. Compared higher moving speed and precise position with ball screws, linear motors have high speed's dynamic reflection and precise position.

適用範域：

- P. C. B 鑽孔機
- 工具機
- 產業機械

Application:

- P.C.B drilling machine
- machine tool
- general industrial machinery

LINEAR



Ironcore Water-Cooled Motors Series

Rated Performance	Symbol	Units	LPM01-030	LPM01-050	LPM01-075	LPM01-100	LPM01-150	LPM01-200						
峰值推力 / Peak Force	FP	N	320	530	805	1055	1580	2108						
連續推力 Continuous Force @ Tmax(1)	FC	N	260	440	655	870	1290	1720						
馬達常數 Motor Constant @25°C	Km	N/√W	19.5	29	37.5	45.5	56	66						
Electrical Specifications(2)														
		Winding Code	A1	B1	A1	B1	A1	B1	A1	B1	A1	B1	A1	B1
反電勢 Back EMF Constant@25°C±10%	Ke	Vpeak/m/s L-L	24.8	14.3	41.4	23.9	62.2	35.9	82.9	47.8	124	71.7	166	95.7
力常數 Force Constant@25°C±10%	Kf	N/Arms	30.4	17.6	50.7	29.3	76.2	44	102	58.6	152	87.9	203	117
電阻 Electrical Resistance@25°C±10%	Rm	Ohms L-L	1.6	0.53	2.1	0.7	2.8	0.93	3.5	1.2	5	1.7	6.4	2.1
電感 Electrical Inductance±20%	L	mh L-L	10.3	3.4	16.5	5.5	24.4	8.1	32.1	10.7	47.7	15.9	63.3	21.1
峰值電流 / Peak Current	Ip	Arms	13.8	23.9	13.8	23.9	13.8	23.9	13.8	23.9	13.8	23.9	13.8	23.9
連續電流 Continuous Current @ Tmax	Ic	Arms	9.7	16.9	9.9	17.2	9.9	17.1	9.9	17.2	9.8	17	9.8	17

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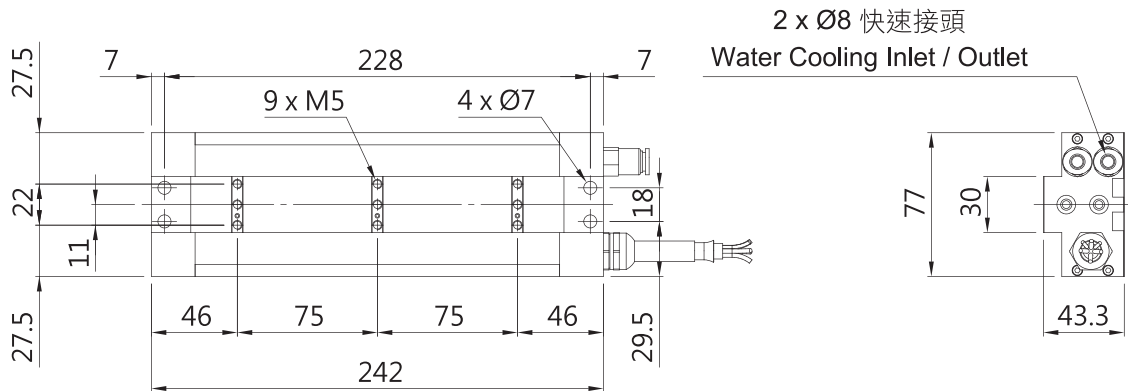


Ironcore Water-Cooled Motors Series

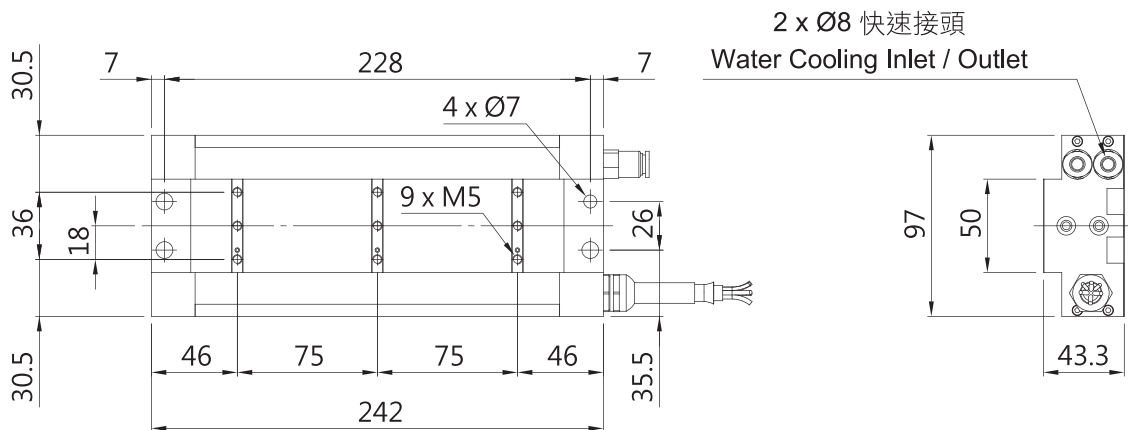
Rated Performance	Symbol	Units	LPM01-030	LPM01-050	LPM01-075	LPM01-100	LPM01-150	LPM01-200
Mechanical Specifications								
線包重量 Coil Assembly Mass±15%	Mc	kg	2.5	3.6	5	6.5	9.4	12.3
磁板型號 Magnetic Way Type			LPM030	LPM050	LPM075	LPM100	LPM150	LPM200
磁板重量 Magnetic Way Mass±15%	Mw	kg/m	5.4	7.5	10.1	12.7	20.7	26.8
Figures of Merit and Additional Data								
電氣時間常數 Electrical Time Constant	Te	ms	6.4	7.9	8.7	9.2	9.5	9.9
最大加速度 Max.Theoretical Acceleration(3)	Amax	g's	15.3	17.7	19.2	19.6	20.3	20.7
磁性吸力 Magnetic Attraction	Fa	kN	1.4	2.4	3.7	4.9	7.3	9.9
熱電阻系數 Thermal Resistance(4) (coils to external structure)	Rth	°C/Watt	0.33	0.24	0.18	0.15	0.1	0.081
線圈容許最大溫度 Max.Allowable Coil Temp.(4)	Tmax	°C	130	130	130	130	130	130

LINEAR

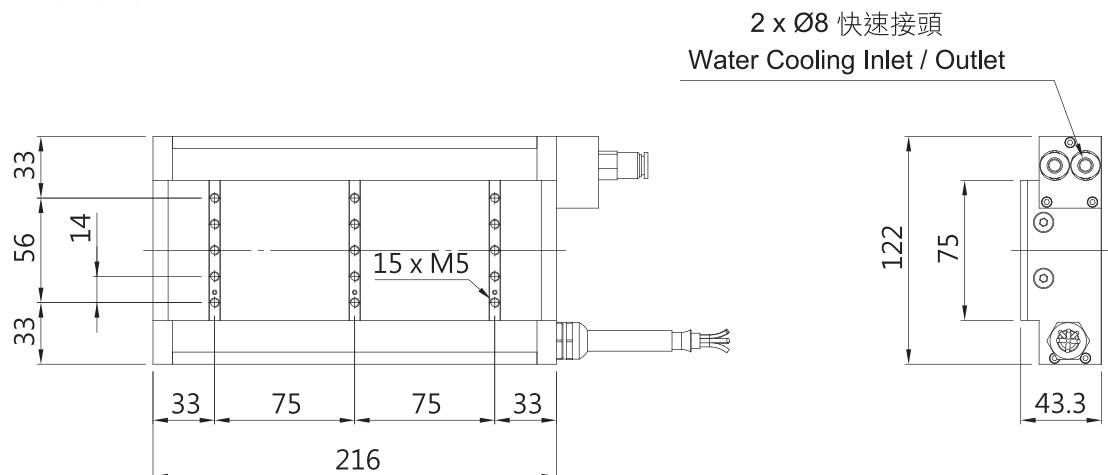
LPM01-030

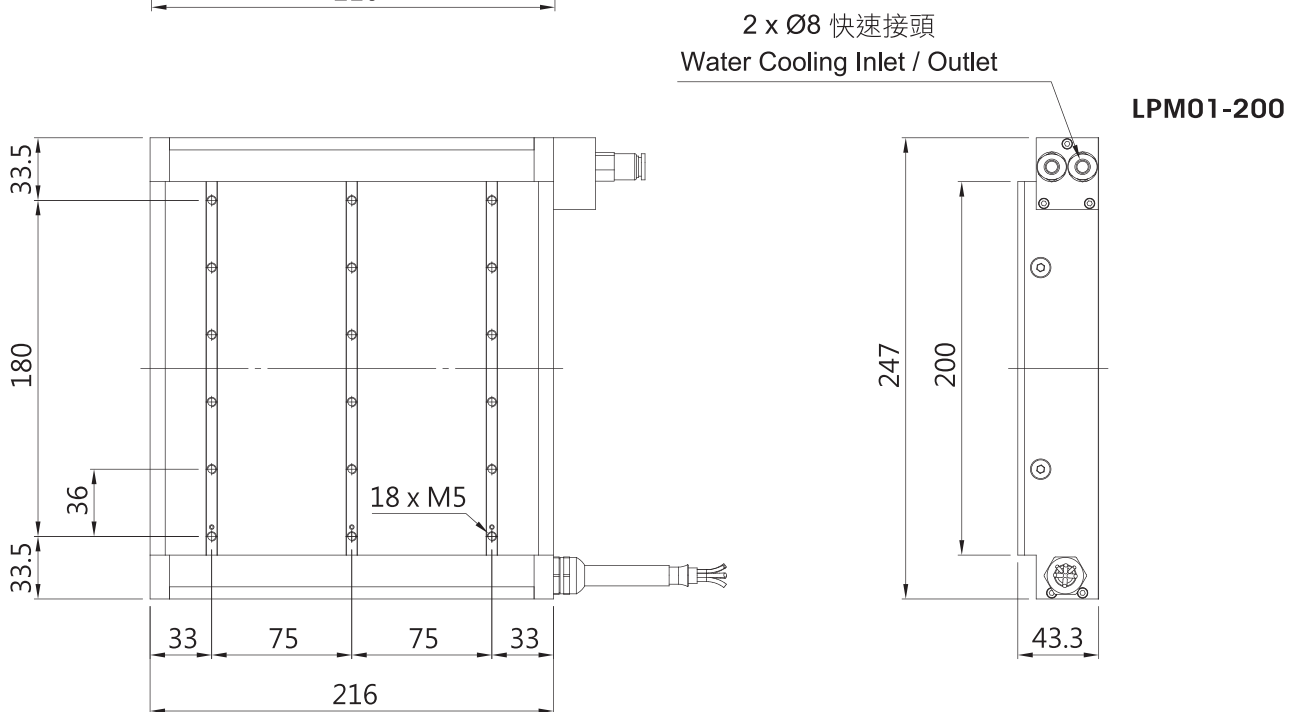
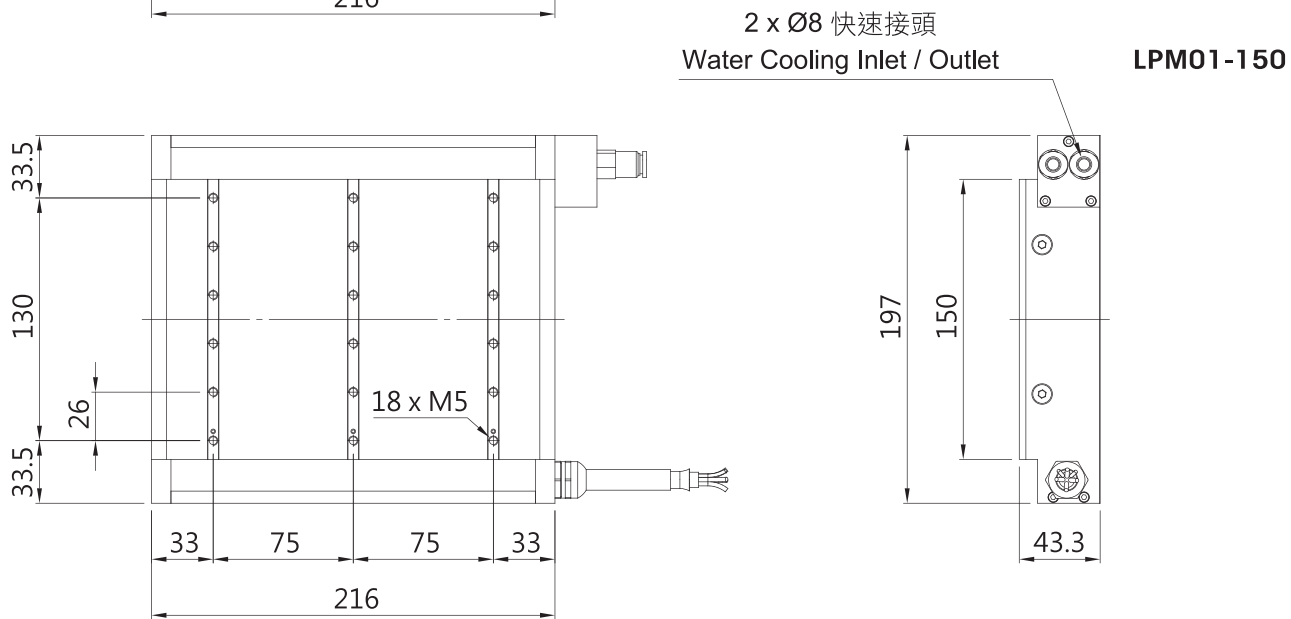
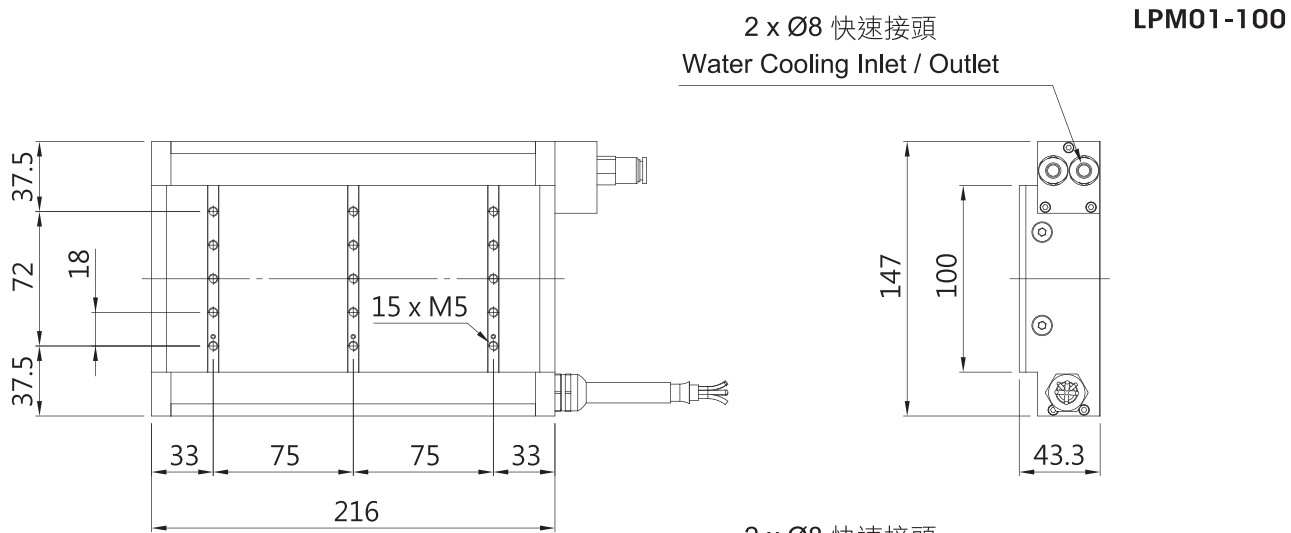


LPM01-050



LPM01-075





LINEAR



Ironcore Water-Cooled Motors Series

Rated Performance	Symbol	Units	LPM02-030	LPM02-050	LPM02-075	LPM02-100	LPM02-150	LPM02-200
峰值推力 / Peak Force	FP	N	635	1055	1580	2110	3158	4210
連續推力 Continuous Force @ Tmax(1)	FC	N	525	870	1290	1720	2570	3465
馬達常數 Motor Constant @25°C	Km	N/√W	28.5	40.8	52.5	62.8	79.5	93.5
Electrical Specifications(2)								
		Winding Code	A1 A2 B2	A1 A2 B2	A1 A2 B2	A1 A2 B2	A2 A1 B2	A1 A2 B2
反電勢 Back EMF Constant@25°C±10%	Ke	Vpeak/m/s L-L	49.7 24.9 14.4	82.9 41.4 23.9	124 62.2 35.9	166 83.1 48	249 124 71.8	332 166 95.7
力常數 Force Constant@25°C±10%	Kf	N/Arms	60.9 30.5 17.6	102 50.8 29.3	152 76.2 44	203 102 58.7	305 152 87.9	406 203 117
電阻 Electrical Resistance@25°C±10%	Rm	Ohms L-L	3.1 0.78 0.26	4.2 1.1 0.35	5.7 1.4 0.48	7.1 1.8 0.59	9.9 2.5 0.83	12.7 3.2 1.1
電感 Electrical Inductance±20%	L	mh L-L	20.6 5.2 1.7	33 8.3 2.8	48.6 12.2 4.1	64.1 16 5.3	95.4 23.9 8	127 31.6 10.5
峰值電流 / Peak Current	Ip	Arms	13.8 27.6 47.8	13.8 27.6 47.8	13.8 27.6 47.8	13.8 27.6 47.8	13.8 27.6 47.8	13.8 27.6 47.8
連續電流 Continuous Current @ Tmax	Ic	Arms	9.9 19.8 34.3	9.9 19.8 34.3	9.8 19.6 34	9.8 19.6 34	9.8 19.7 34.1	9.9 19.8 34.3

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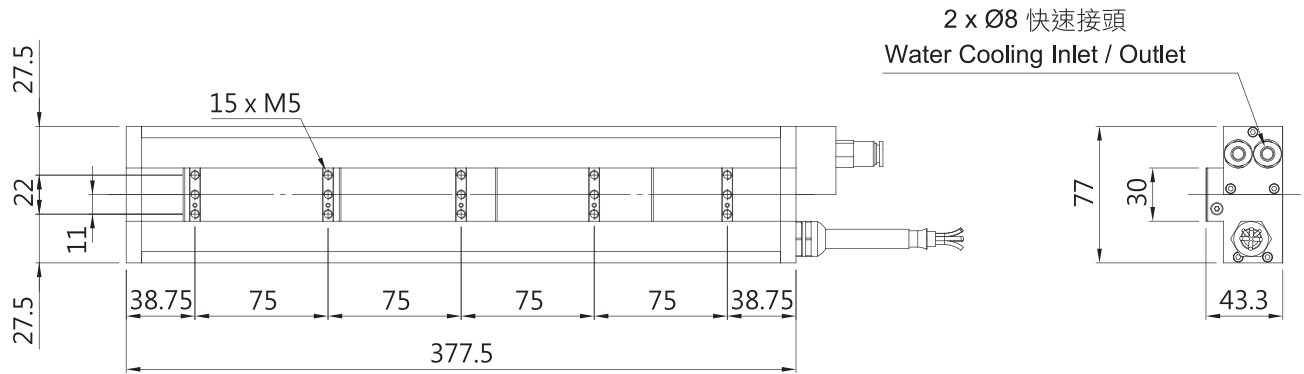


Ironcore Water-Cooled Motors Series

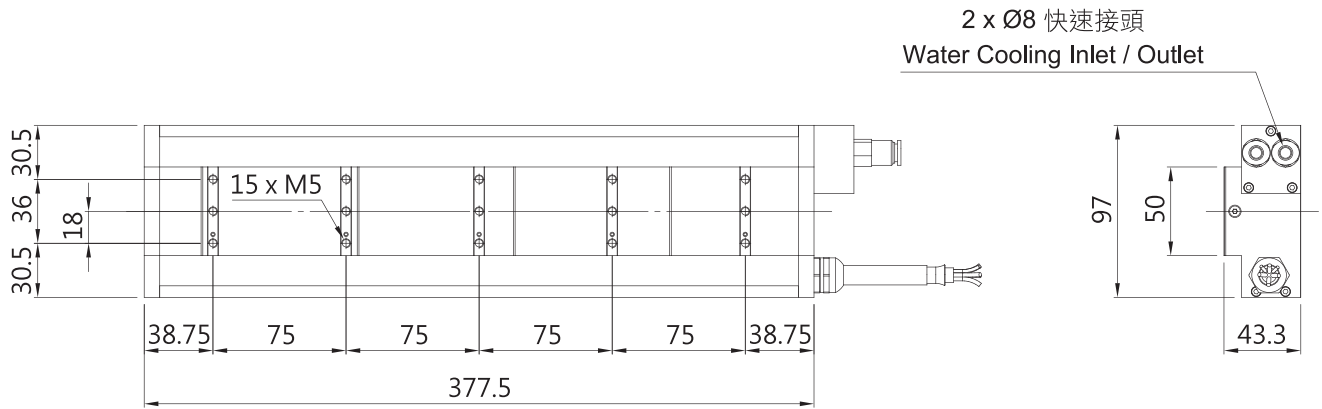
Rated Performance	Symbol	Units	LPM02-030	LPM02-050	LPM02-075	LPM02-100	LPM02-150	LPM02-200
Mechanical Specifications								
線包重量 Coil Assembly Mass±15%	Mc	kg	4.8	6.9	9.6	12.5	18.1	23.7
磁板型號 Magnetic Way Type			LPM030	LPM050	LPM075	LPM100	LPM150	LPM200
磁板重量 Magnetic Way Mass±15%	Mw	kg/m	5.4	7.5	10.1	12.7	20.7	26.8
Figures of Merit and Additional Data								
電氣時間常數 Electrical Time Constant	Te	ms	6.6	7.9	8.5	9	9.6	10
最大加速度 Max.Theoretical Acceleration(3)	Amax	g's	15.9	18.5	19.9	20.4	21.1	21.5
磁性吸力 Magnetic Attraction	Fa	kN	2.9	4.9	7.3	9.8	14.6	19.7
熱電阻系數 Thermal Resistance(4) (coils to external structure)	Rth	°C/Watt	0.16	0.12	0.091	0.073	0.052	0.04
線圈容許最大溫度 Max.Allowable Coil Temp.(4)	Tmax	°C	130	130	130	130	130	130

LINEAR

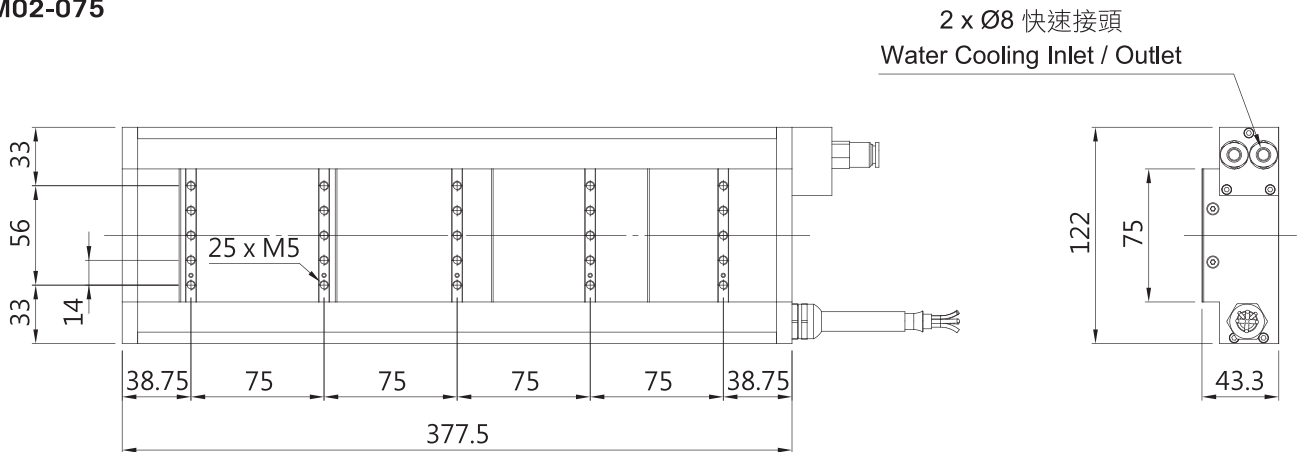
LPM02-030

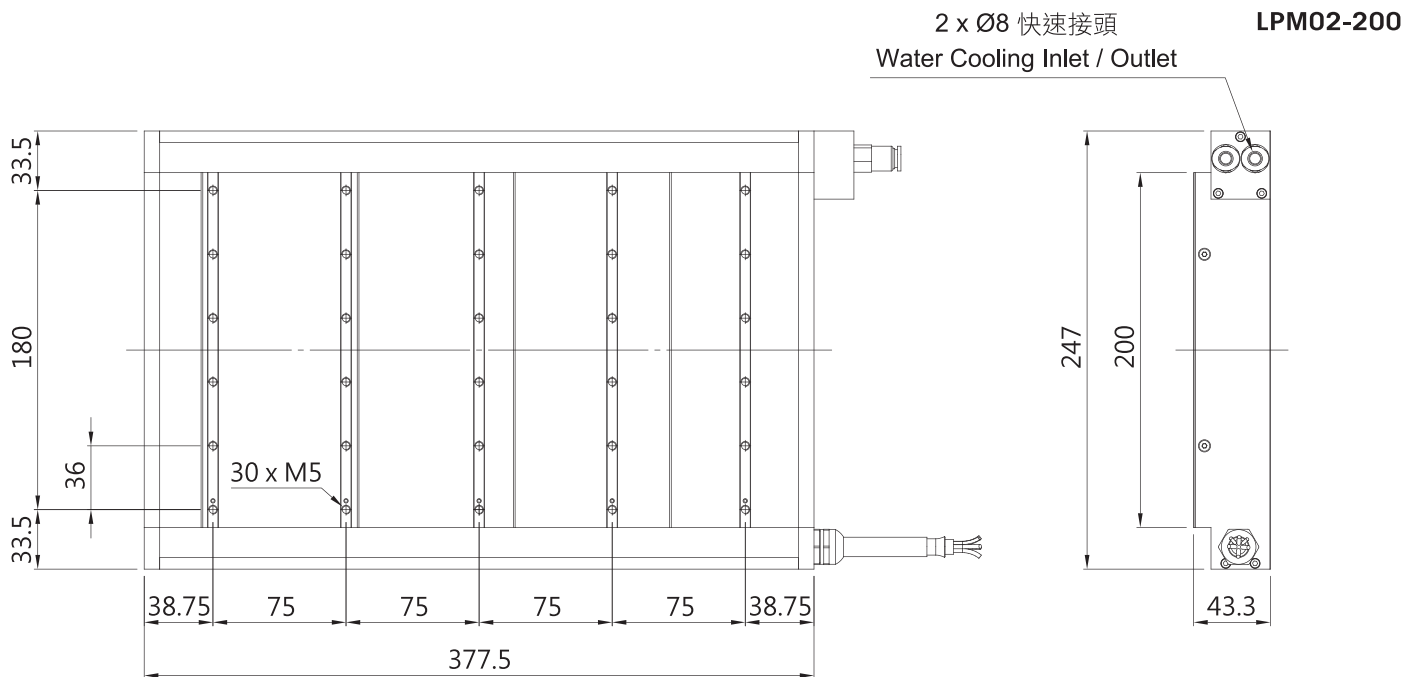
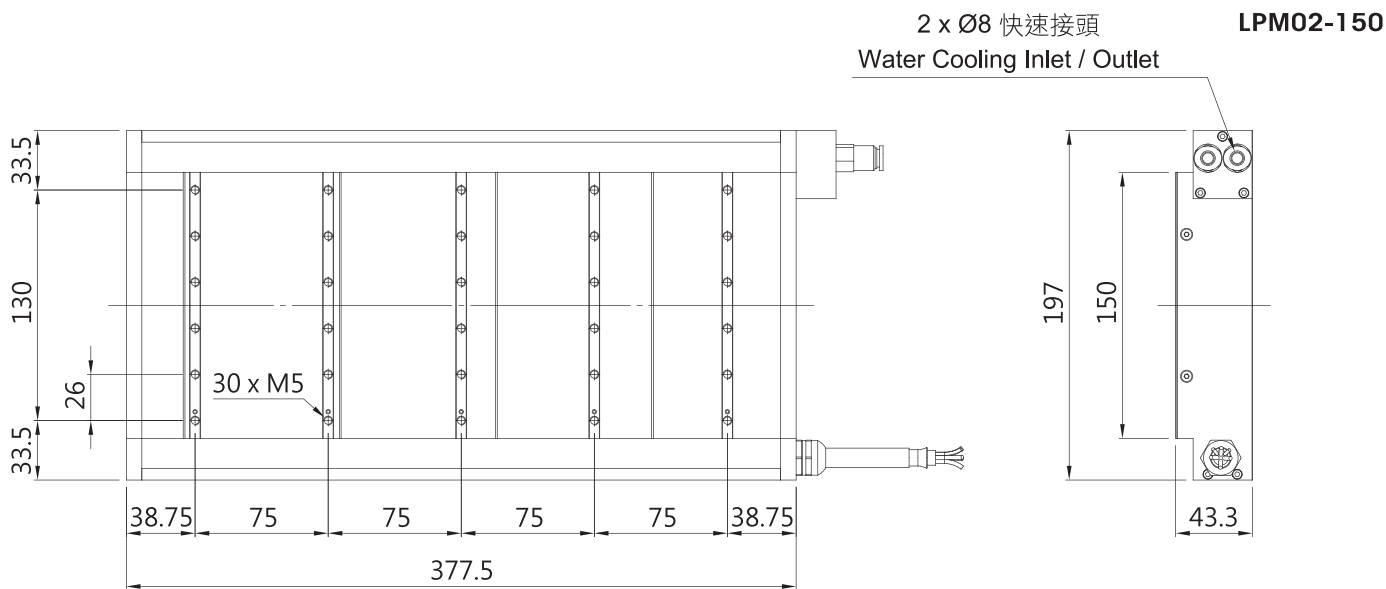
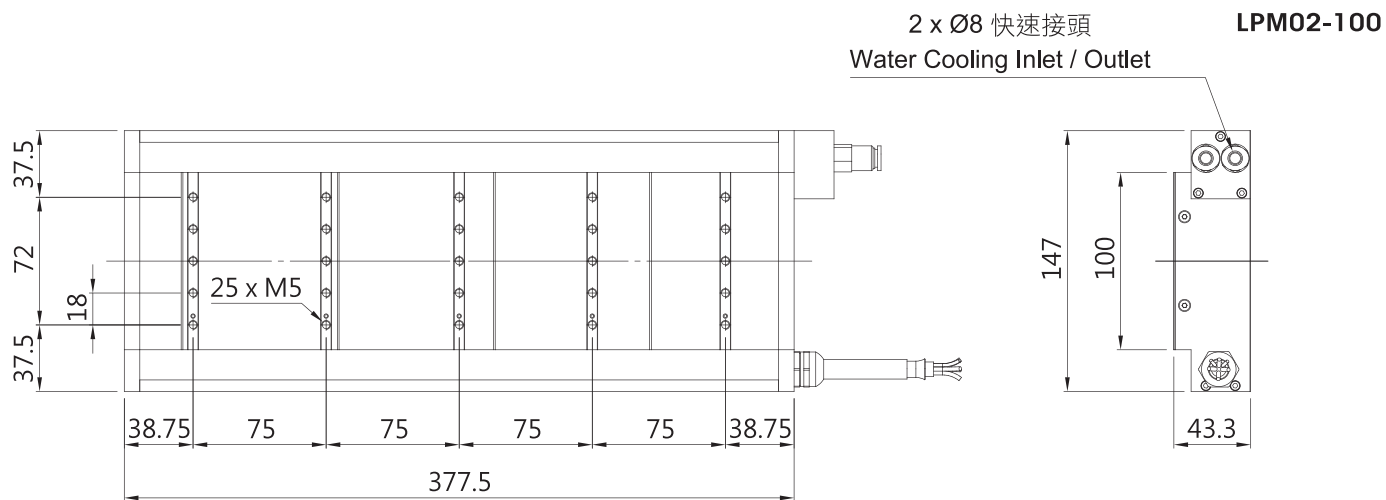


LPM02-050



LPM02-075





LINEAR

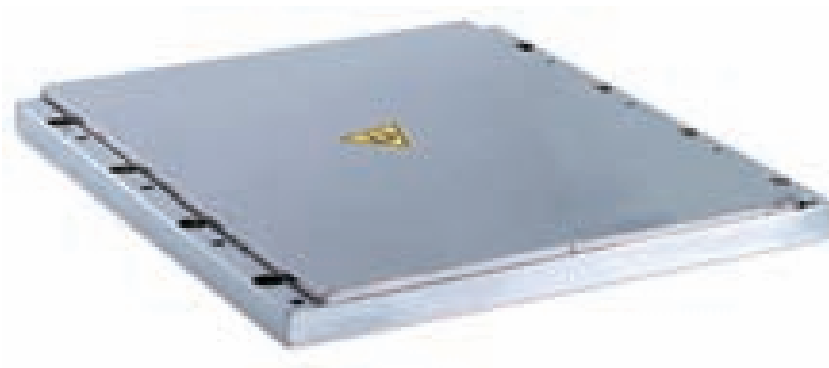


Ironcore Water-Cooled Motors Series

Rated Performance	Symbol	Units	LPM03-030			LPM03-050			LPM03-075			LPM03-100			LPM03-150			LPM03-200		
峰值推力 / Peak Force	FP	N	950			1580			2370			3160			4730			6310		
連續推力 Continuous Force @ Tmax(1)	FC	N	775			1290			1930			2600			3855			5140		
馬達常數 Motor Constant @25°C	Km	N/√W	34.8			49.5			64.5			76.8			97.2			118		
Electrical Specifications(2)																				
		Winding Code	A1	A2	B1	A1	A2	B1	A1	A2	B1	A1	A2	B1	A1	A2	B1	A1	A2	B1
反電勢 Back EMF Constant@25°C±10%	Ke	Vpeak/m/s L-L	74.5	24.8	43	124	41.4	71.7	187	62.2	108	249	82.9	144	373	124	215	497	166	287
力常數 Force Constant@25°C±10%	Kf	N/Arms	91.3	30.4	52.7	152	50.7	87.9	229	76.2	132	304	102	176	457	152	264	609	203	352
電阻 Electrical Resistance@25°C±10%	Rm	Ohms L-L	4.7	0.52	1.6	6.4	0.71	2.1	8.5	0.94	2.8	10.6	1.2	3.5	14.9	1.7	5	19.1	2.1	6.4
電感 Electrical Inductance±20%	L	mh L-L	31	3.4	10.3	49.5	5.5	16.5	73.1	8.1	24.4	96.2	10.7	32.1	143	15.9	47.7	190	21.1	63.3
峰值電流 / Peak Current	Ip	Arms	13.8	41.4	23.9	13.8	41.4	23.9	13.8	41.4	23.9	13.8	41.4	23.9	13.8	41.4	23.9	13.8	41.4	23.9
連續電流 Continuous Current @ Tmax	Ic	Arms	9.8	29.5	17	9.8	29.4	17	9.8	29.4	17	9.9	29.7	17.1	9.8	29.3	16.9	9.8	29.5	17

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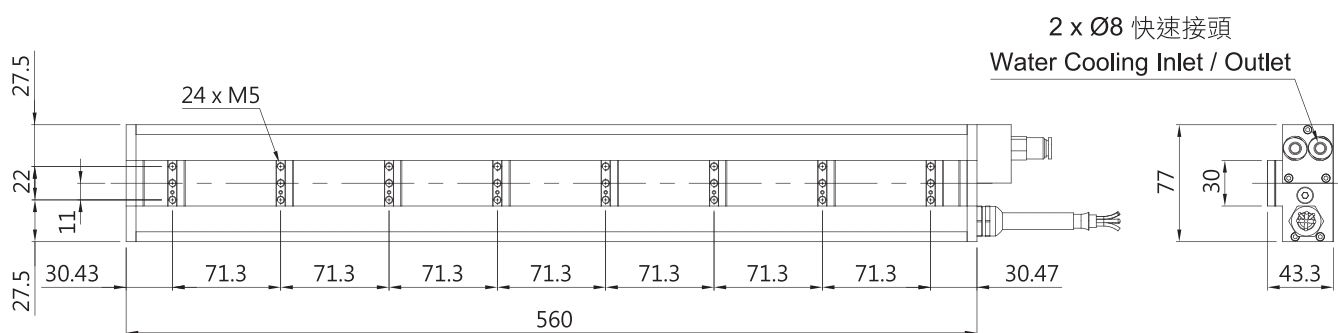


Ironcore Water-Cooled Motors Series

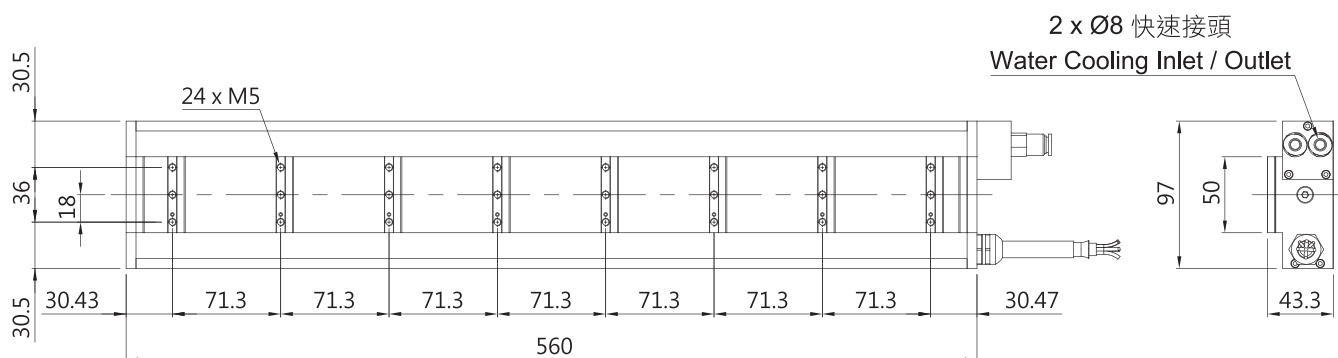
Rated Performance	Symbol	Units	LPM03-030	LPM03-050	LPM03-075	LPM03-100	LPM03-150	LPM03-200
Mechanical Specifications								
線包重量 Coil Assembly Mass±15%	Mc	kg	7.3	10.4	14.4	18.9	27.3	35.7
磁板型號 Magnetic Way Type			LPM030	LPM050	LPM075	LPM100	LPM150	LPM200
磁板重量 Magnetic Way Mass±15%	Mw	kg/m	5.4	7.5	10.1	12.7	20.7	26.8
Figures of Merit and Additional Data								
電氣時間常數 Electrical Time Constant	Te	ms	6.6	7.7	8.6	9.1	9.6	9.9
最大加速度 Max.Theoretical Acceleration(3)	Amax	g's	15.7	18.4	19.9	20.2	21	21.4
磁性吸力 Magnetic Attraction	Fa	kN	4.4	7.4	11	14.7	22.1	29.4
熱電阻系數 Thermal Resistance(4) (coils to external structure)	Rth	°C/Watt	0.11	0.081	0.061	0.048	0.035	0.027
線圈容許最大溫度 Max.Allowable Coil Temp.(4)	Tmax	°C	130	130	130	130	130	130

LINEAR

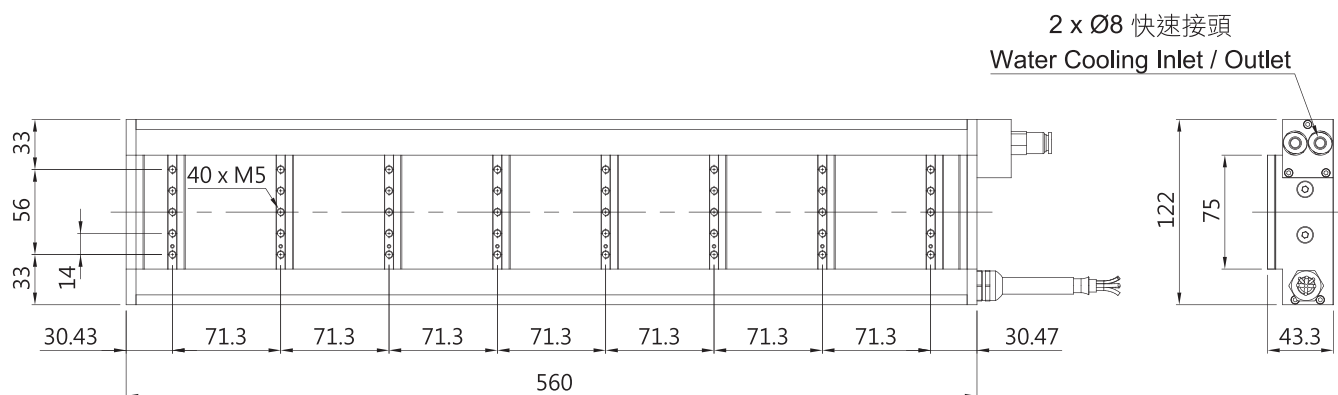
LPM03-030



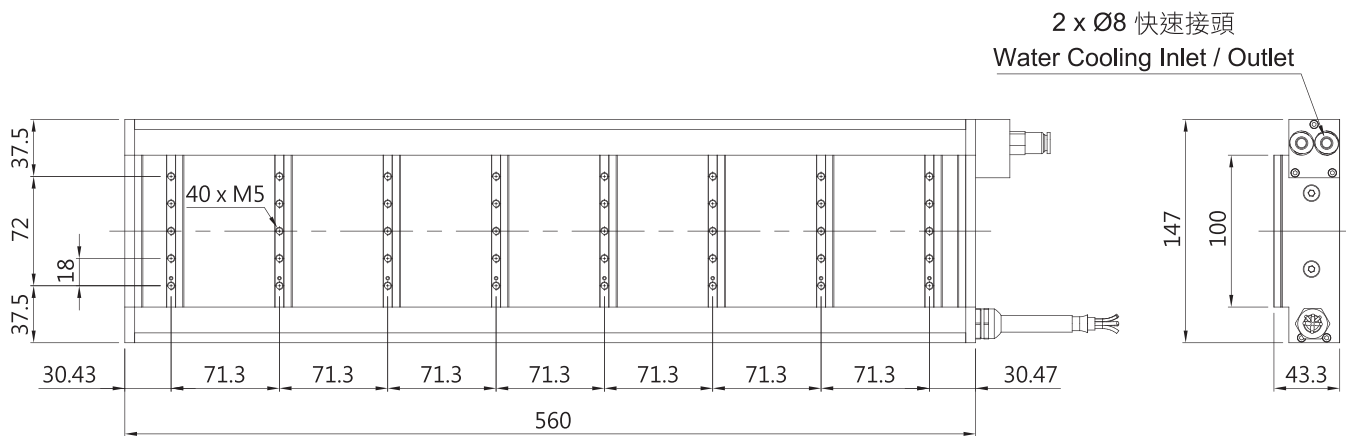
LPM03-050



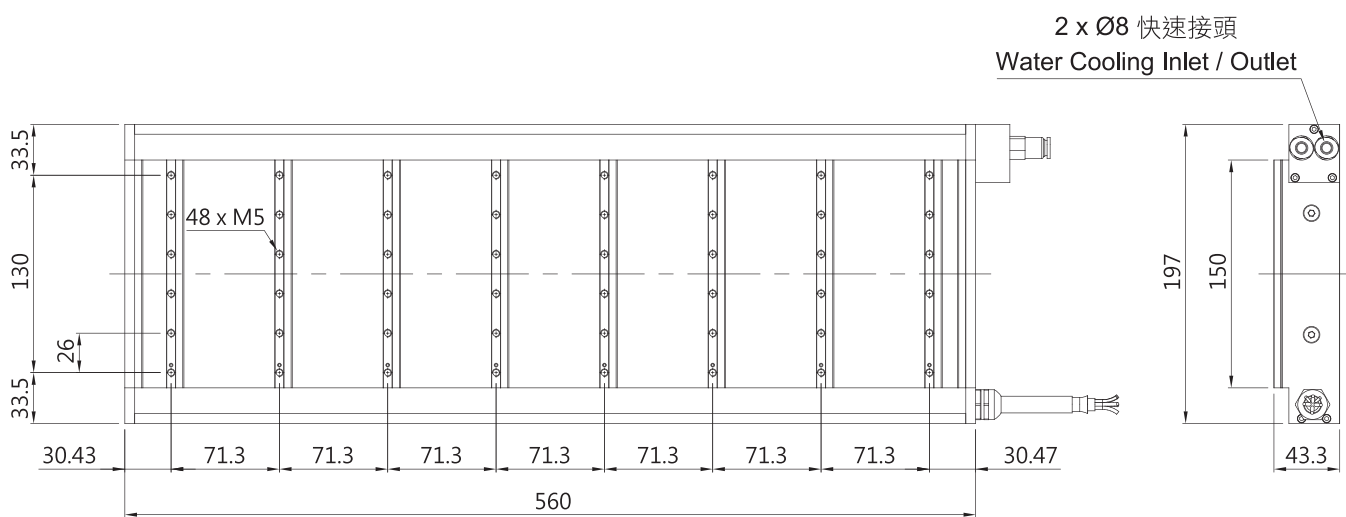
LPM03-075



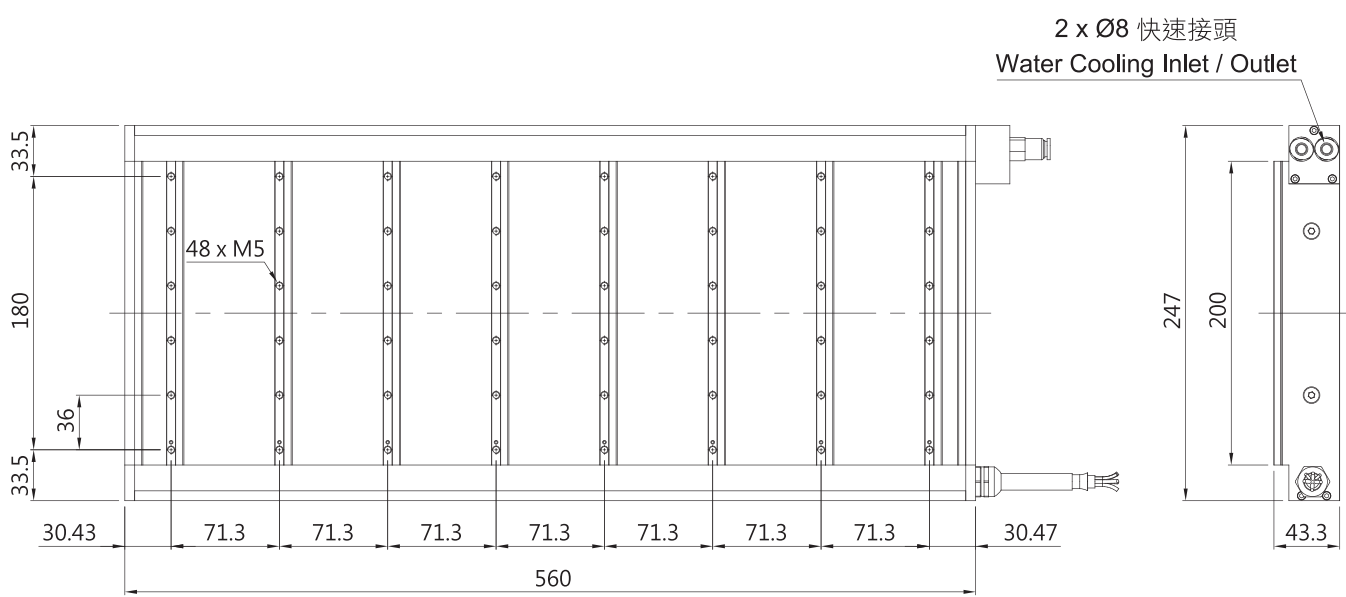
LPM03-100



LPM03-150



LPM03-200



LINEAR

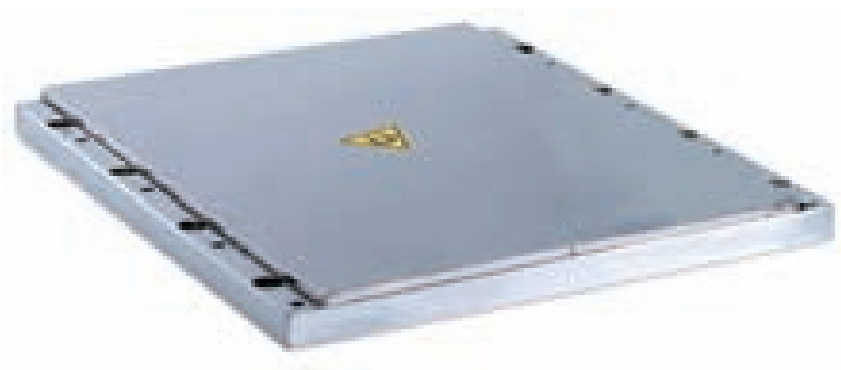


Ironcore Water-Cooled Motors Series

Rated Performance	Symbol	Units	LPM04-030			LPM04-050			LPM04-075			LPM04-100			LPM04-150			LPM04-200		
峰值推力 / Peak Force	FP	N	1265			2105			3160			4210			6310			8415		
連續推力 Continuous Force @ Tmax(1)	FC	N	1040			1715			2570			3460			5140			6920		
馬達常數 Motor Constant @25°C	Km	N/√W	40.2			57			74.2			88.5			112.3			132.2		
Electrical Specifications(2)																				
		Winding Code	A4	A3	A1	A4	A3	A1	A4	A3	A1	A4	A3	A1	A4	A4	A1	A4	A3	A1
反電勢 Back EMF Constant@25°C±10%	Ke	Vpeak/m/s L-L	99.4	49.7	24.8	166	82.9	41.4	249	124	62.2	331	166	82.9	497	249	124	663	332	166
力常數 Force Constant@25°C±10%	Kf	N/Arms	122	60.9	30.4	203	102	50.8	305	152	76.2	406	203	102	609	305	152	812	406	203
電阻 Electrical Resistance@25°C±10%	Rm	Ohms L-L	6.2	1.6	0.39	8.5	2.1	0.53	11.3	2.8	0.71	14.1	3.5	0.88	19.8	5	1.2	25.5	6.4	1.6
電感 Electrical Inductance±20%	L	mh L-L	41.3	10.3	2.6	66.1	16.5	4.1	97.3	24.3	6.1	128	32.1	8	191	47.7	11.9	253	63.3	15.8
峰值電流 / Peak Current	Ip	Arms	13.8	27.6	55.2	13.8	27.6	55.2	13.8	27.6	55.2	13.8	27.5	55.1	13.8	27.6	55.3	13.8	27.6	55.2
連續電流 Continuous Current @ Tmax	Ic	Arms	9.9	19.7	39.5	9.8	19.6	39.1	9.8	19.5	39.1	9.9	19.8	39.5	9.8	19.6	39.2	9.9	19.8	39.6

※ 註：本公司保留針對規格設計的修改權利，如有變更恕不另通知。

The company reserves the right to modify the specifications/design, subject to change without further notice.

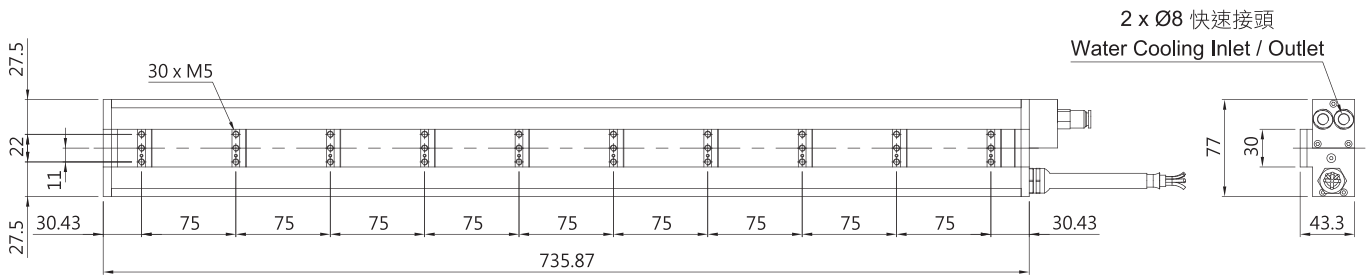


Ironcore Water-Cooled Motors Series

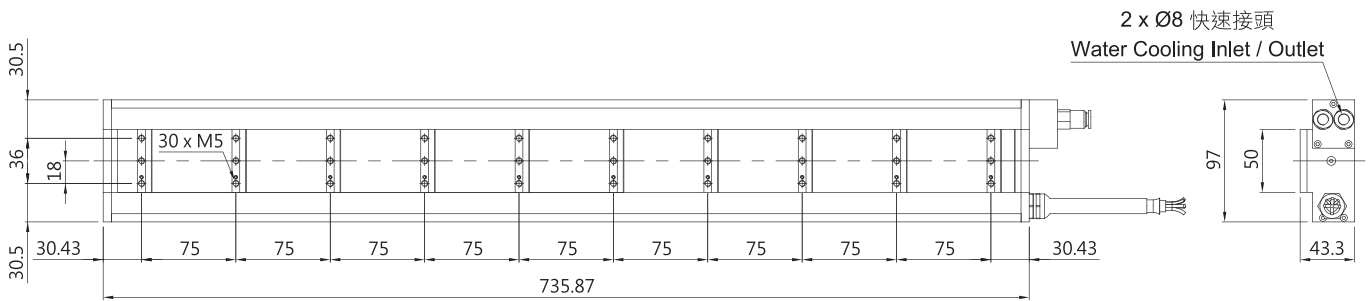
Rated Performance	Symbol	Units	LPM04-030	LPM04-050	LPM04-075	LPM04-100	LPM04-150	LPM04-200
Mechanical Specifications								
線包重量 Coil Assembly Mass±15%	Mc	kg	9.6	13.9	19.2	25	36.2	47.4
磁板型號 Magnetic Way Type			LPM030	LPM050	LPM075	LPM100	LPM150	LPM200
磁板重量 Magnetic Way Mass±15%	Mw	kg/m	5.4	7.5	10.1	12.7	20.7	26.8
Figures of Merit and Additional Data								
電氣時間常數 Electrical Time Constant	Te	ms	6.7	7.8	8.6	9.1	9.6	9.9
最大加速度 Max.Theoretical Acceleration(3)	Amax	g's	15.9	18.3	19.9	20.4	21.1	21.5
磁性吸力 Magnetic Attraction	Fa	kN	5.9	9.8	14.7	19.6	29.4	39.4
熱電阻系數 Thermal Resistance(4) (coils to external structure)	Rth	°C/Watt	0.082	0.061	0.046	0.036	0.026	0.02
線圈容許最大溫度 Max.Allowable Coil Temp.(4)	Tmax	°C	130	130	130	130	130	130

LINEAR

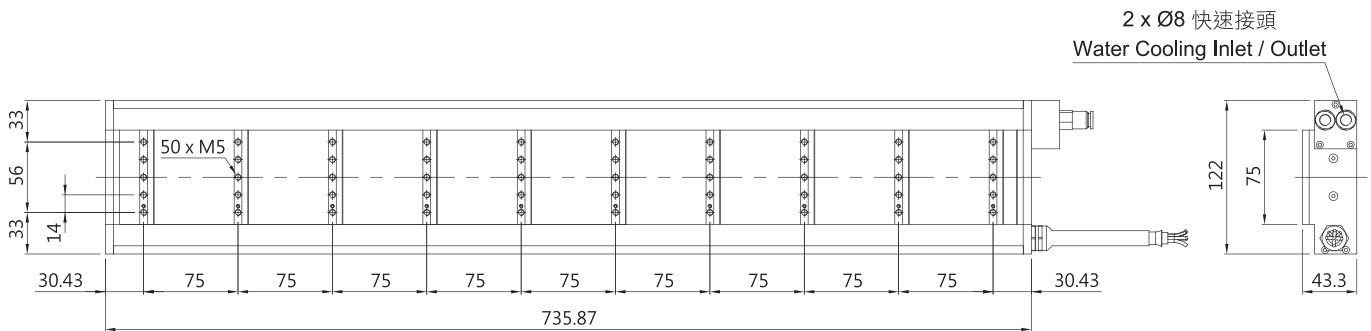
LPM04-030



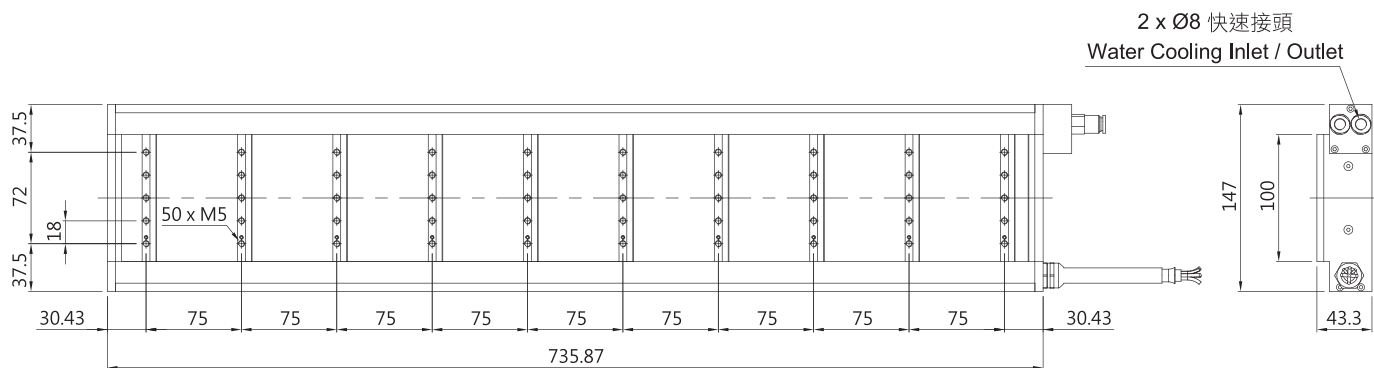
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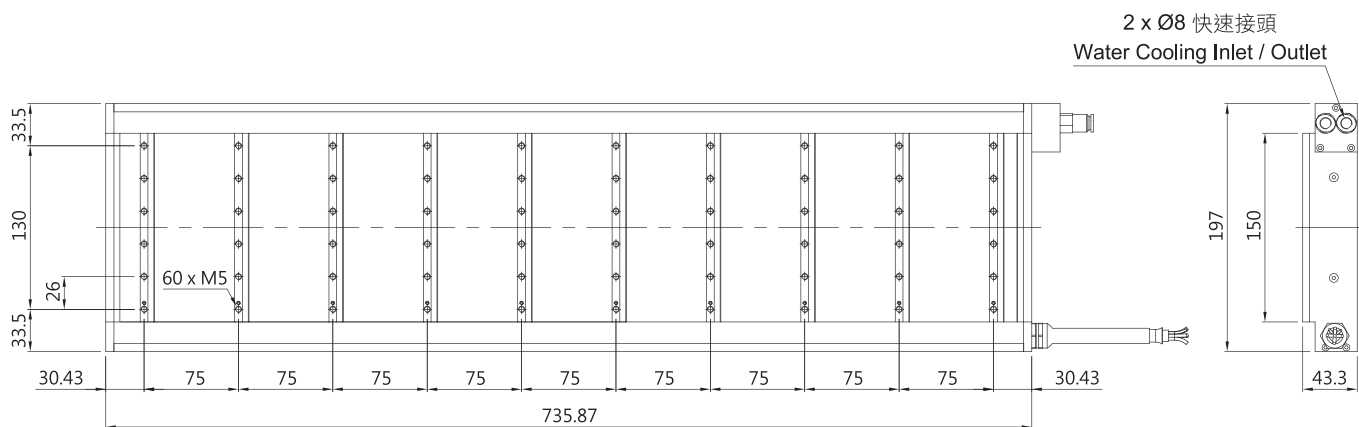
LPM04-075



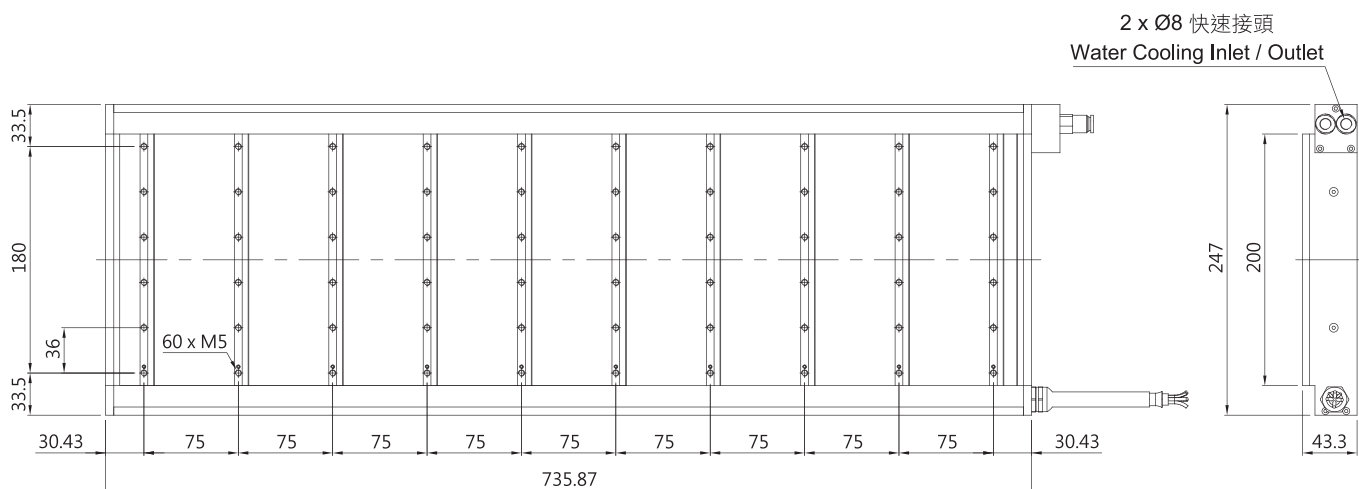
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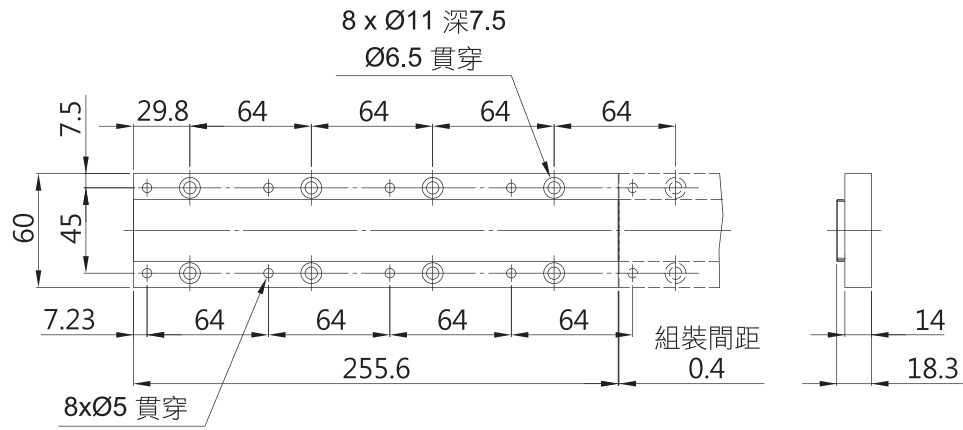
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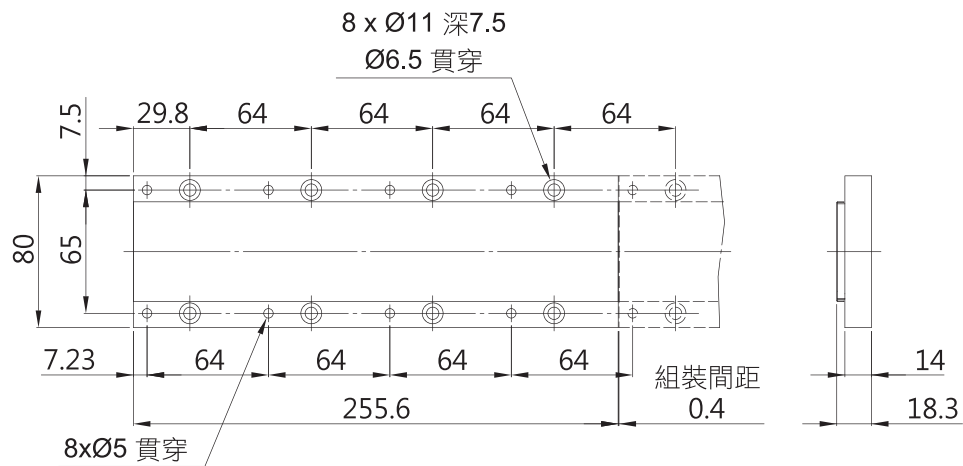
LPM04-200



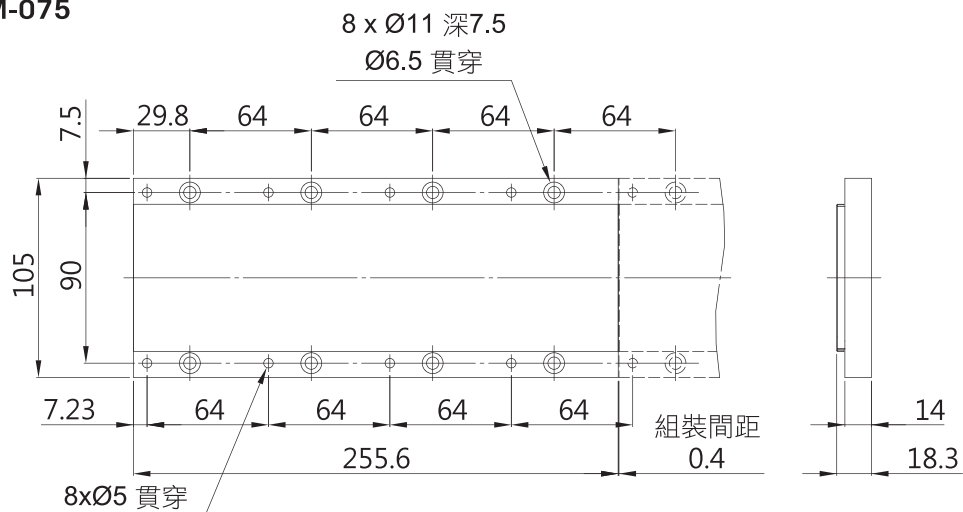
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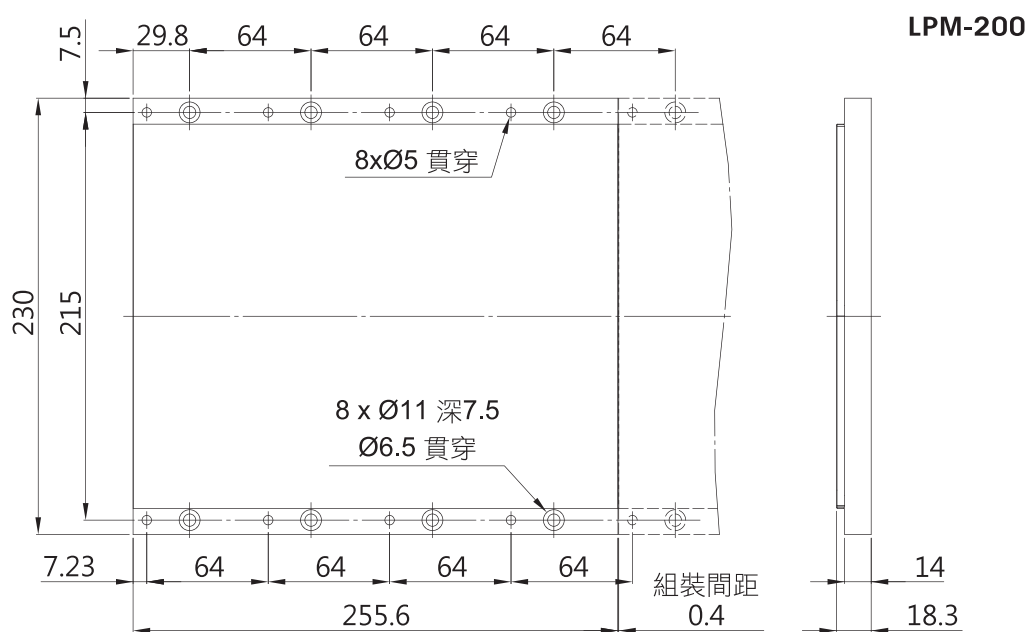
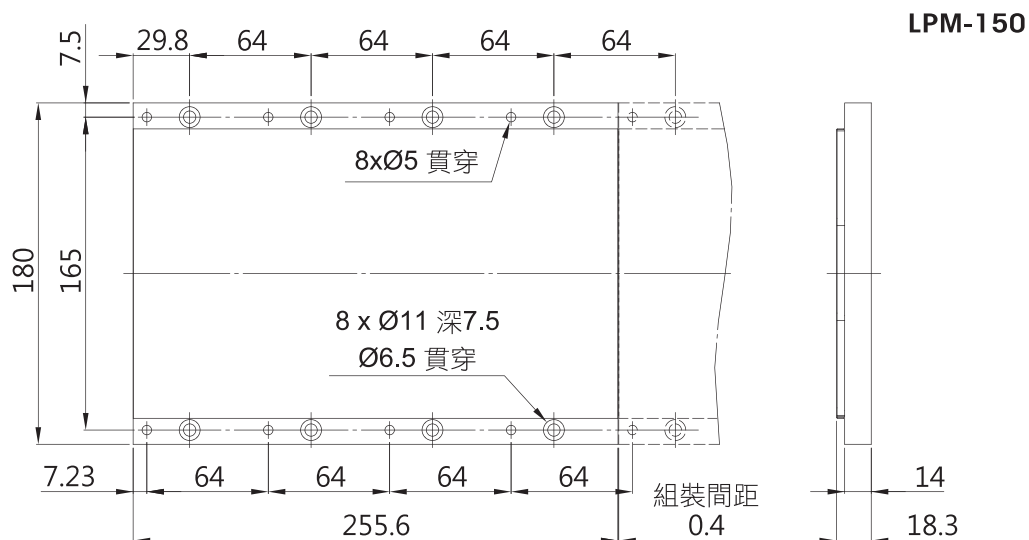
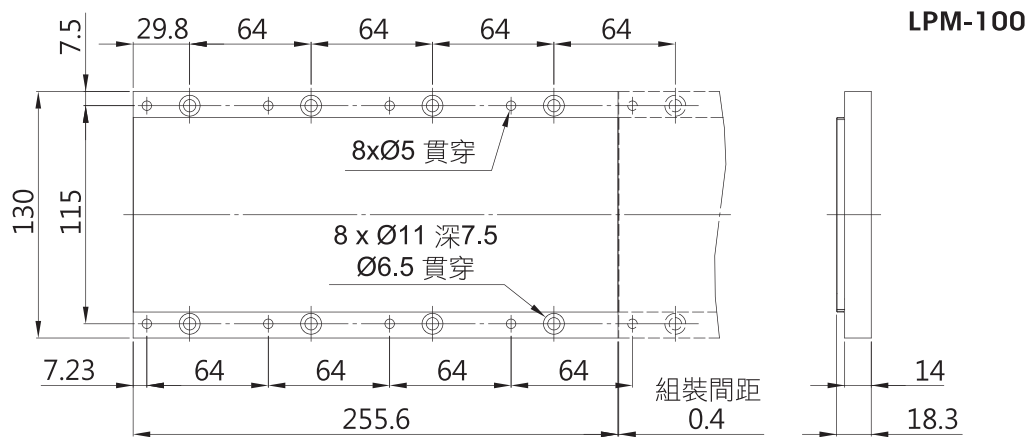


LPM-050



LPM-075





線性馬達特色：

1. 採用鐵心設計，提高線性馬達效率
2. 由於機械接觸較少，直線電機擁有高響應和長期穩定性
3. 高速的動態響應及較高的速度，與滾珠螺桿相比具有較高的移動速度與定位精度

Characteristic

1. With ironcore design, linear motor raise efficiency.
2. Linear motors own higher reflection and long stability because of directly touching less with mechanism
3. Compared higher moving speed and precise position with ball screws, linear motors have high speed's dynamic reflection and precise position.

適用範疇：

- P. C. B 鑽孔機
- 工具機
- 產業機械

Application:

- P.C.B drilling machine
- machine tool
- general industrial machinery







SOLPOWER MACHINE ELECTRONIC CORP.

麗昌機電股份有限公司

No.89, Ln.1005, Sec. 1, Hsinu Rd., Gingshui Dist.,

Taichung City 43641, Taiwan (R.O.C)

43641 台中市清水區和發路一段1005巷89號

TEL: +886-4-2620-2888

FAX: +886-4-2620-2777

www.solpowermotor.com

E-mail: solpower@solpower.com.tw

