



FUKUTA[®]
The Energy Within

FUKUTA SERVO MOTOR
SF/SA/SB/SL
Series



Servo Motor 感應伺服馬達



FUKUTA®

Global Market

全球市場



The Operation Concepts of FUKUTA ELEC. & MACH. CO., LTD.

伺服馬達的特徵



高動態響應

不使用永久磁鐵結構，且由於轉矩及慣量之密切配合之下，又有著低的二次轉子阻抗下，使在所有的速度範圍內有著高的加減速動態特性。

穩定之運轉特性

因轉矩是由感應式電流產生，具有完美磁性分佈之高密度磁通所產生，故藉由保持整個速度域非常低之轉矩漣波而可得到全然穩定之旋轉運動及伺服器動作。

最大與額定轉矩之良好關係

富田感應型伺服馬達有良好之電流峰值及額定電流關係，而產生高比例之最大轉矩，甚至在轉矩與體積重量關係密切，而允許有緊密的運用和最好的空間運用率。

堅固簡單不需保養

因沒有永久磁鐵，故它沒有減磁，即因震動或撞動（特別適用於移動機器）造成破損之危險，它不須偵測磁極位置，因磁通方向是由電壓來決定，在馬達軸心裝上編碼器，回授可精確控制速度位置，因它沒有集電器，碳刷或磁鐵，故它是非常穩固簡單且可靠的。

High Dynamical Response

The induction-type servomotor doesn't use permanent magnets. The high relation between torque and inertia-together with a low secondary impedance of the rotor enables high dynamical performances with considerable acceleration and deceleration available over all speed ranges.

Stable Operation Performance

The variation of speed is obtained through absolute stable rotary motion and servo-action by reducing the torque ripple over entire speed range. Since the torque is generated by a high-density flux with perfect magnetic distribution drove from the induced sinusoidal current.

Excellent Relation Between Maximum And Ratedtorque

The FUKUTA servomotor enables a high relation between peak and rated current, so produces high rates of maximum toque. Furthermore, the servomotor presents an extremely perfect relation between torque and volume/weight which permits compact applications and best use of available space.

Sturdy & Simple Construction Not Requiring Maintenance

Since the FUKUTA servomotors do not have permanent magnets, there's no risk of demagnetization, of breakage due to fragility from vibrations or impacts, especially for the servomotors used on moving machines. Moreover, the position of magnet poles are unnecessary to be detected for driven because the direction of magnetic flux is determined by the voltage. The use of encoder sets on the motor shaft feedback for controlling of the speed and position with accuracy. The structure, therefore, is extremely simple, sturdy & reliable and does not require any maintenance, since there are no collectors, brushes or magnets.

框架

以先進之規範及技術製成，由於有非常密實之大小尺寸及輕重量，而有非常突出之機械精度及強度，馬達尺寸從 F#80 到 F#132 為止是鋁擠型設計，外形方正，並提供內部通風道以確保高散熱及降低共振，含 F#132 以上至 F#280 之規格採用積片式設計作為馬達的中心軀幹，增加定子發熱源與外部空氣接觸之散熱面積，並在內部設計通風孔來提供馬達較佳之散熱能力。

保護

採 IP54 可依要求提供更高之保護等級。

定子

具低功率損失之特殊鐵心疊片，特殊之幾何結構確保在運轉時有優良之特性及安靜的運轉。

繞組

縮短結矩之雙層繞組，決定了它在 FEM 曲線上之優勢，因其在諧波頻率及其他的阻尼作用上做了一些限制，系統用 H 級絕緣且結構上承受來自於變頻器作用在伺服器馬達產生之熱量，電動應力及電流衝擊，這些材料選擇及含浸方式而允許使用具有高度溼、高溫度之熱帶地區；另對於高腐蝕性環境之特殊處理也可提供。

轉子

為鋁壓鑄設計、轉子重量已減輕以使慣量到更低，具有傾斜的鋁籠及適當之槽型以保有良好的特性（甚至在低速時）及免除了在表層之溫度及脈動轉矩。

平衡

依 ISO 2373 R 級，連同鍵一起作動力平衡，已完全免除振動（甚至在高速）。對於特殊用途可依需求作 S 級平衡校正。

軸承

此球型軸承適合於高速，且以特殊用油脂潤滑，以保證在高速及高溫下之運作。

熱保護

藉由 3 個雙金屬片熱開關，提供熱保護，其為串接方式並且附於繞組上。接點在正常下為接合的，當繞組溫度到達對絕緣有危險時予以打開。

通風

採輔助風扇通風，其風量穩定而與馬達轉速無關，此保證了在任何操作條件下良好冷卻，如此，在低額定及低峰值電流之伺服馬達可以被使用，甚至在非常低的速度下也可有大的定轉矩區，而不必降低責任週期因素。

編碼器

標準結構具有一空心軸，並且以鋁外殼包覆，以確保適當之結構保護，電力之連接是使用 10-PIN 銷之連接頭。

Housing

It is made with advanced criteria and technology. The compact size and light weight structure, offers outstanding mechanical precision and strength. The motor size from F#80 to F#132 is aluminum extrusion design with a square shape. In addition, internal ventilation channels are provided to ensure high heat dissipation and reduce vibration. For specifications from F#132 to F#280, the laminated frame design is used as central body could increase the heat dissipation area of the stator heating source in contact with the outside air. Moreover, the intimal ventilation channels provides better heat dissipation capacity.

Protection

All the servomotors are built in IP23 / IP54 protection. Superior grades can be supplied on request.

Stator

It consists of special laminations with low powerless having a special geometry in order to provide good performances and silent run during operation.

Winding

With double layer of shortened pitch, it determines advantages in the F. E. M. curve due to the effect of elimination of some of the harmonic and damping of others. The structure of FUKUTA servomotors adopts H class insulation and supports the thermal, electrodynamical stress and inrushing current that is supplied by inverter. The choice of these materials and the method of soak permit using of the servomotors in tropical climate with considerable thermal amplitudes at high humidity degrees. Special treatment for very corrosive ambiance can be supplied on request.

Rotor

The rotor is of die-cast aluminum design and has been lightened so to reduce the rotor inertia to a minimum. The rotor consists of a cage with inclination, number of slots and a suitable shape to enable perfect operation also at very low speed and to reduce temperature on surface layer and furthermore avoid cogging torque.

Balancing

Balancing is carried out dynamically with an integer key according to ISO 2373 grade R to suppress vibration also at high speed. On request, for special applications balancing according to grade S can be carried out.

Bearings

The ball-type bearings are suitable for high speed and lubricated with special greases that offer best response to high speed and temperature.

Thermal Protections

The servomotors are provided with a thermal protection by means of 1 metallic double-slices thermal switch, which are connected in series and incorporated in the windings. The contact is normally closed (NC), and it opens when the temperature of the windings reaches a temperature which is dangerous for the insulating system.

Ventilation

Ventilation is obtained by an auxiliary electric fan which generates a constant air-flow and independent of the speed of the servomotors. This ensures an excellent cooling in any operating condition. In this way, low rate & low peak-current servomotors can be chose. Even at low speed, it still can offer a wide constant-torque range without reducing the duty cycle.

Encoder

The standard configuration provides a hollow shaft and is housed in an appropriate aluminum case to ensure strong mechanical protection. As to the electrical connection, a 10-PIN connector is used.



The Operation Concepts of FUKUTA ELEC. & MACH. CO., LTD.

經營理念 / 公司沿革

INTRODUCTION

創新

積極創新，追求顧客滿意及公司永續繁榮。時時刻刻，力求創新，以顧客需求為導向，提供顧客滿意之產品與服務進而有效地創造利潤，促使公司永續繁榮。

熱忱

熱忱互助，共同達成顧客、公司與個人三贏之目標。尊重人性，塑造和諧明朗的工作環境；熱忱互助，關懷顧客，關心同事，共創顧客、公司、個人三贏之榮景。

誠信

誠信踏實，以優良的產品與服務貢獻社會。因應社會需求本乎誠信踏實之原則，持續致力於提供更好品質，更低成本之產品與服務，以貢獻社會。

INNOVATION is to create aggressively, pursue customers satisfaction and maintain the company's everlasting prosperity. We strive for creativity and innovation at all time. Based on the concept of customer-oriented, we provide satisfying products and service to our customers so that we can make profits efficiently and maintain the company's substantial prosperity.

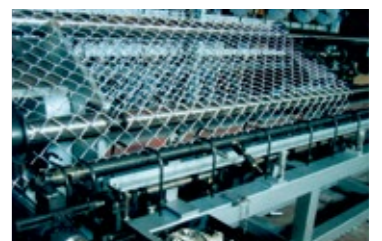
ENTHUSIASM is to help each other enthusiastically and achieve the win-win goals of customers, company, and individuals. We respect humanity and make a harmonious work environment. Helping each other enthusiastically means to care about our customers and colleagues so that we can have prosperous future of customers, company, and individuals.

HONESTY is to offer the society excellent products and service. In order to meet the demands of society, we continue to make efforts based on the honest principle to provide services and products of best quality and less cost so as to make contributions to the society.



HISTORY

- 1988年 4月公司成立。
- 1990年 投資成立矽鋼片沖壓廠，朝向垂直整合經營模式。
- 1993年 全國第一家投入研發「變頻專用馬達」。
- 1996年 通過 ISO-9002 國際品質驗證。
- 1997年 全國第一家投入研發「交流感應伺服馬達」。
- 1998年 (1). 取得經濟部工業局主導性新產品「交流感應伺服馬達」之補助案。
(2). 全系列產品通過 CE MARK 歐洲安規認證。
- 2000年 (1). 「交流感應伺服馬達」榮獲第九屆台灣精品標誌及優良設計標誌。
(2). 投資成立高精度低背隙減速機製造廠(寰宇精密股份有限公司)，朝向水平整合經營模式。
- 2001年 (1). 「變頻專用馬達」榮獲第十屆台灣精品標誌。
(2). 「100HP 及 150HP 感應伺服馬達」獲得經濟部技術處 SBIR 計畫補助。
(3). 全系列產品通過 CSA 加拿大及美國安規認證。
- 2002年 (1). 「積片式伺服馬達」榮獲第十一屆台灣精品標誌。
(2). 榮獲台中縣第一屆金手獎表揚。
(3). 通過 ISO-9001 國際品質認證。
- 2003年 (1). 「變速鋼索吊車專用馬達」獲得經濟部工業局 CIRD 計畫補助。
(2). AEEH/AEVH/AMEH/AMVH 系列通過中華民國高效率感應馬達認證。
(3). 「變速鋼索吊車專用馬達」榮獲第十二屆台灣精品標誌。
- 2004年 (1). 「250HP 及 400HP 感應伺服馬達」獲得經濟部技術處 SBIR 計畫補助。
(2). 「感應伺服馬達 Frame 225」榮獲第十三屆台灣精品標誌。
- 2005年 (1). 與日本、美國電動車廠分別簽訂「風力發電機、轎跑車馬達(全電式)」技術合作案。
(2). 投資成立上海鑫永電機科技有限公司(上海市奉賢區柘林鎮)，朝向跨國整合經營模式。
- 2006年 (1). 標準馬達全系列通過中華人民共和國 CCC 強制性產品認證。
(2). 榮獲經濟部技術處 SBIR 計畫 2004 年度績優執行廠商表揚。
(3). 與高雄應用科技大學電機系合辦產業研發碩士專班。
(4). 榮獲經濟部技術處 2006 年度產業創新成果表揚。
(5). 投資成立金富田科技股份有限公司，朝向環保及能源領域整合經營模式。
(6). 投入高速主軸伺服馬達整合與製造。
- 2008年 取得經濟部工業局主導性新產品「5kw 垂直風力發電機」之補助案。
- 2009年 (1). 金富田科技股份有限公司購置台中縣豐洲科技園區土地，預計建置電動馬達馬達專業製造廠。
(2). 金富田科技股份有限公司參與裕隆公司主導電動車(Luxgen)業界科專計畫。
- 2010年 (1). 投資成立矽鋼片沖壓廠，朝向垂直整合經營模式。
(2). 推動電動車先進動力系統研發聯盟計畫。
- 2011年 (1). 協助美國電動大廠核心產品測試量產。
(2). 榮獲經濟部技術處「第一屆國家產業創新獎」。
- 2012年 (1). 參與台中地方產業創新研發推動計劃。
(2). 永磁同步伺服開發。
(3). PM 永磁同步伺服量產。
(4). 以馬達轉子榮獲國家發明創作獎之創作金牌獎。
(5). 榮獲美國電動車大廠 全球最佳供應商獎。
(6). 榮獲經濟部第一屆卓越中堅企業入圍廠商。
- 2013年 (1). 榮獲經濟部第二屆卓越中堅企業及重點輔導對象。
(2). 參與經濟部工業局主導性新產品電動清潔車計畫開發計畫。
(3). 取得德國 TUV SUD IE3 高效率馬達專利認證。
(4). 電動載具專用製造廠啟用。
- 2014年 (1). 擔任經濟部工業局電動車主題或研發專案電動大客車共用動力計畫 主導廠商。
(2). 榮獲經濟部第 24 屆國家磐石獎。
(3). 榮獲經濟部外銷績優中小企業第 18 屆小巨人獎。
- 2015年 (1). 擔任經濟部工業局電動車主題或研發專案電動大客車共用動力計畫 主導廠商。
(2). 榮獲經濟部第 24 屆國家磐石獎。
(3). 榮獲經濟部外銷績優中小企業第 18 屆小巨人獎。
- 2016年 新竹科學園區銅鑄廠區-專用電動載具量產生產廠區動工，預計 2019 年興建完成。
- 2017年 取得全球汽車產業 TS-16949 品質管理系統認證。
- 2018年 銅鑄廠區第一期廠房正式啟用。
- 2019年 取得 IATF 16949 認證。
- 2020年 取得 UL 認證。



Catalogue

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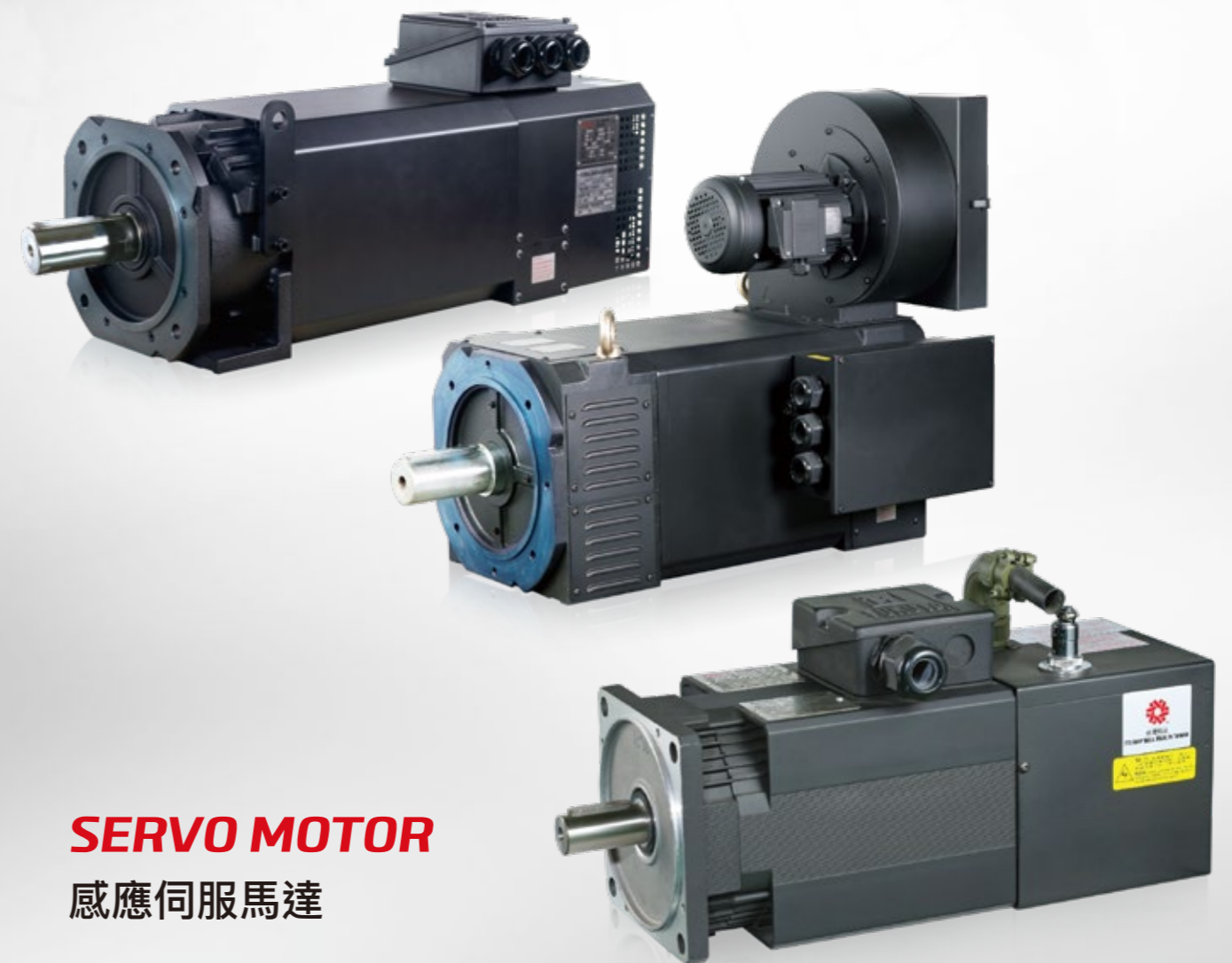
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● 若須更詳細資料，請洽各行銷人員

Servo Motor

SF/SA/SB/SL Series



SERVO MOTOR

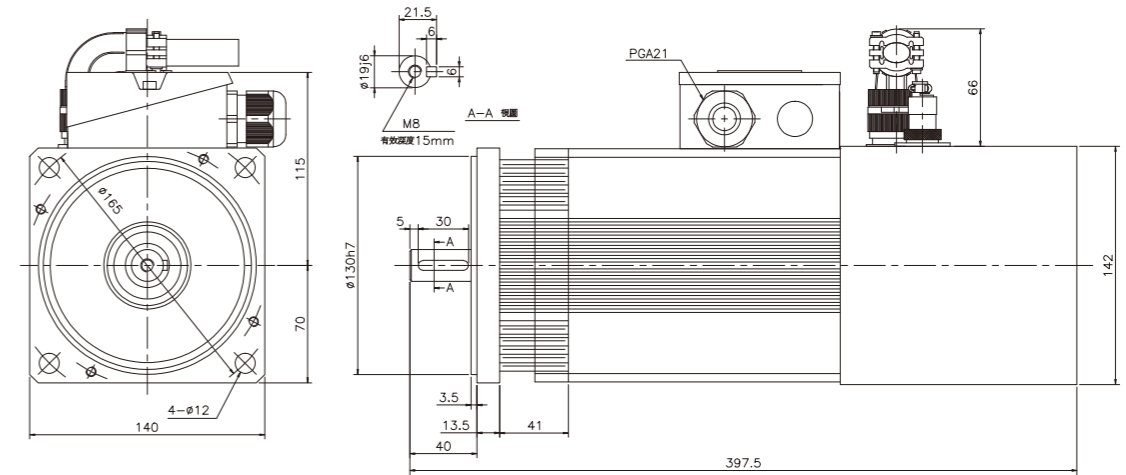
感應伺服馬達

Servo Motor

感應伺服馬達

MODEL

SF-80



產品規格 Standard

輸出 Output (kw)	0.75	1.1
框號 Frame No.	80LA	80LB
效率 Efficiency (%)	82.3%	83.3%
功因 Power Factor	0.824	0.856
R1(Ω) @25°C	6.548	4.500
極數 Poles	4	4
轉動慣量 Rotor Inertial (kg-m ²)	0.0020	0.0025
激磁電流 Magnetizing Current (A)	2.0	2.4
額定轉速 Rated Speed (rpm)	2000	2000
最高轉速 Max. Speed (rpm)	8000	8000
重量 Weight (kg)	13.0	14.4
編碼器 Encoder	1024PPR RS422(Line-drive)/Push-Pull	
風扇 Elec.Fan	1ø 230V 50/60Hz 45/39W	
軸承 Bearings	LS:6206C3	OS:6205C3

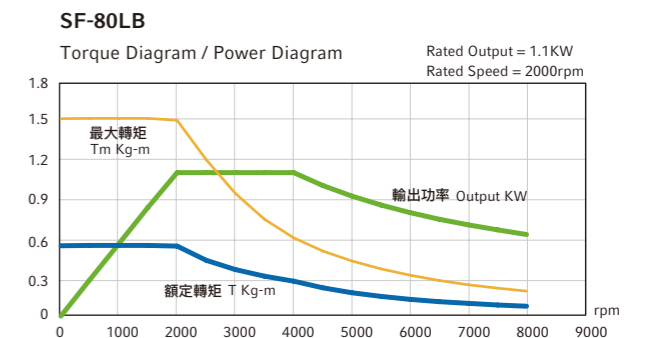
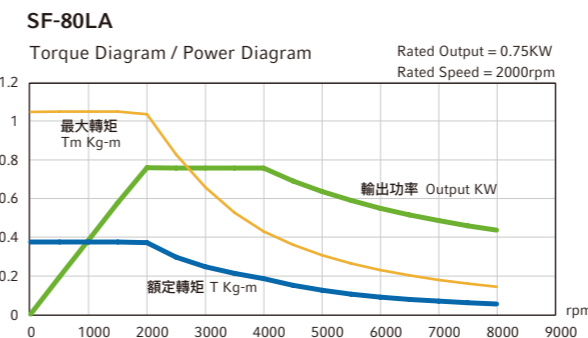
* 編碼器之選用依需求為主

一般條件 General Data

安裝方式 Mounting	IM 3001 (B5)
保護方式 Protection	IP54
轉子平衡 Rotor Balancing	R 級 (ISO2373) R Degree
絕緣等級 Insulation	H 級 Class H
冷卻系統 Cooling Sys.	強制通風 Forced Air Cooled
熱保護 Thermal Protection	熱保護器 (常閉) Thermal Protector (NC)
噪音 Noise	80dBA
周溫 Ambient Temp.	-15°C ~ 40°C
高度 Altitude	海拔 1000 米 1000m ASL
溫度感測器 Temperature sensor	KTY-84
服務係數 S.F	1.15

FUKUTA® 伺服馬達規格之選用

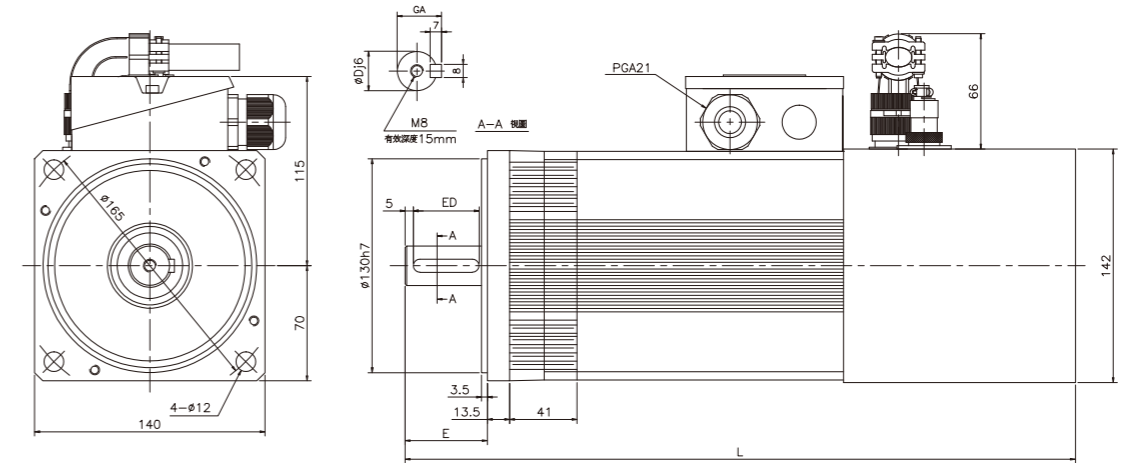
框號 Fr. No.	額定輸出 Rated Output	額定轉速 Rated Speed	最大轉矩 Max. Torque	額定轉矩 Rated Torque	額定電流 Rated Current				額定頻率 Rated Frequency
					190V	220V	330V	380V	
SF-80LA	0.75	2000	1.04	0.37	3.4	3.0	1.9	1.7	69.5
	1.1	3000	1.01	0.36	4.9	4.3	2.9	2.5	102.7
	1.4	4000	0.97	0.35	6.6	5.1	3.8	3.0	136.0
SF-80LB	1.1	2000	1.52	0.54	4.7	4.2	2.7	2.4	70.0
	1.6	3000	1.47	0.52	7.1	6.0	4.1	3.4	102.9
	2.1	4000	1.45	0.52	8.8	7.8	5.1	4.5	136.6



Servo Motor

感應伺服馬達

MODEL
SF-90



	E	ED	D	GA	L
90MA	50	40	24	27	408
90MB	50	40	24	27	433
90L	60	50	28	31	508

產品規格 Standard

輸出 Output (kw)	1.5	2.2	3.7
框號 Frame No.	90MA	90MB	90L
效率 Efficiency (%)	83.8%	83.7%	84.3%
功因 Power Factor	0.854	0.88	0.894
R1(Ω) @25°C	3.257	2.258	1.321
極數 Poles	4	4	4
轉動慣量 Rotor Inertial (kg-m ²)	0.003	0.0038	0.0059
激磁電流 Magnetizing Current (A)	3.2	3.9	6.1
額定轉速 Rated Speed (rpm)	2000	2000	2000
最高轉速 Max. Speed (rpm)	8000	8000	8000
重量 Weight (kg)	16.4	18.9	26.0
編碼器 Encoder	1024PPR RS422(Line-drive)/Push-Pull		
風扇 Elec.Fan	1ø 230V 50/60Hz 45/39W		
軸承 Bearings	LS:6206C3	OS:6205C3	

* 編碼器之選用依需求為主

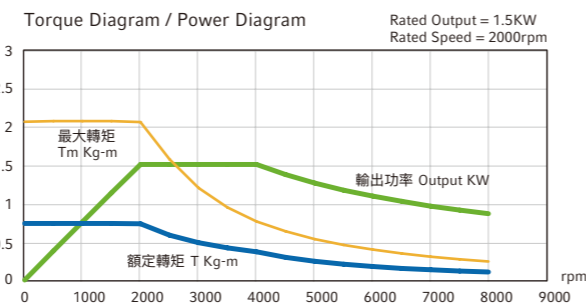
一般條件 General Data

安裝方式 Mounting	IM 3001 (B5)
保護方式 Protection	IP54
轉子平衡 Rotor Balancing	R 級 (ISO2373) R Degree
絕緣等級 Insulation	H 級 Class H
冷卻系統 Cooling Sys.	強制通風 Forced Air Cooled
熱保護 Thermal Protection	熱保護器 (常閉) Thermal Protector (NC)
噪音 Noise	80dBA
周溫 Ambient Temp.	-15°C ~ 40°C
高度 Altitude	海拔 1000 米 1000m ASL
溫度感測器 Temperature sensor	KTY-84
服務係數 S.F	1.15

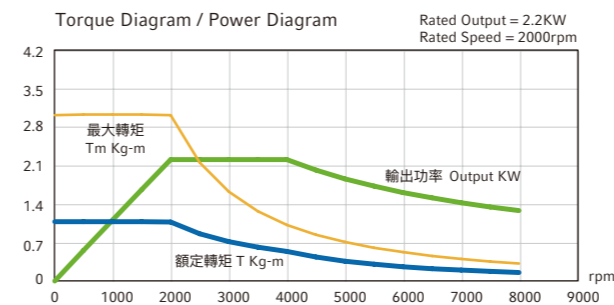
FUKUTA® 伺服馬達規格之選用

框號 Fr. No.	額定輸出 Rated Output	額定轉速 Rated Speed	最大轉矩 Max. Torque	額定轉矩 Rated Torque	額定電流 Rated Current				額定頻率 Rated Frequency
					190V	220V	330V	380V	
SF-90MA	1.1	1500	2.01	0.72	5.1	4.4	3.0	2.6	52.6
	1.5	2000	2.06	0.74	6.4	5.6	3.7	3.2	69.9
	2	3000	1.83	0.65	8.5	7.4	4.9	4.3	102.9
SF-90MB	2.5	4000	1.72	0.61	10.4	9.2	6.0	5.3	136.2
	1.6	1500	2.92	1.04	7.1	6.3	4.1	3.6	53.0
	2.2	2000	3.02	1.08	9.1	8.0	5.2	4.6	70.5
SF-90L	3	3000	2.88	0.98	12.3	11.3	7.1	6.5	103.3
	4.2	4000	2.77	1.02	16.5	14.3	9.5	8.2	137.1
	2.7	1500	4.92	1.76	11.9	10.3	6.9	5.9	52.8
SF-90L	3.7	2000	5.06	1.81	14.9	13.5	8.6	7.8	70.6
	5.1	3000	4.65	1.66	20.4	18.5	11.8	10.7	103.3
	6.4	4000	4.38	1.56	25.5	21.9	14.7	12.6	136.4

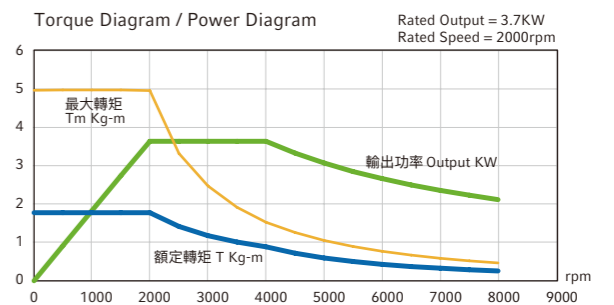
SF-90MA



SF-90MB



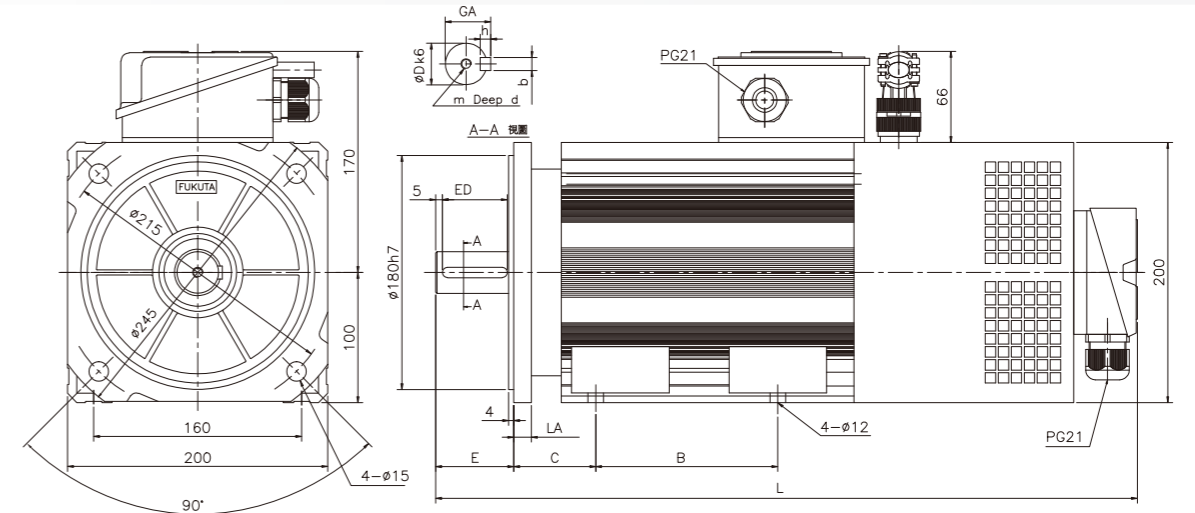
SF-90L



Servo Motor

感應伺服馬達

MODEL
SF-100



	B	D	E	ED	bxh	mxd	GA	L	C	LA
100LA	140	32	60	50	10x8	M8x15	35	539.5	63	13.5
100LB	140	32	60	50	10x8	M8x15	35	539.5	63	13.5
100M	200	38	80	70	10x8	M10x20	41	677	105	15
100L	250	38	80	70	10x8	M10x20	41	737	110	15
100X	280	38	80	70	10x8	M10x20	41	797	125	15
100XL	340	38	80	70	10x8	M10x20	41	857	125	15

產品規格 Standard

輸出 Output (kw)	3.8	5.5	7.2	9.5	11.8	14.6
框號 Frame No.	100LA	100LB	100M	100L	100X	100XL
效率 Efficiency (%)	86.7%	86.4%	87.8%	90.5%	90.5%	90.7%
功因 Power Factor	0.864	0.888	0.861	0.861	0.868	0.864
R1(Ω) @25°C	0.983	0.659	0.602	0.43	0.319	0.307
極數 Poles	4	4	4	4	4	4
轉動慣量 Rotor Inertial (kg-m ²)	0.0061	0.0076	0.0099	0.013	0.016	0.019
激磁電流 Magnetizing Current (A)	6.5	8.8	11.2	14.2	17.1	21.1
額定轉速 Rated Speed (rpm)	2000	2000	2000	2000	2000	2000
最高轉速 Max. Speed (rpm)	8000	8000	8000	8000	8000	8000
重量 Weight (kg)	29.5	33.0	50.0	57.0	68	75.0
編碼器 Encoder	1024PPR RS422(Line-drive)/Push-Pull					
風扇 Elec.Fan	1φ 230V 50/60Hz 82/100W					
軸承 Bearings	LS	6307	6307	6308	6308	6308
	OS	6305	6305	6307	6307	6307

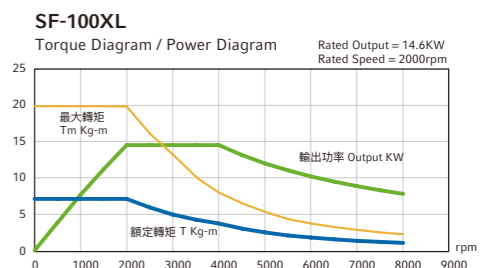
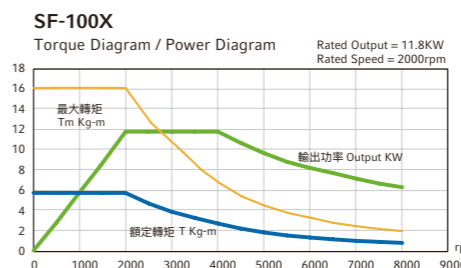
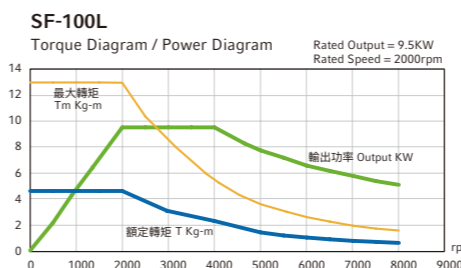
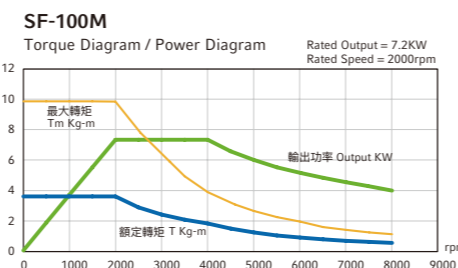
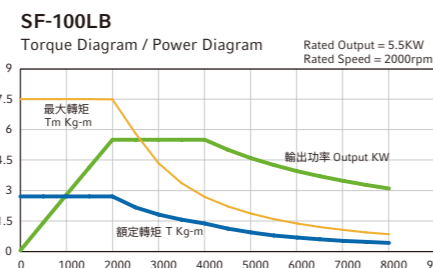
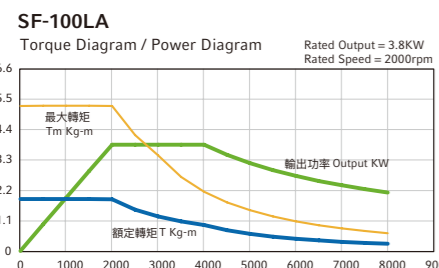
一般條件 General Data

安裝方式 Mounting	IM 2001 (B3/B5)
保護方式 Protection	IP54
轉子平衡 Rotor Balancing	R 級 (ISO2373) R Degree
絕緣等級 Insulation	H 級 Class H
冷卻系統 Cooling Sys.	強制通風 Forced Air Cooled
熱保護 Thermal Protection	熱保護器 (常閉) Thermal Protector(NC)
噪音 Noise	80dBA
周溫 Ambient Temp.	-15°C ~ 40°C
高度 Altitude	海拔 1000 米 1000m ASL
溫度感測器 Temperature sensor	KTY-84
服務係數 S.F	100LA, 100LB 1.15 1.15
	100M, 100L, 100X, 100XL 1.0, 1.0, 1.0, 1.0,

FUKUTA® 伺服馬達規格之選用

框號 Fr. No.	額定輸出 Rated Output	額定轉速 Rated Speed	最大轉矩 Max. Torque	額定轉矩 Rated Torque	額定電流 Rated Current				額定頻率 Rated Frequency
					190V	220V	330V	380V	
SF-100LA	2.8	1500	5.1	1.82	11.5	9.9	6.6	5.7	52.9
	3.8	2000	5.2	1.86	15.4	13.2	8.9	7.6	69.4
	5.2	3000	4.74	1.69	23.0	17.8	13.3	10.3	102.6
SF-100LB	6.4	4000	4.6	1.60	24.5	21.9	14.1	12.6	136.6
	4.0	1500	7.29	2.60	16.1	14.6	9.3	8.4	53.1
	5.5	2000	7.52	2.69	21.8	18.6	12.6	10.7	69.7
SF-100M	7.1	3000	6.74	2.41	31.2	25.0	18.0	14.4	101.8
	9.0	4000	6.15	2.2	33.7	31.5	19.4	18.2	136.2
	5.5	1500	10.01	3.57	23.9	20.6	13.7	11.9	53
SF-100L	7.2	2000	9.82	3.51	29.1	25.1	16.7	14.5	69.6
	9.5	3000	8.64	3.09	40.5	35	23.3	20.3	101.6
	12.5	4000	8.53	3.05	50.7	43.8	29.2	25.4	135
SF-100X	7.5	1500	13.64	4.87	31	26.8	17.9	15.5	52.9
	9.5	2000	12.96	4.63	37	32	21.3	18.5	68.7
	12.5	3000	11.37	4.06	50.5	43.6	29.1	25.2	101.7
SF-100XL	16.5	4000	11.25	4.02	65.2	56.3	37.5	32.6	135.5
	9.2	1500	16.74	5.98	38.1	32.9	21.9	19	52.7
	11.8	2000	16.1	5.75	45.6	39.4	26.3	22.8	68.7
SF-100X	16	3000	14.55	5.2	66	57	38	33	101.6
	22	4000	15.01	5.36	82.2	71	47.3	41.1	135.3
	11	1500	20	7.15	46.4	40.1	26.7	23.2	52.3
SF-100XL	14.6	2000	19.9	7.11	56.7	49	32.7	28.4	68.7
	20.5	3000	18.64	6.66	85.5	73.8	49.2	42.7	101.7
	28	4000	19.10	6.82	110.1	95.1	63.4	55.1	135.2

* 編碼器之選用依需求為主

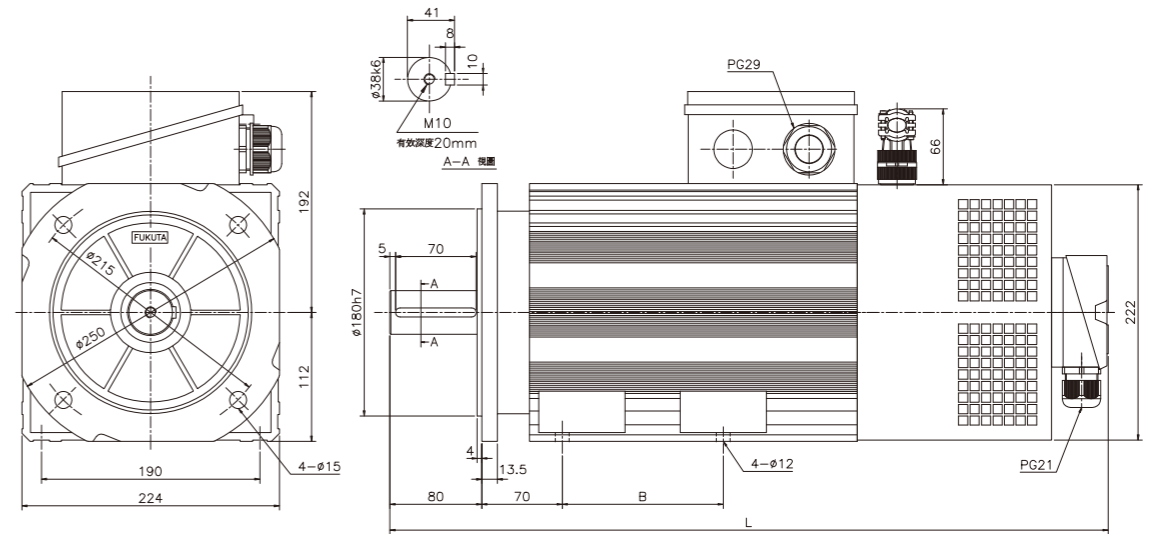
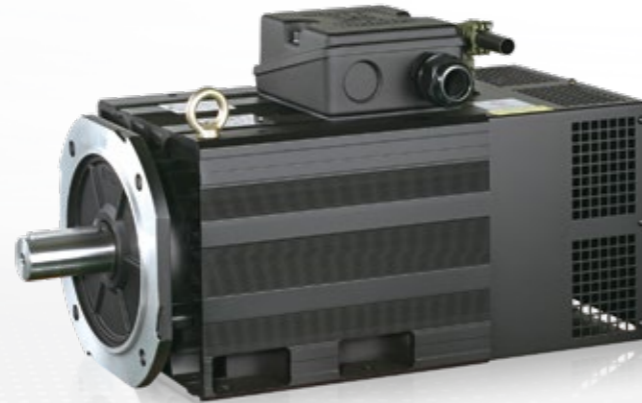


Servo Motor

感應伺服馬達

MODEL

SF-112



	B	L
112L	140	625
112XA	165	655
112XB	245	735

產品規格 Standard

輸出 Output (kw)	7.5	11	15
框號 Frame No.	112L	112XA	112XB
效率 Efficiency (%)	90.0%	90.5%	90.5%
功因 Power Factor	0.903	0.895	0.906
R1(Ω) @25°C	0.368	0.233	0.174
極數 Poles	4	4	4
轉動慣量 Rotor Inertial (kg-m ²)	0.0153	0.0212	0.0282
激磁電流 Magnetizing Current (A)	11.4	16.3	19.9
額定轉速 Rated Speed (rpm)	2000	2000	2000
最高轉速 Max. Speed (rpm)	7000	7000	7000
重量 Weight (kg)	45.0	65.0	72.0
編碼器 Encoder	1024PPR RS422(Line-drive)/Push-Pull		
風扇 Elec.Fan	1φ 230V 50/60Hz 82/110W		
軸承 Bearings	LS:6308C3	OS:6306C3	

* 編碼器之選用依需求為主

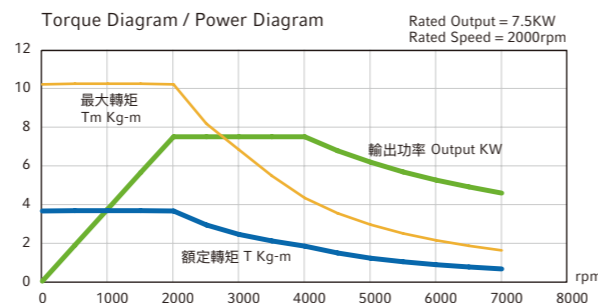
一般條件 General Data

安裝方式 Mounting	IM 2001 (B3/B5)
保護方式 Protection	IP54
轉子平衡 Rotor Balancing	R 級 (ISO2373) R Degree
絕緣等級 Insulation	H 級 Class H
冷卻系統 Cooling Sys.	強制通風 Forced Air Cooled
熱保護 Thermal Protection	熱保護器 (常閉) Thermal Protector (NC)
噪音 Noise	80dBA
周溫 Ambient Temp.	-15°C ~ 40°C
高度 Altitude	海拔 1000 米 1000m ASL
溫度感測器 Temperature sensor	KTY-84
服務係數 S.F	1.15

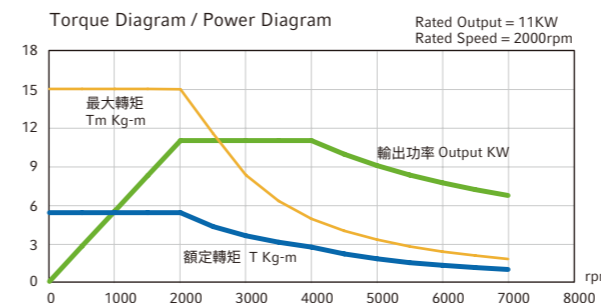
FUKUTA® 伺服馬達規格之選用

框號 Fr. No.	額定輸出 Rated Output	額定轉速 Rated Speed	最大轉矩 Max. Torque	額定轉矩 Rated Torque	額定電流 Rated Current				額定頻率 Rated Frequency
					190V	220V	330V	380V	
SF-112L	5.5	1500	10.02	3.58	22.6	19.6	13.0	11.3	52.1
	7.5	2000	10.25	3.66	28.0	25.2	16.2	14.6	69.0
	10.0	3000	9.11	3.25	38.0	33.0	22.0	19.1	102.1
	12.0	4000	8.2	2.93	45.1	39.1	26.0	22.6	135.5
SF-112XA	8.2	1500	14.8	5.3	32.3	27.9	18.7	16.1	52.0
	11.0	2000	15.02	5.37	41.2	39.0	23.8	22.5	69.0
	15.0	3000	13.3	4.7	57.9	50.4	33.4	29.1	102.0
SF-112XB	16.5	4000	10.8	3.8	62.5	54.0	36.1	32.1	133.3
	11.0	1500	20.37	7.27	43.6	37.9	25.2	21.9	52.4
	15.0	2000	20.48	7.31	55.5	48.5	32.0	28.0	69.00
	20.0	3000	18.1	6.5	77.6	67.0	44.8	38.7	102.2
	25.0	4000	17.1	6.1	93.2	80.5	53.8	46.5	133.3

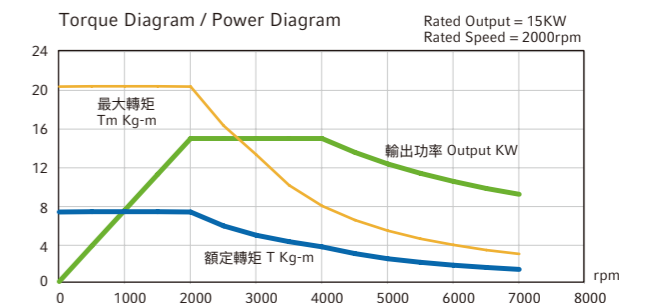
SF-112L



SF-112XA



SF-112XB

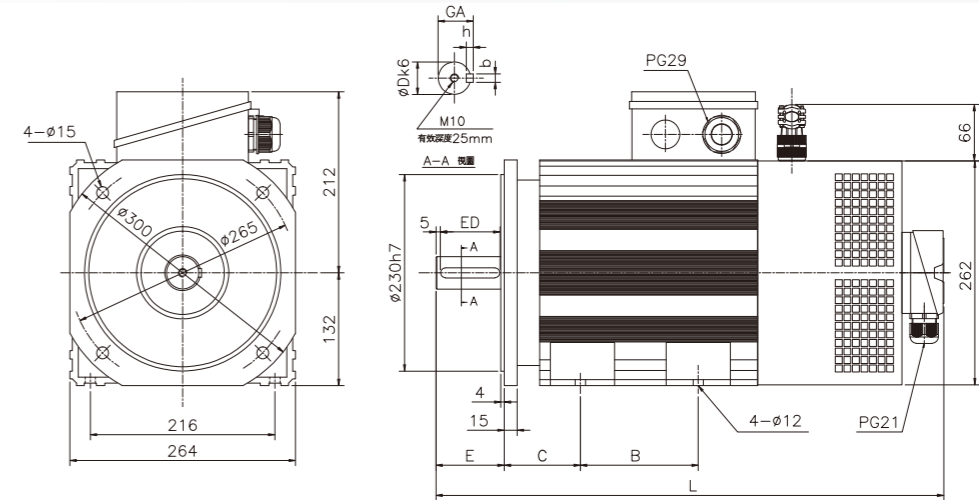
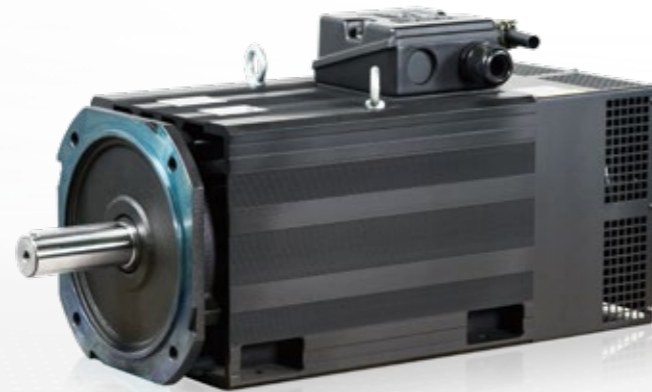


Servo Motor

感應伺服馬達

MODEL

SF-132



	B	D	E	ED	bxh	GA	C	L
132MA	138	38	80	70	10x8	41	89	595
132MB	178	42	110	100	12x8	45	89	665
132L	287	42	110	100	12x8	45	89	750
132LA	332	42	110	100	12x8	45	89	795
132XA	395	42	110	100	12x8	45	114	910
132XB	395	42	110	100	12x8	45	114	910

產品規格 Standard

輸出 Output (kw)	15	18.5	22	30	33	37
框號 Frame No.	132MA	132MB	132L	132LA	132XA	132XB
效率 Efficiency (%)	90.2%	91.5%	92.1%	91.5%	92.6%	92.9%
功因 Power Factor	0.924	0.91	0.9	0.915	0.893	0.882
R1(Ω) @25°C	0.221	0.146	0.106	0.086	0.082	0.067
極數 Poles	4	4	4	4	4	4
轉動慣量 Rotor Inertial (kg-m ²)	0.0404	0.0498	0.0608	0.0735	0.0921	0.104
激磁電流 Magnetizing Current (A)	14.3	20.7	28.1	31.2	38.9	47.2
額定轉速 Rated Speed (rpm)	2000	2000	2000	2000	2000	2000
最高轉速 Max. Speed (rpm)	6000	6000	6000	6000	6000	6000
重量 Weight (kg)	77.5	87.0	107.0	123.0	135.0	144.0
編碼器 Encoder	1024PPR RS422(Line-drive)/Push-Pull					
風扇 Elec.Fan	1ø 230V 50/60Hz 105/145W					
軸承 Bearings	LS:6309C3		OS:6308C3			

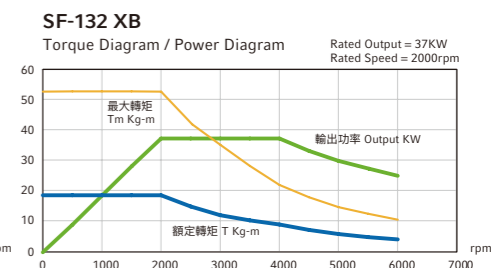
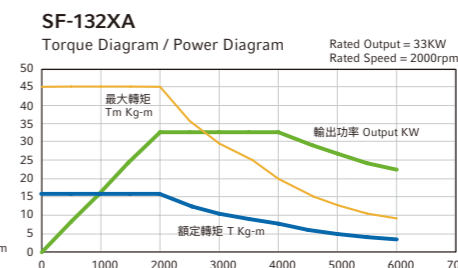
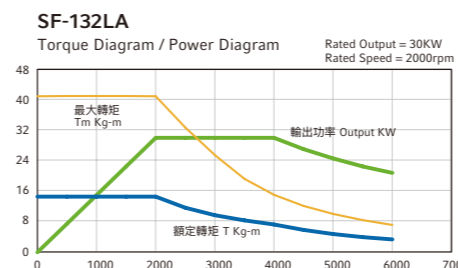
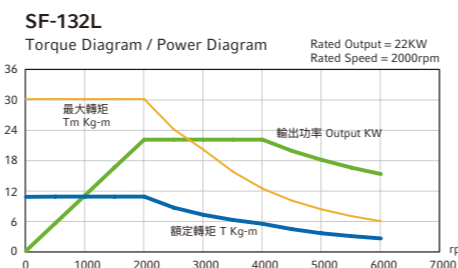
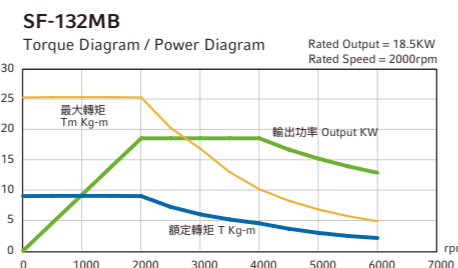
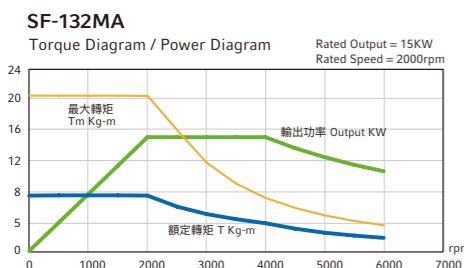
* 編碼器之選用依需求為主

一般條件 General Data

安裝方式 Mounting	IM 2001 (B3/B5)
保護方式 Protection	IP54
轉子平衡 Rotor Balancing	R 級 (ISO2373) R Degree
絕緣等級 Insulation	H 級 Class H
冷卻系統 Cooling Sys.	強制通風 Forced Air Cooled
熱保護 Thermal Protection	熱保護器 (常閉) Thermal Protector(NC)
噪音 Noise	80dBA
周溫 Ambient Temp.	-15°C ~ 40°C
高度 Altitude	海拔 1000 米 1000m ASL
溫度感測器 Temperature sensor	KTY-84
服務係數 S.F	132MA, 132MB, 132L, 132LA 1.15, 1.15, 1.15, 1.15 132XA, 132XB 1.0, 1.0

FUKUTA® 伺服馬達規格之選用

框號 Fr. No.	額定輸出 Rated Output kw	額定轉速 Rated Speed RPM	最大轉矩 Max. Torque kg-m	額定轉矩 Rated Torque kg-m	額定電流 Rated Current				額定頻率 Rated Frequency Hz
					190V	220V	330V	380V	
SF-132MA	11.0	1500	20	7.14	42.0	36.3	24.3	21.0	51.7
	15.0	2000	20.48	7.31	54.6	48.3	31.5	27.9	68.7
	20.0	3000	18.21	6.5	76.9	63.5	44.4	36.6	101.7
SF-132MB	25	4000	17.6	6.2	92.5	79.8	53.4	46.1	133.3
	13.8	1500	25.13	8.97	52.9	45.2	30.5	26.1	51.6
	18.5	2000	25.25	9.02	67.4	60.0	38.9	34.6	68.4
SF-132L	26.0	3000	23.66	8.45	98.3	85.1	56.7	47.4	101.7
	33.3	4000	23	8.2	121.5	104.9	70.1	60.6	133.3
	16.5	1500	30.3	10.72	63.2	54.6	36.5	31.5	51.5
SF-132LA	22.0	2000	30.03	10.72	80.6	71.1	46.5	41.1	68.2
	31.0	3000	28.2	10.07	117.6	99.1	67.9	57.2	101.5
	37.4	4000	25.7	9.1	136.0	117.4	78.5	67.8	133.3
SF-132XA	22.0	1500	40.0	14.2	84.6	73.1	48.9	42.2	51.7
	30.0	2000	40.94	14.62	108.7	103.6	62.8	59.8	68.5
	40.0	3000	37.8	13	153.8	132.9	88.8	76.7	101.2
SF-132XB	50.0	4000	35.2	12.4	184.9	159.7	106.8	92.2	133.3
	25.0	1500	45.46	16.24	96.5	83.3	55.5	48.2	51.4
	33.0	2000	45.01	16.07	121	104.5	69.7	60.5	67.7
SF-132XA	47.0	3000	42.74	15.3	169.9	146.7	97.8	84.9	101
	65.0	4000	44.34	15.8	229.7	198.4	132.3	114.9	134.4
	28.0	1500	50.92	18.19	104.2	90	60	52.1	51.5
SF-132XB	37	2000	50.47	18.02	137.6	118.8	79.2	68.8	68.1
	55.0	3000	50.01	17.86	205.2	177.2	118.1	102.6	100.9
	72	4000	49.09	17.53	285.5	246.6	164.4	142.8	134.2

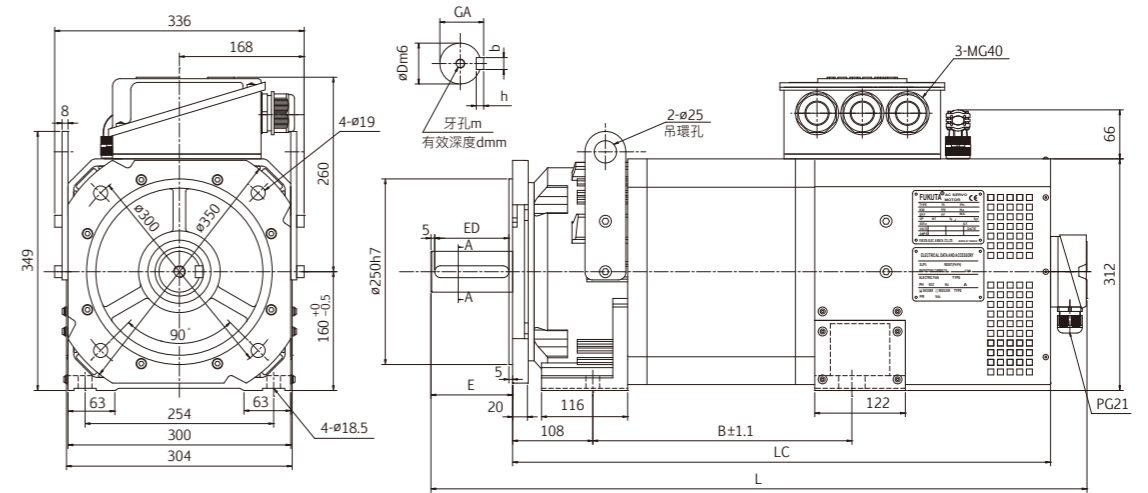


Servo Motor

感應伺服馬達

MODEL

SF-160



	B	D	E	ED	bxh	mxh	GA	LC	L
160S	349	55	110	100	16x10	M12x35	59	725	884
160M	399	60	140	130	18x11	M16x40	64	775	964
160L	449	60	140	130	18x11	M16x40	64	825	1014
160X	529	60	140	130	18x11	M16x40	64	905	1094

產品規格 Standard

輸出 Output (kw)	30	37	45	55
框號 Frame No.	160S	160M	160L	160X
效率 Efficiency (%)	94.6%	95.1%	95.1%	95.2%
功因 Power Factor	0.827	0.854	0.844	0.839
R1(Ω) @25°C	0.045	0.033	0.027	0.02
極數 Poles	4	4	4	4
轉動慣量 Rotor Inertial (kg-m ²)	0.1675	0.2054	0.2427	0.3023
激磁電流 Magnetizing Current (A)	46.9	59.2	75.2	78.4
額定轉速 Rated Speed (rpm)	2000	2000	2000	2000
最高轉速 Max. Speed (rpm)	4500	4500	4500	4500
重量 Weight (kg)	220.0	250.0	280.0	330.0
編碼器 Encoder	1024PPR RS422(Line-drive)/Push-Pull			
風扇 Elec.Fan	1ø 230V 50/60Hz 155/215W			
軸承 Bearings	LS	6313	6313	6314
	OS	6313	6313	6314

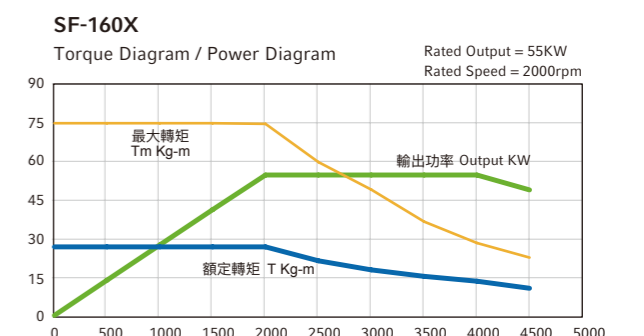
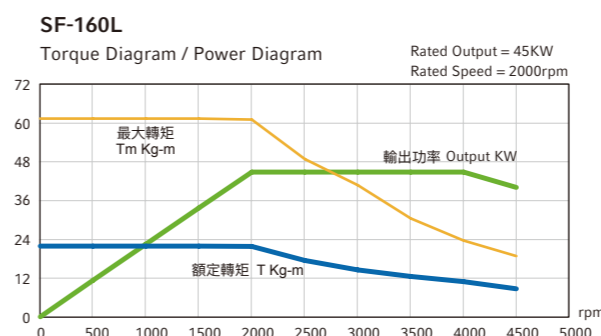
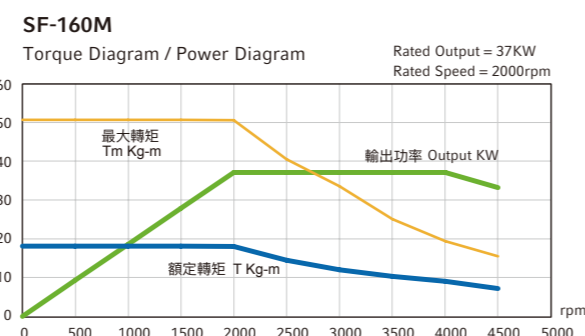
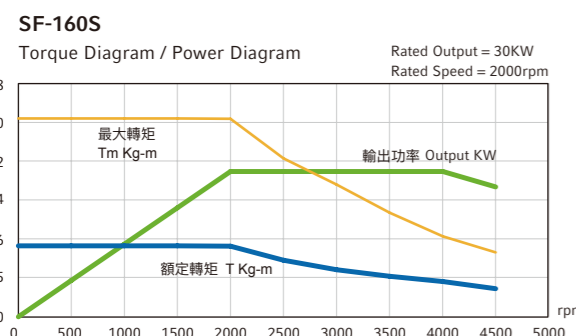
一般條件 General Data

安裝方式 Mounting	IM 2001 (B3/B5)
保護方式 Protection	IP54
轉子平衡 Rotor Balancing	R 級 (ISO2373) R Degree
絕緣等級 Insulation	H 級 Class H
冷卻系統 Cooling Sys.	強制通風 Forced Air Cooled
熱保護 Thermal Protection	熱保護器 (常閉) Thermal Protector (NC)
噪音 Noise	80dBA
周溫 Ambient Temp.	-15°C ~ 40°C
高度 Altitude	海拔 1000 米 1000m ASL
溫度感測器 Temperature sensor	KTY-84
服務係數 S.F	1.15

* 編碼器之選用依需求為主

FUKUTA® 伺服馬達規格之選用

框號 Fr. No.	額定輸出 Rated Output	額定轉速 Rated Speed	最大轉矩 Max. Torque	額定轉矩 Rated Torque	額定電流 Rated Current				額定頻率 Rated Frequency
					190V	220V	330V	380V	
SF-160S	22	1500	40.08	14.31	87.4	74.1	50.5	42.8	50.9
	30	2000	41.03	14.63	116.6	100.8	67.3	58.2	67.6
	40	3000	38.3	13.0	152.8	132.0	88.2	76.2	100.8
	50	4000	35.6	12.2	191	162.7	110.3	93.9	134.1
SF-160M	28	1500	50.91	18.18	104.5	90.1	60.3	52.0	50.8
	37	2000	50.47	18.07	138.3	120.1	79.9	69.4	67.6
	52	3000	47.7	16.9	194.3	167.8	112.2	96.9	100.7
SF-160L	63	4000	43.3	15.3	235.4	203.3	135.9	117.4	133.3
	37	1500	61.2	22.16	125.5	108.4	72.1	62.6	50.9
	45	2000	61.41	21.93	170.3	148.5	98.3	85.7	67.5
	60	3000	55.0	19.5	224.2	193.9	129.5	112.0	100.7
SF-160X	75	4000	51.6	18.3	280.3	242.1	161.8	139.8	133.3
	45	1500	72.89	29.23	169.1	146	97.0	84.2	50.8
	55	2000	75.27	26.88	206.4	178.4	119.2	103.0	67.5
	75	3000	68.8	24.3	281.3	242.9	162.4	140.2	100.6
	90	4000	61.9	21.9	337.5	291.5	194.9	168.3	133.3

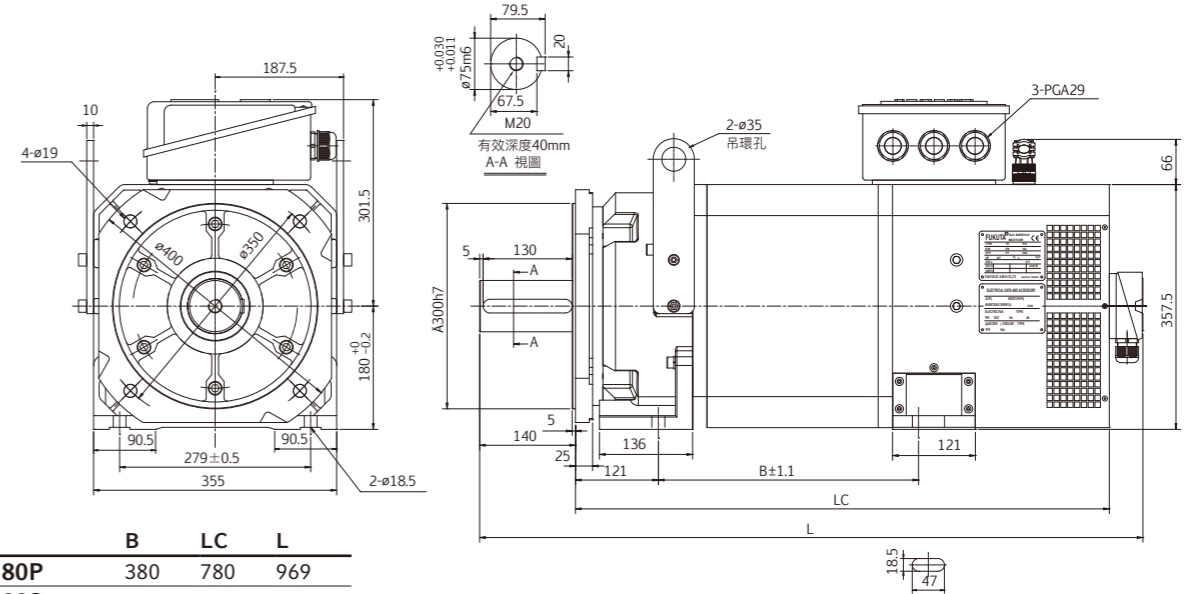


Servo Motor

感應伺服馬達

MODEL

SF-180



	B	LC	L
180P	380	780	969
180S	430	830	1019
180M	475	875	1064
180L	560	960	1149
180X	630	1030	1219

產品規格 Standard

輸出 Output (kw)	55	75	90	110	132
框號 Frame No.	180P	180S	180M	180L	180X
效率 Efficiency (%)	92.8%	92.7%	93.8%	93.0%	92.8%
功因 Power Factor	0.831	0.825	0.828	0.808	0.822
R1(Ω) @25°C	0.084	0.065	0.053	0.038	0.035
極數 Poles	6	6	6	6	6
轉動慣量 Rotor Inertial (kg-m ²)	0.5463	0.6466	0.7369	0.9075	1.0479
激磁電流 Magnetizing Current (A)	44.7	62.1	71.6	99.3	107.5
額定轉速 Rated Speed (rpm)	1500	1500	1500	1500	1500
最高轉速 Max. Speed (rpm)	3500	3500	3500	3500	3500
重量 Weight (kg)	315.0	360.0	400.0	478.0	530.0
編碼器 Encoder	1024PPR RS422(Line-drive)/Push-Pull				
風扇 Elec.Fan	1ø 230V 50/60Hz 155/215W				
軸承 Bearings	LS:6316C3		OS:6315C3		

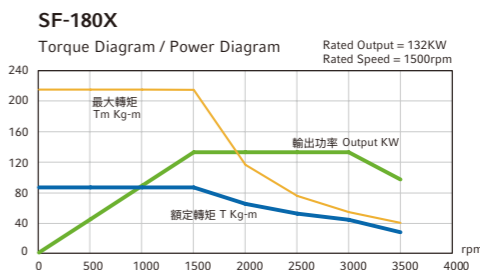
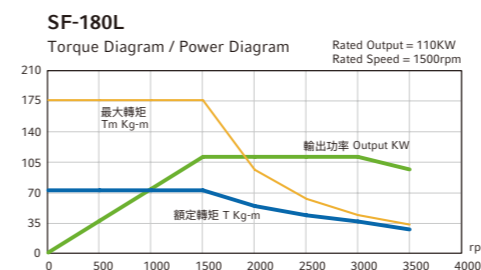
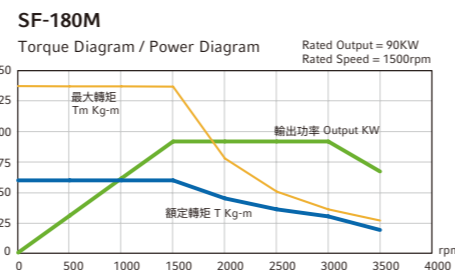
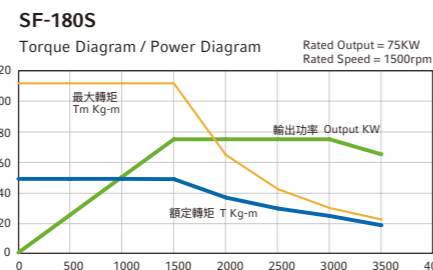
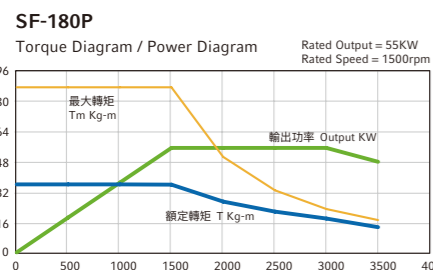
* 編碼器之選用依需求為主

一般條件 General Data

安裝方式 Mounting	IM 2001 (B3/B5)
保護方式 Protection	IP54
轉子平衡 Rotor Balancing	R 級 (ISO2373) R Degree
絕緣等級 Insulation	H 級 Class H
冷卻系統 Cooling Sys.	強制通風 Forced Air Cooled
熱保護 Thermal Protection	熱保護器 (常閉) Thermal Protector(NC)
噪音 Noise	80dBA
周溫 Ambient Temp.	-15°C ~ 40°C
高度 Altitude	海拔 1000 米 1000m ASL
溫度感測器 Temperature sensor	KTY-84
服務係數 S.F	1.15

FUKUTA® 伺服馬達規格之選用

框號 Fr. No.	額定輸出 Rated Output kw	額定轉速 Rated Speed RPM	最大轉矩 Max. Torque kg-m	額定轉矩 Rated Torque kg-m	額定電流 Rated Current		額定頻率 Rated Frequency Hz
					330V	380V	
SF-180P	37	1000	90.25	36.1	84.7	73.5	51.3
	55	1500	87.41	35.8	124.8	107.8	76.2
	69	2000	83.75	33.5	154.4	133.5	101.2
SF-180S	90	3000	73.25	29.3	200.3	172.5	151.2
	50	1000	121.75	48.7	115.6	99.7	51.2
	75	1500	114.85	48.76	168.7	146.1	76.3
SF-180M	94	2000	114.25	45.9	206.1	182.2	101
	124	3000	100.25	40.1	269.3	232.9	151.1
	60	1000	145.08	58.5	139.7	120.6	51.2
SF-180L	90	1500	134.86	58.52	206.8	175.9	76.2
	113	2000	136.15	55.1	250.4	215.9	101.3
	149	3000	119.54	48.2	326.8	282.8	151.3
SF-180X	73	1000	177.32	71.5	168.8	146.0	51.2
	110	1500	174.88	71.47	248.2	212.8	76.2
	138	2000	166.41	67.1	300.1	261.1	101.4
SF-180X	181	3000	146.07	58.9	389.2	342	151.2
	90	1000	212.54	85.7	202.0	176.3	51.4
	132	1500	212.8	85.8	297.4	254.4	76.4
SF-180X	165	2000	199.4	80.4	363.1	314.0	101.4
	217	3000	175.1	70.6	483.5	425	151.1

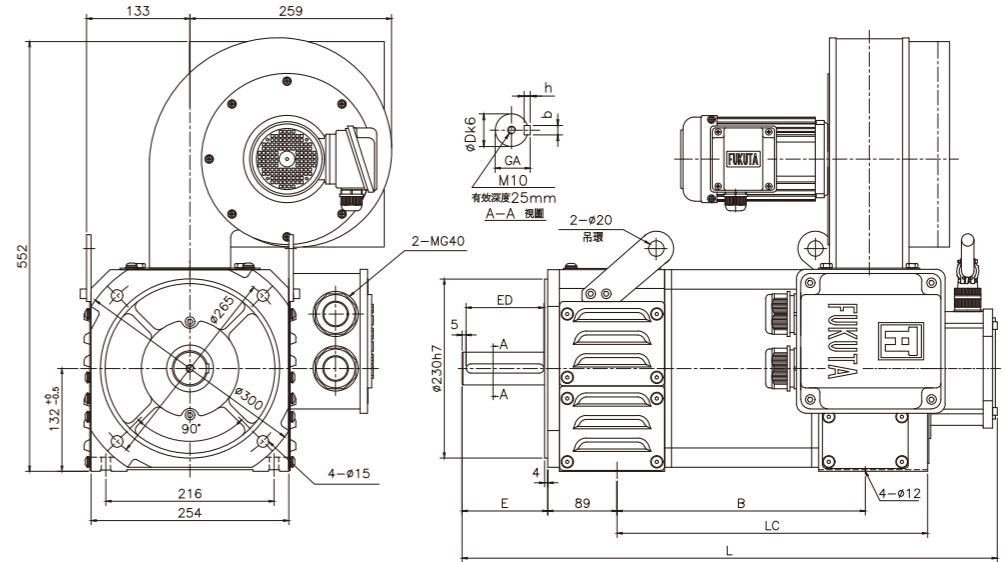


Servo Motor

感應伺服馬達

MODEL

SA-132



	B	D	E	ED	bxh	GA	LC	L
132S	319	38	80	70	10x8	41	399	658
132M	359	42	110	100	12x8	45	439	728
132L	429	42	110	100	12x8	45	509	798
132X	499	42	110	100	12x8	45	579	868

產品規格 Standard

輸出 Output (kw)	11	13.8	16.5	22
框號 Frame No.	132S	132M	132L	132X
效率 Efficiency (%)	91.0%	90.6%	92.0%	92.0%
功因 Power Factor	0.886	0.91	0.894	0.9
R1(Ω) @25°C	0.349	0.3	0.189	0.14
極數 Poles	4	4	4	4
轉動慣量 Rotor Inertial (kg-m ²)	0.0448	0.0598	0.0685	0.0898
激磁電流 Magnetizing Current (A)	13.6	16.4	19	23.6
額定轉速 Rated Speed (rpm)	1500	1500	1500	1500
最高轉速 Max. Speed (rpm)	6000	6000	6000	6000
重量 Weight (kg)	112.0	126.7	136.6	156.1
編碼器 Encoder	1024PPR RS422(Line-drive)/Push-Pull			
風扇 Elec.Fan	3φ 220/380V 50/60Hz 3.5/2.1A			
軸承 Bearings	LS:6310C3		OS:6309C3	

* 編碼器之選用依需求為主

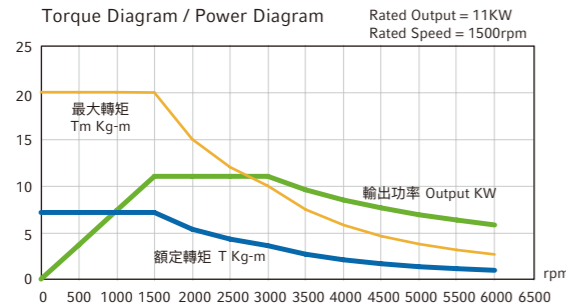
一般條件 General Data

安裝方式 Mounting	IM 2001 (B3/B5)
保護方式 Protection	IP23
轉子平衡 Rotor Balancing	R 級 (ISO2373) R Degree
絕緣等級 Insulation	H 級 Class H
冷卻系統 Cooling Sys.	強制通風 Forced Air Cooled
熱保護 Thermal Protection	熱保護器 (常閉) Thermal Protector(NC)
噪音 Noise	80dBA
周溫 Ambient Temp.	-15°C ~ 40°C
高度 Altitude	海拔 1000 米 1000m ASL
溫度感測器 Temperature sensor	KTY-84
服務係數 S.F	1.15

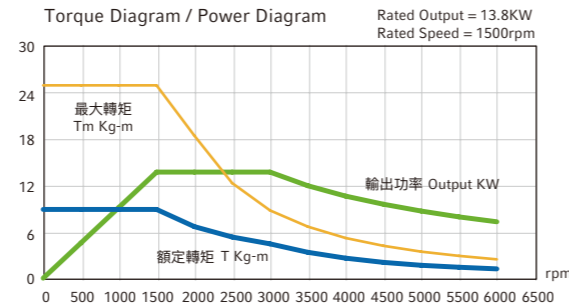
FUKUTA® 伺服馬達規格之選用

框號 Fr. No.	額定輸出 Rated Output	額定轉速 Rated Speed	最大轉矩 Max. Torque	額定轉矩 Rated Torque	額定電流 Rated Current				額定頻率 Rated Frequency
					190V	220V	330V	380V	
SA-132S	3.7	500	20.19	7.21	15.2	13.1	8.8	7.6	18.0
	7.5	1000	20.46	7.31	28.6	24.8	16.5	14.3	34.7
	11	1500	20.01	7.15	41.2	36.4	23.8	20.6	51.3
	15	2000	20.46	7.31	55.3	47.8	31.9	27.6	68.1
SA-132M	4.6	500	25.1	8.97	18.9	16.3	10.9	9.4	18.1
	9.2	1000	25.1	8.97	34.9	30.1	20.1	17.4	34.8
	13.8	1500	25.1	8.97	51.0	44.0	29.4	25.4	51.6
	18.5	2000	25.24	9.01	67.8	58.8	39.1	34.0	68.1
SA-132L	5.5	500	30.01	10.72	22.0	18.9	12.7	10.9	17.9
	11	1000	30.01	10.72	41.3	35.8	23.9	20.7	34.6
	16.5	1500	30.01	10.72	60.8	52.8	35.1	30.5	51.3
	22	2000	30.01	10.72	81.4	71.1	47.0	41.1	67.9
SA-132X	7.5	500	40.93	14.62	29.9	25.8	17.2	14.9	18.00
	15	1000	40.93	14.62	52.6	48.4	32.5	28.0	34.7
	22	1500	40.02	14.29	80.2	67.9	46.3	40.2	51.3
	30	2000	40.93	14.62	110.5	94.1	63.8	54.3	68.0

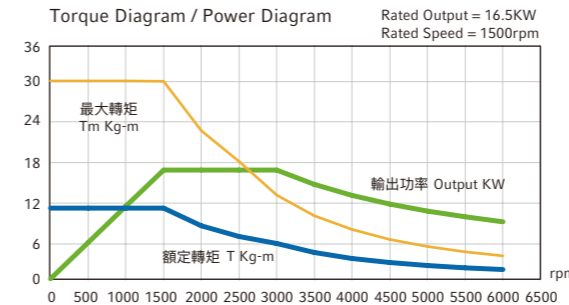
SA-132S Torque Diagram / Power Diagram Rated Output = 11KW Rated Speed = 1500rpm



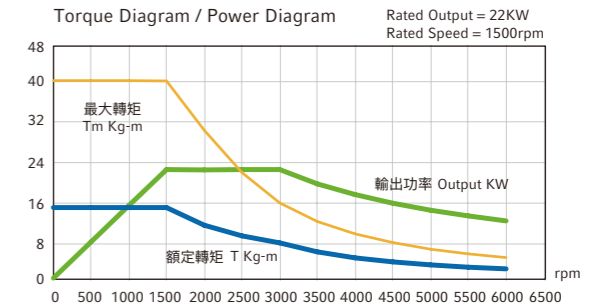
SA-132M Torque Diagram / Power Diagram Rated Output = 13.8KW Rated Speed = 1500rpm



SA-132L Torque Diagram / Power Diagram Rated Output = 16.5KW Rated Speed = 1500rpm



SA-132X Torque Diagram / Power Diagram Rated Output = 22KW Rated Speed = 1500rpm

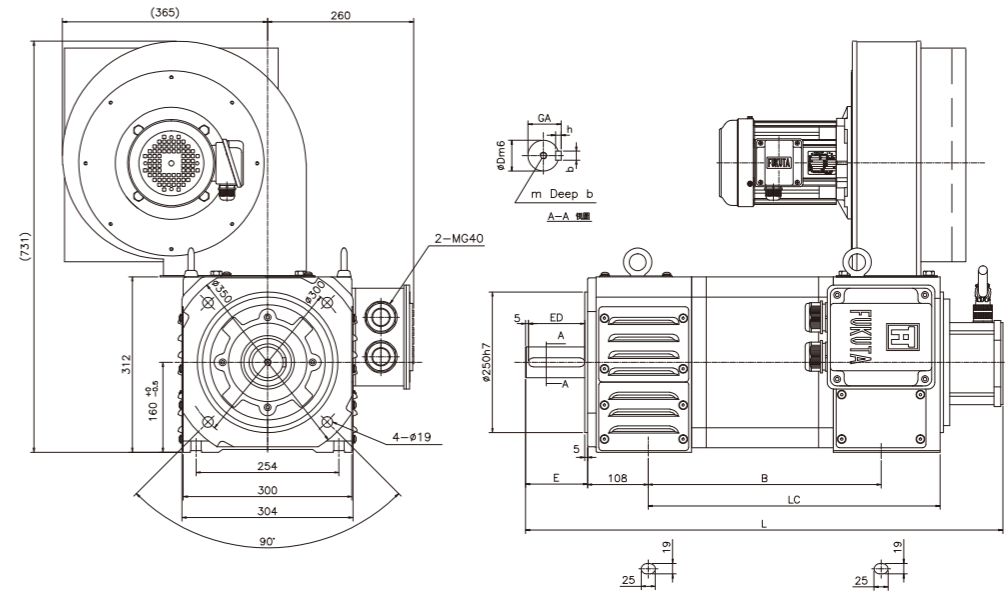
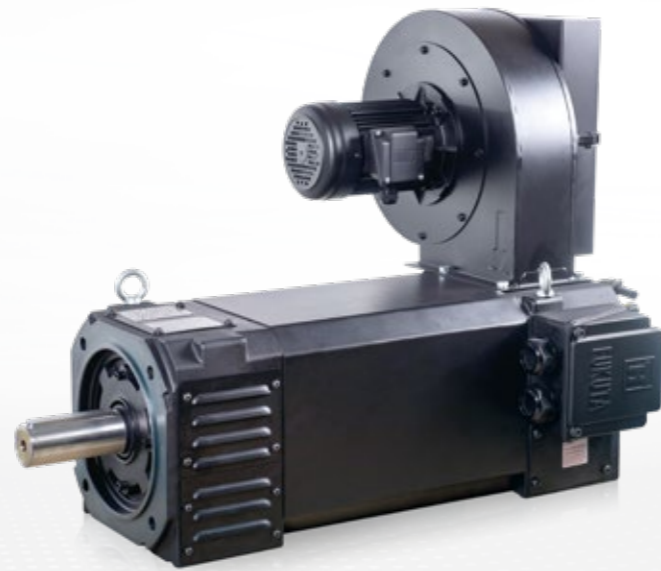


Servo Motor

感應伺服馬達

MODEL

SA-160



	B	D	E	ED	bxh	mxh	GA	LC	L
160S	414	55	110	100	16x10	M12x35	59	519	849
160M	464	60	140	130	18x11	M16x40	64	569	929
160L	514	60	140	130	18x11	M16x40	64	619	979
160X	594	60	140	130	18x11	M16x40	64	699	1059

產品規格 Standard

輸出 Output (kw)	30	37	45	55
框號 Frame No.	160S	160M	160L	160X
效率 Efficiency (%)	92.8%	93.2%	93.4%	93.9%
功因 Power Factor	0.843	0.85	0.878	0.845
R1(Ω) @25°C	0.07	0.053	0.043	0.029
極數 Poles	4	4	4	4
轉動慣量 Rotor Inertial (kg-m ²)	0.1675	0.2054	0.2427	0.3023
激磁電流 Magnetizing Current (A)	50.2	53.4	59.5	89.3
額定轉速 Rated Speed (rpm)	1500	1500	1500	1500
最高轉速 Max. Speed (rpm)	4500	4500	4500	4500
重量 Weight (kg)	240.0	270.0	300.0	350.0
編碼器 Encoder	1024PPR RS422(Line-drive)/Push-Pull			
風扇 Elec.Fan	3ø 220/380V 50/60Hz 3.5/2.1A			
軸承 Bearings	LS:6313C3		OS:6312C3	

* 編碼器之選用依需求為主

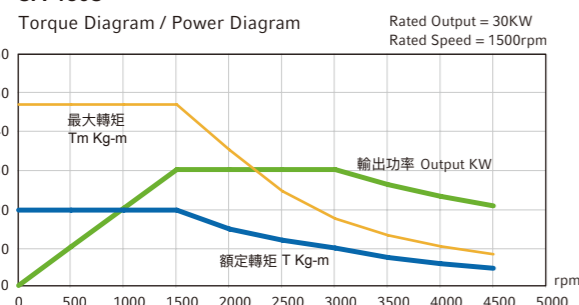
一般條件 General Data

安裝方式 Mounting	IM 2001 (B3/B5)
保護方式 Protection	IP23
轉子平衡 Rotor Balancing	R 級 (ISO2373) R Degree
絕緣等級 Insulation	H 級 Class H
冷卻系統 Cooling Sys.	強制通風 Forced Air Cooled
熱保護 Thermal Protection	熱保護器 (常閉) Thermal Protector(NC)
噪音 Noise	80dBA
周溫 Ambient Temp.	-15°C ~ 40°C
高度 Altitude	海拔 1000 米 1000m ASL
溫度感測器 Temperature sensor	KTY-84
服務係數 S.F	1.15

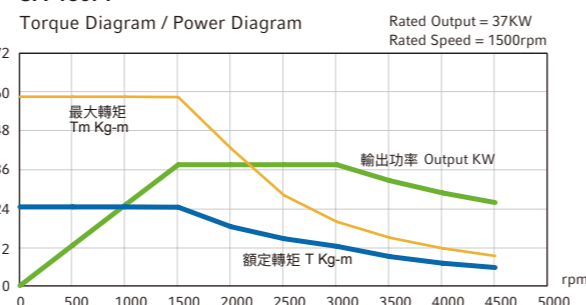
FUKUTA® 伺服馬達規格之選用

框號 Fr. No.	額定輸出 Rated Output	額定轉速 Rated Speed	最大轉矩 Max. Torque	額定轉矩 Rated Torque	額定電流 Rated Current				額定頻率 Rated Frequency
					190V	220V	330V	380V	
SA-160S	9	500	42.07	17.53	38.3	33.2	22.1	19.2	17.6
	18.5	1000	43.32	18.05	72.4	63.7	41.8	36.8	34.3
	30	1500	46.82	19.51	116.9	103.9	67.5	59.5	51.0
SA-160M	37	2000	43.42	18.09	138.1	122	79.8	70.4	67.7
	11	500	51.46	21.44	45.5	38.2	26.3	22.0	17.6
	22	1000	51.46	21.44	85.7	72.6	49.5	41.9	34.3
SA-160L	37	1500	57.77	24.07	139.4	118.9	80.5	68.6	51.0
	45	2000	52.7	21.96	164.7	141.4	95.1	81.7	67.7
	15	500	70.27	29.28	64.7	55.6	37.4	32.1	17.6
SA-160X	30	1000	70.27	29.28	113.2	96.7	65.2	55.9	34.4
	45	1500	70.22	29.28	167.0	144.4	96.4	83.4	51.1
	55	2000	64.54	26.89	197.9	173.7	114.2	100.3	67.7
	18.5	500	86.66	36.11	78.5	66.30	45.3	38.3	17.6
SA-160X	37	1000	86.66	36.11	144.9	129.1	83.7	74.5	34.3
	55	1500	85.87	35.78	211.0	188.3	121.8	108.7	50.9
	65	2000	76.05	31.69	236.8	203.0	136.7	117.2	67.6

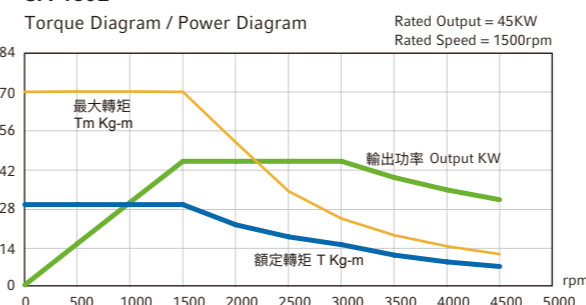
SA-160S



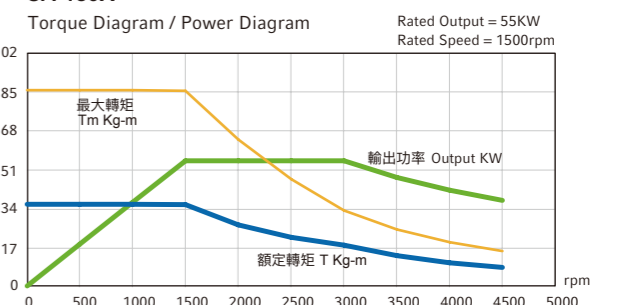
SA-160M



SA-160L



SA-160X

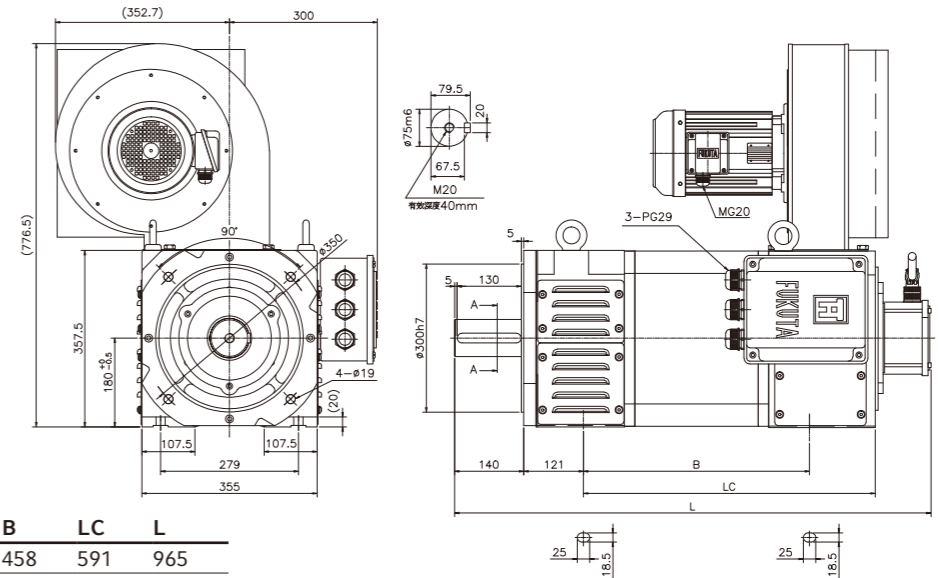


Servo Motor

感應伺服馬達

MODEL

SA-180



	B	LC	L
180P	458	591	965
180S	508	641	1015
180M	553	686	1060
180L	638	771	1145
180X	708	841	1215

產品規格 Standard

輸出 Output (kw)	75	90	100	132	150
框號 Frame No.	180P	180S	180M	180L	180X
效率 Efficiency (%)	92.3%	92.3%	92.6%	92.8%	92.8%
功因 Power Factor	0.84	0.838	0.817	0.824	0.826
R1(Ω) @25°C	0.076	0.063	0.049	0.035	0.03
極數 Poles	6	6	6	6	6
轉動慣量 Rotor Inertial (kg-m ²)	0.5463	0.6466	0.7369	0.9075	1.0479
激磁電流 Magnetizing Current (A)	55.9	65.5	84.4	107	117.9
額定轉速 Rated Speed (rpm)	1500	1500	1500	1500	1500
最高轉速 Max. Speed (rpm)	3500	3500	3500	3500	3500
重量 Weight (kg)	345.0	390.0	430.0	505.0	560.0
編碼器 Encoder	1024PPR RS422(Line-drive)/Push-Pull				
風扇 Elec.Fan	3ø 220/380V 50/60Hz 5.6/3.2A				
軸承 Bearings	LS:6316C3		OS:6315C3		

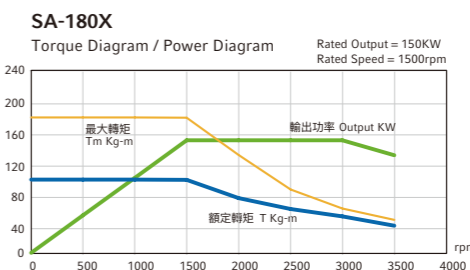
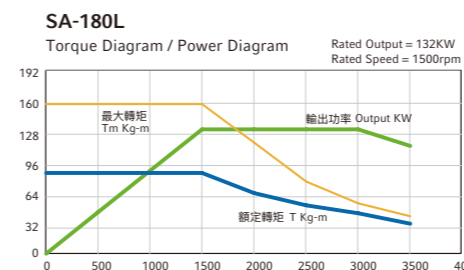
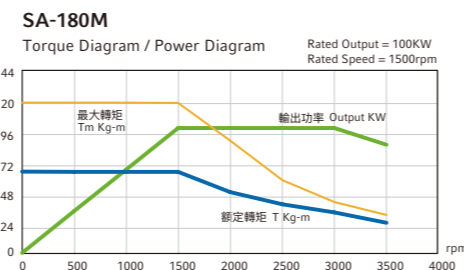
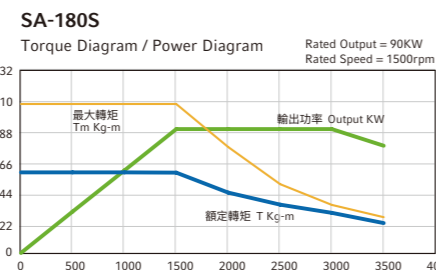
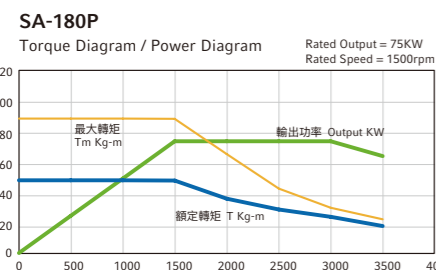
* 編碼器之選用依需求為主

一般條件 General Data

安裝方式 Mounting	IM 2001 (B3/B5)
保護方式 Protection	IP23
轉子平衡 Rotor Balancing	R 級 (ISO2373) R Degree
絕緣等級 Insulation	H 級 Class H
冷卻系統 Cooling Sys.	強制通風 Forced Air Cooled
熱保護 Thermal Protection	熱保護器 (常閉) Thermal Protector(NC)
噪音 Noise	80dBA
周溫 Ambient Temp.	-15°C ~ 40°C
高度 Altitude	海拔 1000 米 1000m ASL
溫度感測器 Temperature sensor	KTY-84
服務係數 S.F	1.15

FUKUTA® 伺服馬達規格之選用

框號 Fr. No.	額定輸出 Rated Output kw	額定轉速 Rated Speed RPM	最大轉矩 Max. Torque kg-m	額定轉矩 Rated Torque kg-m	額定電流 Rated Current		額定頻率 Rated Frequency Hz
					330V	380V	
SA-180P	25	500	90.42	48.88	65.1	56.0	26.3
	50	1000	90.35	48.84	119	103.8	51.4
	75	1500	90.17	48.74	171	151.5	76.4
SA-180S	30	500	108.33	58.56	74.6	64.5	26.3
	60	1000	108.15	58.46	141	122.9	51.4
	90	1500	108.24	58.51	208.6	178.0	76.4
SA-180M	37	500	133.66	72.25	89.8	78.4	26.4
	70	1000	126.36	68.3	162.5	138.8	51.3
	100	1500	120.25	65.0	227.1	197.3	76.3
SA-180L	45	500	162.63	87.91	111.8	96.9	26.4
	85	1000	153.4	82.92	210.6	178.0	51.2
	132	1500	158.73	85.8	309.6	276.0	76.3
SA-180X	160	2000	144.36	78.03	358.4	310.7	101.4
	50	500	180.63	97.64	123.7	107.3	26.3
	100	1000	180.49	97.56	231.1	201.7	51.4
SA-180X	150	1500	180.28	97.45	346.4	303.0	76.3
	187	2000	168.72	91.2	420.8	360.1	101.4

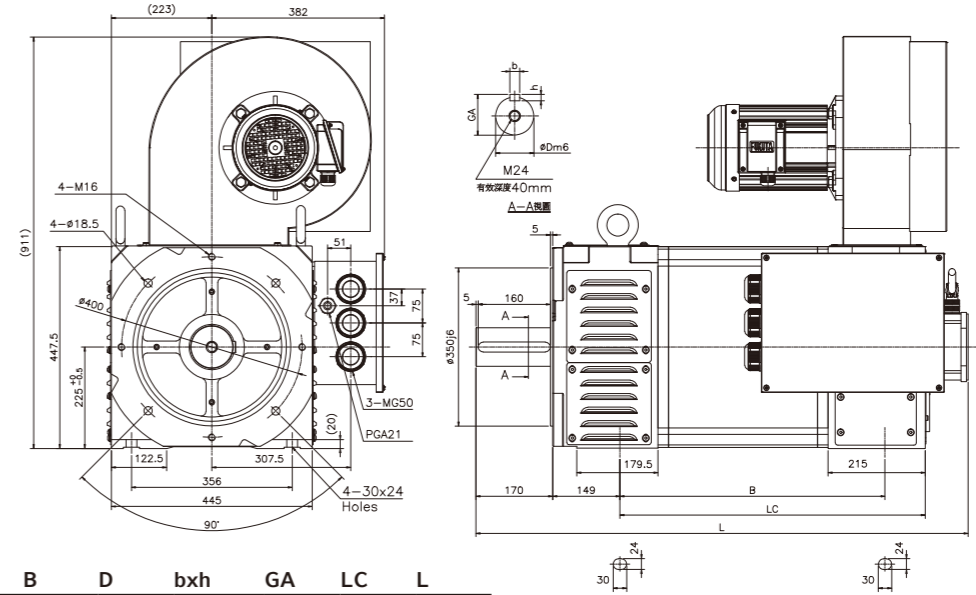


Servo Motor

感應伺服馬達

MODEL

SA-225



	B	D	b x h	GA	LC	L
225S	587	85	22x14	90	676	1090
225M	657	85	22x14	90	746	1160
225L	757	95	25x14	100	846	1260
225X	857	95	25x14	100	946	1360

產品規格 Standard

輸出 Output (kw)	115	150	168	200
框號 Frame No.	225S	225M	225L	225X
效率 Efficiency (%)	92.4%	92.4%	93.0%	93.1%
功因 Power Factor	0.845	0.86	0.876	0.876
R1(Ω) @25°C	0.0624	0.048	0.0386	0.0313
極數 Poles	6	6	6	6
轉動慣量 Rotor Inertial (kg-m ²)	1.7946	2.1492	2.6569	3.1608
激磁電流 Magnetizing Current (A)	89.6	102.6	103.3	119.1
額定轉速 Rated Speed (rpm)	1000	1000	1000	1000
最高轉速 Max. Speed (rpm)	3000	3000	3000	3000
重量 Weight (kg)	710.0	800.0	870.0	1050.0
編碼器 Encoder	1024PPR RS422(Line-drive)/Push-Pull			
風扇 Elec.Fan	3φ 220/380V 50/60Hz 8/4.6A			
軸承 Bearings	LS:6320C3		OS:6316C3	

* 編碼器之選用依需求為主

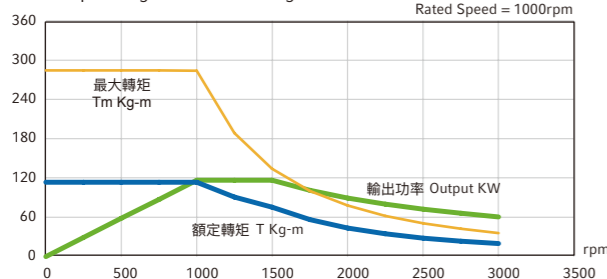
一般條件 General Data

安裝方式 Mounting	IM 2001 (B3/B5)
保護方式 Protection	IP23
轉子平衡 Rotor Balancing	R 級 (ISO2373) R Degree
絕緣等級 Insulation	H 級 Class H
冷卻系統 Cooling Sys.	強制通風 Forced Air Cooled
熱保護 Thermal Protection	熱保護器 (常閉) Thermal Protector(NC)
噪音 Noise	80dBA
周溫 Ambient Temp.	-15°C ~ 40°C
高度 Altitude	海拔 1000 米 1000m ASL
溫度感測器 Temperature sensor	KTY-84
服務係數 S.F	1.15

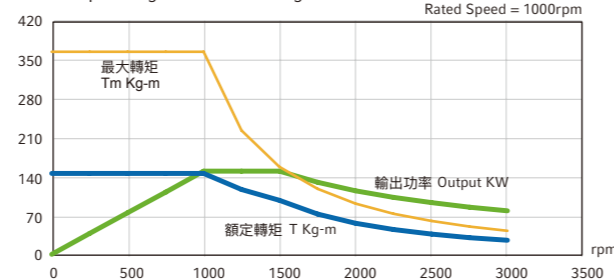
FUKUTA® 伺服馬達規格之選用

框號 Fr. No.	額定輸出 Rated Output kw	額定轉速 Rated Speed RPM	最大轉矩 Max. Torque kg-m	額定轉矩 Rated Torque kg-m	額定電流 Rated Current 380V	額定頻率 Rated Frequency Hz
SA-225S	55	500	267.9	107.14	109.0	25.8
	115	1000	280.2	112.06	224.0	50.8
	168	1500	272.5	109.0	330.0	75.8
	220	2000	268.0	107.2	407.0	100.9
SA-225M	75	500	365.5	146.2	149.0	25.9
	150	1000	365.5	146.2	287.0	50.9
	220	1500	357.3	142.9	414.0	75.9
SA-225L	300	2000	365.5	146.2	555.0	100.9
	84	500	409.25	163.7	163.4	25.8
	168	1000	409.25	163.7	313.0	50.8
	250	1500	406.0	162.4	464.0	75.8
SA-225X	330	2000	402.0	160.8	644.0	100.7
	100	500	467.28	194.7	191.2	25.8
	200	1000	467.28	194.7	377.6	50.9
	300	1500	467.28	194.7	541.5	75.8
	375	2000	438.48	182.7	672.3	101.0

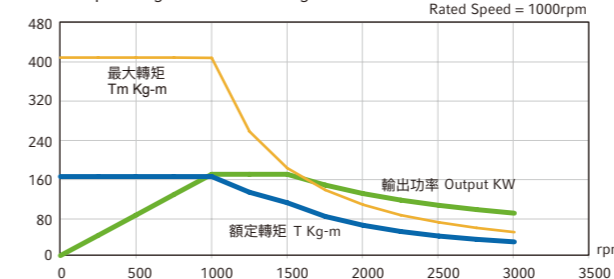
SA-225S Torque Diagram / Power Diagram Rated Output = 115KW Rated Speed = 1000rpm



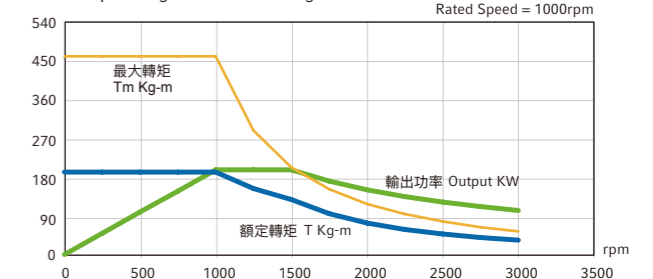
SA-225M Torque Diagram / Power Diagram Rated Output = 150KW Rated Speed = 1000rpm



SA-225L Torque Diagram / Power Diagram Rated Output = 168KW Rated Speed = 1000rpm



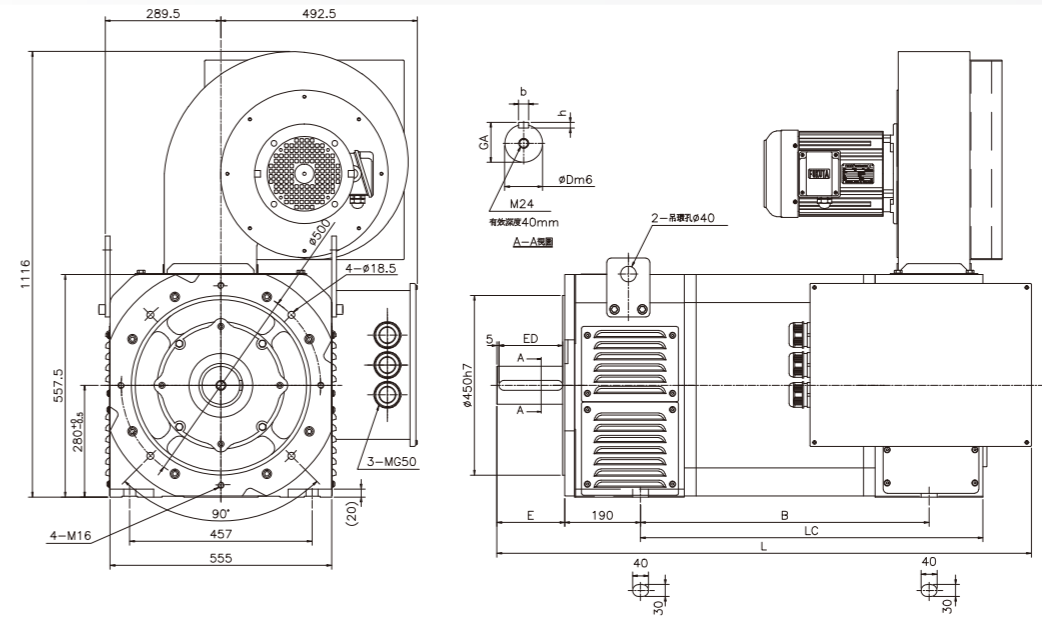
SA-225X Torque Diagram / Power Diagram Rated Output = 200KW Rated Speed = 1000rpm



Servo Motor

感應伺服馬達

MODEL SA-280



	B	D	E	ED	bxh	GA	LC	L		B	D	E	ED	bxh	GA	LC	L
280S	723	95	170	160	25x14	100	858	1340	280X	953	100	210	200	28x16	106	1088	1610
280M	803	95	170	160	25x14	100	938	1420	280XL	1123	100	210	200	28x16	106	1258	1780
280L	893	100	210	200	28x16	106	1028	1550									

產品規格 Standard

輸出 Output (kw)	265	305	360	390	420
框號 Frame No.	280S	280M	280L	280X	280XL
效率 Efficiency (%)	92.9%	95.5%	96.0%	96.1%	95.5%
功因 Power Factor	0.855	0.853	0.854	0.869	0.886
R1(Ω) @25°C	0.019	0.017	0.012	0.011	0.003
極數 Poles	6	6	6	6	6
轉動慣量 Rotor Inertial (kg-m ²)	5.291	6.2986	7.4323	8.1881	8.35
激磁電流 Magnetizing Current (A)	106	198.4	252.9	246.2	242.1
額定轉速 Rated Speed (rpm)	1000	1000	1000	1000	1000
最高轉速 Max. Speed (rpm)	3000	3000	3000	3000	3000
重量 Weight (kg)	1100.0	1300.0	1450.0	1600.0	1860.0
編碼器 Encoder	1024PPR RS422(Line-drive)/Push-Pull				
風扇 Elec.Fan	3φ 220/380V 50/60Hz 8/4.6A				
軸承 Bearings	LS:6322C3		OS:6322C3		

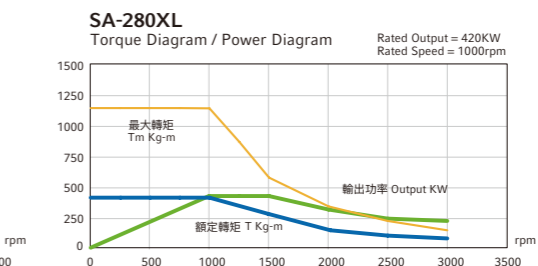
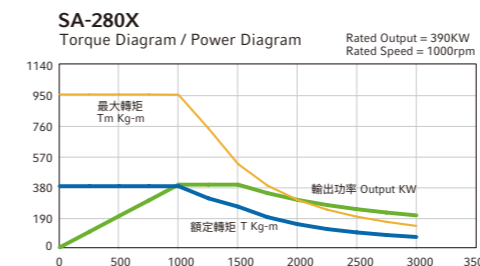
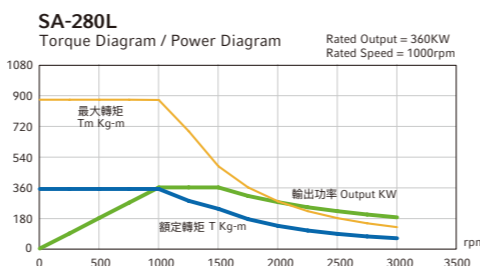
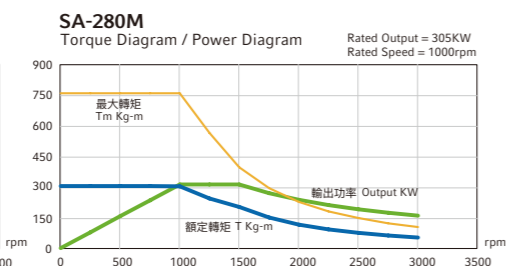
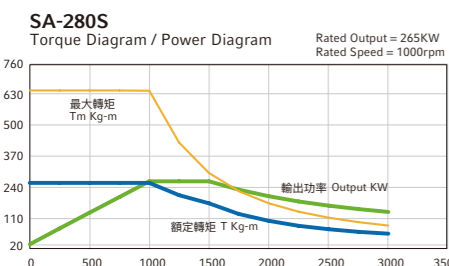
* 編碼器之選用依需求為主

一般條件 General Data

安裝方式 Mounting	IM 2001 (B3/B5)
保護方式 Protection	IP23
轉子平衡 Rotor Balancing	R 級 (ISO2373) R Degree
絕緣等級 Insulation	H 級 Class H
冷卻系統 Cooling Sys.	強制通風 Forced Air Cooled
熱保護 Thermal Protection	熱保護器 (常閉) Thermal Protector(NC)
噪音 Noise	80dBA
周溫 Ambient Temp.	-15°C ~ 40°C
高度 Altitude	海拔 1000 米 1000m ASL
溫度感測器 Temperature sensor	KTY-84
服務係數 S.F	1.15

FUKUTA® 伺服馬達規格之選用

框號 Fr. No.	額定輸出 Rated Output	額定轉速 Rated Speed	最大轉矩 Max. Torque	額定轉矩 Rated Torque	額定電流 Rated Current	額定頻率 Rated Frequency
	kw	RPM	kg-m	kg-m	380V	Hz
SA-280S	132	500	643.18	257.27	247.4	25.5
	265	1000	645.63	258.25	475.6	50.5
	400	1500	649.65	259.86	718.8	75.5
	520	2000	633.43	253.37	899.5	100.5
SA-280M	150	500	730.88	292.35	287.0	25.5
	305	1000	743	297.2	568.9	50.6
	450	1500	730.85	292.34	833.1	75.6
	600	2000	730.85	292.34	1097.5	100.6
SA-280L	168	500	818.63	327.45	321.8	25.5
	360	1000	877.08	350.83	667.5	50.5
	510	1500	812.1	331.33	957.7	75.5
	650	2000	791.73	316.69	1155.7	100.5
SA-280X	190	500	925.75	370.3	339.6	25.5
	390	1000	950.83	380.33	709.8	50.5
	560	1500	909.53	363.81	1058.3	75.5
	750	2000	913.58	365.43	1339.7	100.5
SA-280XL	128	300	1038	415.4	302	15.4
	210	500	1022	409	405	25.5
	420	1000	1025	410	753.2	50.6

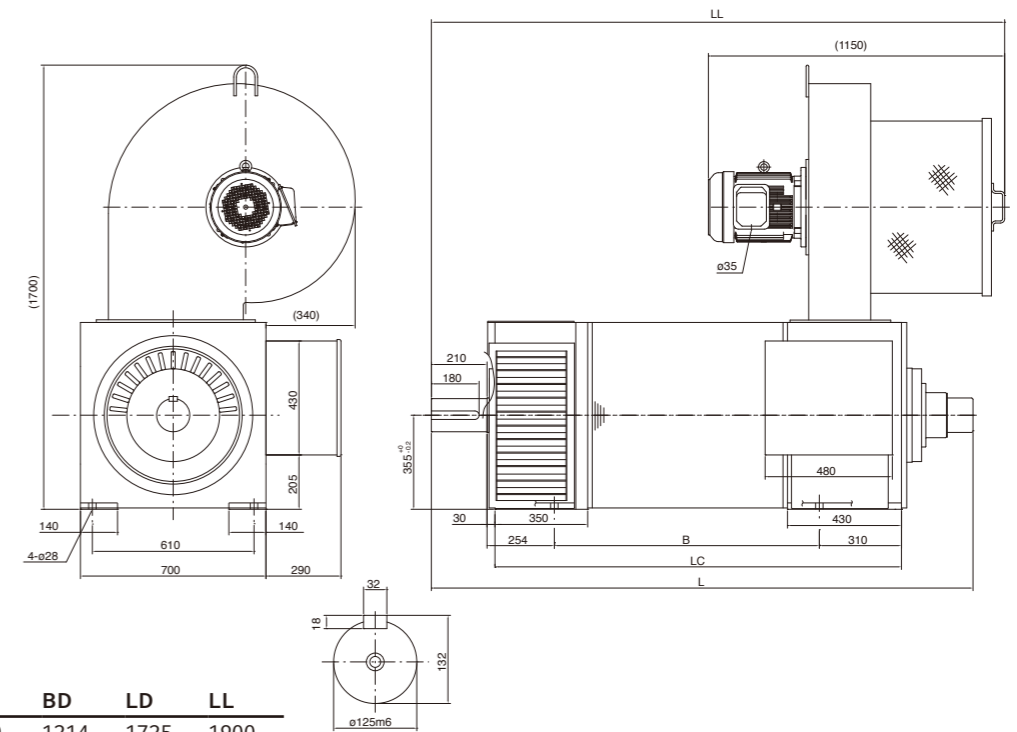


Servo Motor

感應伺服馬達

MODEL

SA-355



	B	BD	LD	LL
355SS	680	1214	1725	1900
355S	780	1314	1825	2000
355M	880	1414	1925	2100
355L	1000	1534	2045	2220

產品規格 Standard

輸出 Output (kw)	420	500	585	650
框號 Frame No.	355SS	355S	355M	355L
效率 Efficiency (%)	92.5%	94.5%	95.0%	95.5%
功因 Power Factor	0.84	0.85	0.85	0.85
R1(Ω) @25°C	0.0081	0.0063	0.0048	0.0032
極數 Poles	6	6	6	6
轉動慣量 Rotor Inertial (kg-m ²)	16.85	20.3	23.7	27.8
激磁電流 Magnetizing Current (A)	275	288	372	492
額定轉速 Rated Speed (rpm)	1000	1000	1000	1000
最高轉速 Max. Speed (rpm)	2000	2000	2000	2000
重量 Weight (kg)	2400.0	2640.0	3000.0	3310.0
編碼器 Encoder	1024PPR RS422(Line-drive)/Push-Pull			
風扇 Elec.Fan	3ø220/380V 50/60HZ 25.9/15A			
軸承 Bearings	LS:6326C3		OS:6326C3	

* 編碼器之選用依需求為主

一般條件 General Data

安裝方式 Mounting	IM 2001 (B3/B5)
保護方式 Protection	IP23
轉子平衡 Rotor Balancing	R 級 (ISO2373) R Degree
絕緣等級 Insulation	F 級 Class F
冷卻系統 Cooling Sys.	強制通風 Forced Air Cooled
熱保護 Thermal Protection	熱保護器 (常閉) Thermal Protector (NC)
噪音 Noise	90dBA
周溫 Ambient Temp.	40°C
高度 Altitude	海拔 1000 米 1000m ASL
溫度感測器 Temperature Sensor	KTY-84
服務係數 S.F	1.15

FUKUTA® 伺服馬達規格之選用

框號 Fr. No.	額定輸出 Rated Output kw	額定轉速 Rated Speed RPM	最大轉矩 Max. Torque kg-m	額定轉矩 Rated Torque kg-m	額定電流 Rated Current 380V	額定頻率 Rated Frequency Hz
SA-355SS	220	500	857.2	428.6	430	25.3
	420	1000	818.2	409.1	821	50.3
	600	1500	779.2	389.6	1170	75.3
	700	1800	757.6	378.8	1370	90.3
SA-355S	265	500	774.3	516.2	504	25
	500	1000	730.5	487	951	50
	720	1500	701.3	467.5	1355	75
SA-355M	830	1800	673.7	449.1	1562	90
	300	500	876.0	584	570.0	25
	585	1000	854.7	569.8	1112	50
SA-355L	830	1500	808.4	538.9	1562	75
	950	1800	771.2	514.1	1778	90
	350	500	1022.7	681.8	666	25
SA-355L	650	1000	949.5	633	1236	50
	950	1500	925.2	616.8	1778	75
	1100	1800	892.8	595.2	2058	90

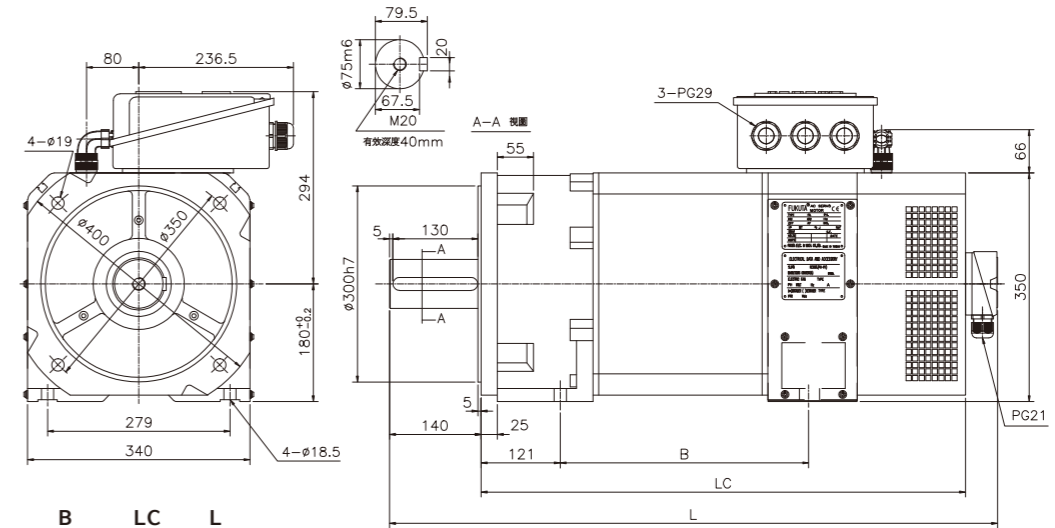
Servo Motor

感應伺服馬達

MODEL

SB-180

IP54 低慣量



	B	LC	L
180P	380	741	930
180S	430	791	980
180M	475	836	1025
180L	560	921	1110
180X	630	991	1180

產品規格 Standard

輸出 Output (kw)	55	65	75	90	110
框號 Frame No.	180P	180S	180M	180L	180X
效率 Efficiency (%)	94.8%	94.8%	95.0%	95.3%	95.3%
功因 Power Factor	0.883	0.878	0.887	0.904	0.895
R1(Ω) @25°C	0.116	0.097	0.079	0.061	0.048
極數 Poles	4	4	4	4	4
轉動慣量 Rotor Inertial (kg-m ²)	0.4006	0.4807	0.5528	0.6889	0.801
激磁電流 Magnetizing Current (A)	36.6	44.5	47.6	49.3	64.5
額定轉速 Rated Speed (rpm)	1500	1500	1500	1500	1500
最高轉速 Max. Speed (rpm)	3500	3500	3500	3500	3500
重量 Weight (kg)	328.0	370.0	408.0	480.0	544.0
編碼器 Encoder	1024PPR RS422(Line-drive)/Push-Pull				
風扇 Elec.Fan	1φ 220/380V 50/60Hz 5.6/3.2A				
軸承 Bearings	LS:6316C3		OS:6315C3		

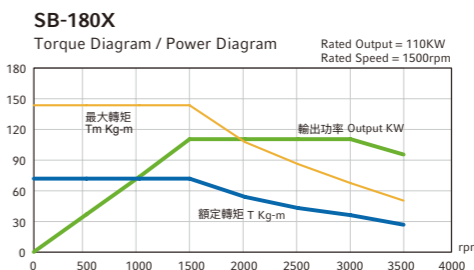
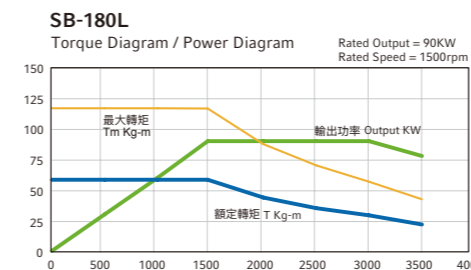
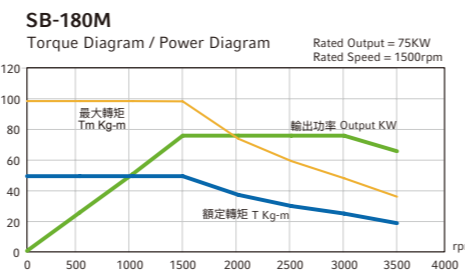
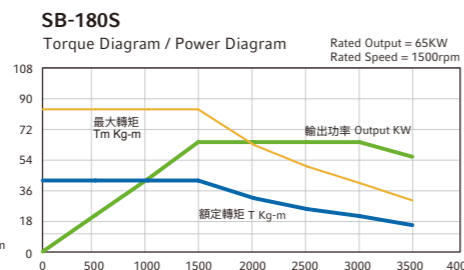
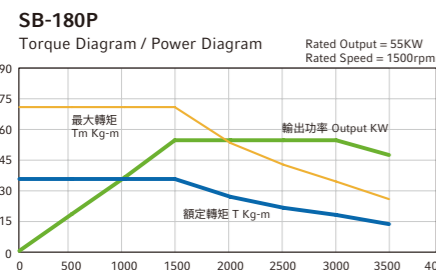
* 編碼器之選用依需求為主

一般條件 General Data

安裝方式 Mounting	IM 2001 (B3/B5)
保護方式 Protection	IP54 低慣量
轉子平衡 Rotor Balancing	R 級 (ISO2373) R Degree
絕緣等級 Insulation	H 級 Class H
冷卻系統 Cooling Sys.	強制通風 Forced Air Cooled
熱保護 Thermal Protection	熱保護器 (常閉) Thermal Protector(NC)
噪音 Noise	80dBA
周溫 Ambient Temp.	-15°C ~ 40°C
高度 Altitude	海拔 1000 米 1000m ASL
溫度感測器 Temperature sensor	KTY-84
服務係數 S.F	1.15

FUKUTA® 伺服馬達規格之選用

框號 Fr. No.	額定輸出 Rated Output	額定轉速 Rated Speed	最大轉矩 Max. Torque	額定轉矩 Rated Torque	額定電流 Rated Current		額定頻率 Rated Frequency
					330V	380V	
	kw	RPM	kg-m	kg-m			Hz
SB-180P	37	1000	72.12	36.06	80.2	69.7	34.0
	55	1500	71.47	35.73	114.9	99.8	50.7
	75	2000	73.08	36.54	150.6	130.8	67.4
SB-180S	100	3000	64.96	32.48	196.5	170.6	100.8
	45	1000	87.7	43.85	97.6	84.8	34.0
	65	1500	84.45	42.22	136.7	118.7	50.7
SB-180M	88	2000	85.76	42.88	180.7	156.9	67.4
	114	3000	74.06	37.03	225.5	195.8	100.8
	55	1000	107.18	53.59	120.7	104.8	34.0
SB-180L	75	1500	97.44	48.72	155.6	135.1	50.7
	100	2000	97.44	48.72	203.2	176.5	67.5
	132	3000	85.74	42.87	259.6	225.4	100.7
SB-180X	60	1000	116.94	58.47	126.2	109.6	34.0
	90	1500	116.94	58.47	182.9	158.8	50.7
	122	2000	118.88	59.44	244.9	212.7	67.4
SB-180X	160	3000	103.94	51.97	313.9	272.6	100.7
	75	1000	146.16	73.08	161.7	140.4	34.0
	110	1500	142.92	71.46	225.4	195.7	50.7
SB-180X	145	2000	141.3	70.65	287.2	249.4	67.4
	190	3000	123.42	61.71	372.1	323.1	100.7



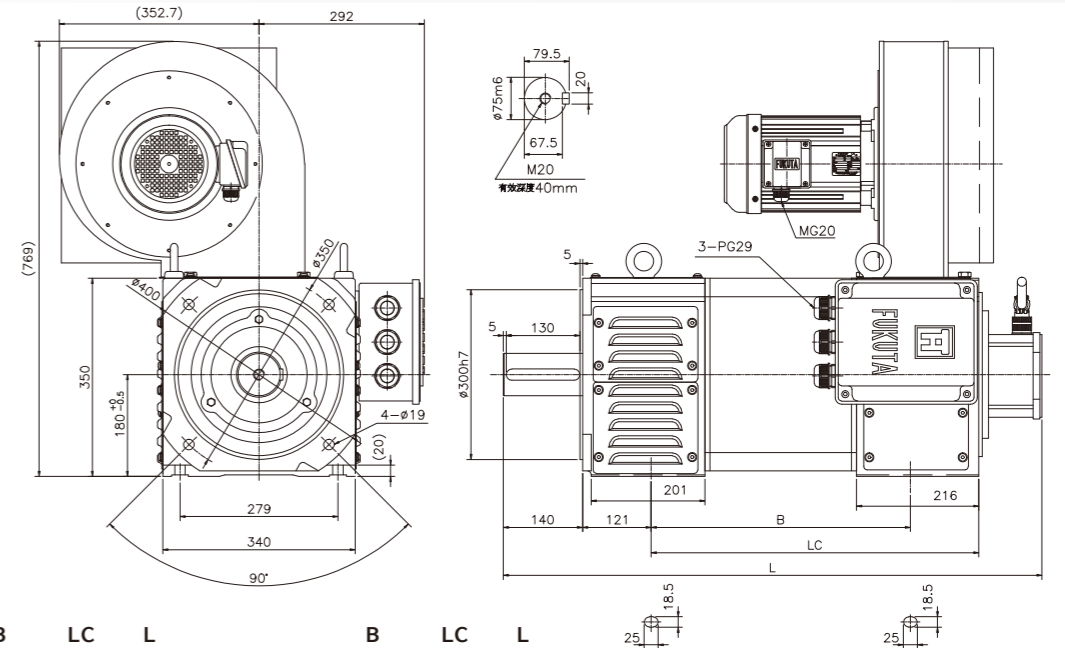
Servo Motor

感應伺服馬達

MODEL

SL-180

IP23 低慣量



	B	LC	L	B	LC	L
180P	458	579	952	180L	638	759
180S	508	629	1002	180X	708	829
180M	553	674	1047			

產品規格 Standard

輸出 Output (kw)	80	95	105	130	150
框號 Frame No.	180P	180S	180M	180L	180X
效率 Efficiency (%)	93.8%	93.7%	94.1%	94.4%	94.6%
功因 Power Factor	0.889	0.899	0.9	0.89	0.895
R1(Ω) @25°C	0.105	0.092	0.075	0.053	0.044
極數 Poles	4	4	4	4	4
轉動慣量 Rotor Inertial (kg-m ²)	0.4006	0.4807	0.5528	0.6889	0.801
激磁電流 Magnetizing Current (A)	46	48.3	53.4	72.7	79.6
額定轉速 Rated Speed (rpm)	1500	1500	1500	1500	1500
最高轉速 Max. Speed (rpm)	3500	3500	3500	3500	3500
重量 Weight (kg)	328.0	370.0	408.0	480.0	544.0
編碼器 Encoder	1024PPR RS422(Line-drive)/Push-Pull				
風扇 Elec.Fan	3φ 220/380V 50/60Hz 5.6/3.2A				
軸承 Bearings	LS:6316C3		OS:6315C3		

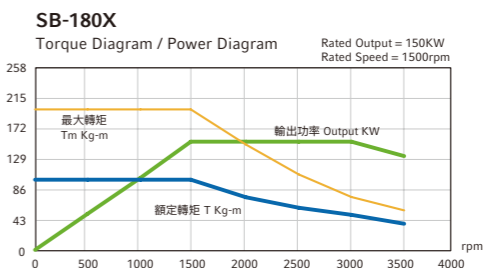
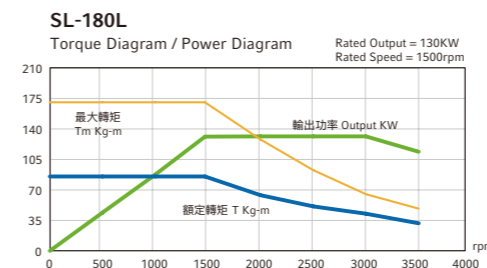
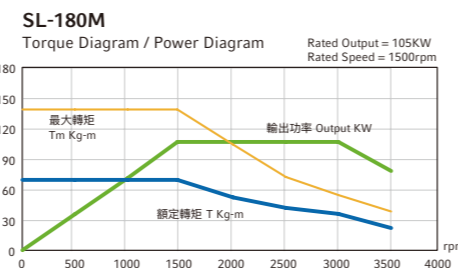
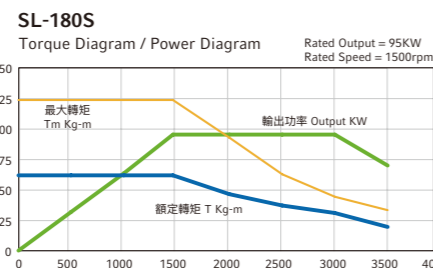
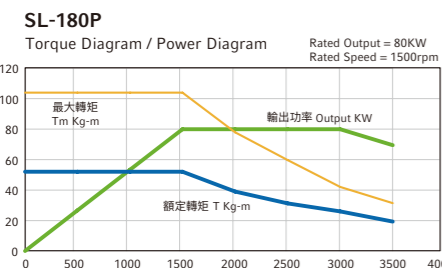
* 編碼器之選用依需求為主

一般條件 General Data

安裝方式 Mounting	IM 2001 (B3/B5)
保護方式 Protection	IP23 低慣量
轉子平衡 Rotor Balancing	R 級 (ISO2373) R Degree
絕緣等級 Insulation	H 級 Class H
冷卻系統 Cooling Sys.	強制通風 Forced Air Cooled
熱保護 Thermal Protection	熱保護器 (常閉) Thermal Protector(NC)
噪音 Noise	80dBA
周溫 Ambient Temp.	-15°C ~ 40°C
高度 Altitude	海拔 1000 米 1000m ASL
溫度感測器 Temperature sensor	KTY-84
服務係數 S.F	1.15

FUKUTA® 伺服馬達規格之選用

框號 Fr. No.	額定輸出 Rated Output	額定轉速 Rated Speed	最大轉矩 Max. Torque	額定轉矩 Rated Torque	額定電流 Rated Current		額定頻率 Rated Frequency
					330V	380V	
SL-180P	30	500	116.94	58.47	68.4	59.4	17.6
	60	1000	116.94	58.47	135.9	118.0	34.2
	80	1500	103.94	51.97	177.3	154.0	50.9
	110	2000	107.18	53.59	237.6	206.3	67.6
SL-180S	37	500	144.22	72.11	82.4	71.6	17.6
	70	1000	136.42	68.21	154.1	133.8	34.0
	95	1500	123.44	61.72	197.4	171.4	50.7
SL-180M	125	2000	121.8	60.9	256.1	222.4	67.4
	40	500	155.92	77.96	89.5	77.7	17.5
	80	1000	155.92	77.96	175.0	152.0	34.0
SL-180L	105	1500	136.42	68.21	216.9	188.4	50.7
	145	2000	141.3	70.65	295.0	256.2	67.5
	50	500	194.88	97.44	110.2	95.7	17.5
SL-180X	100	1000	194.88	97.44	214.4	186.2	34.0
	130	1500	168.9	84.45	270.5	234.9	50.7
	180	2000	175.4	87.7	363.0	315.2	67.4
SL-180X	55	500	214.38	107.19	119.8	104.0	17.5
	110	1000	214.38	107.19	233.6	202.9	34.2
	150	1500	194.88	97.44	309.9	269.1	50.7
	200	2000	194.88	97.44	399.5	346.9	67.4



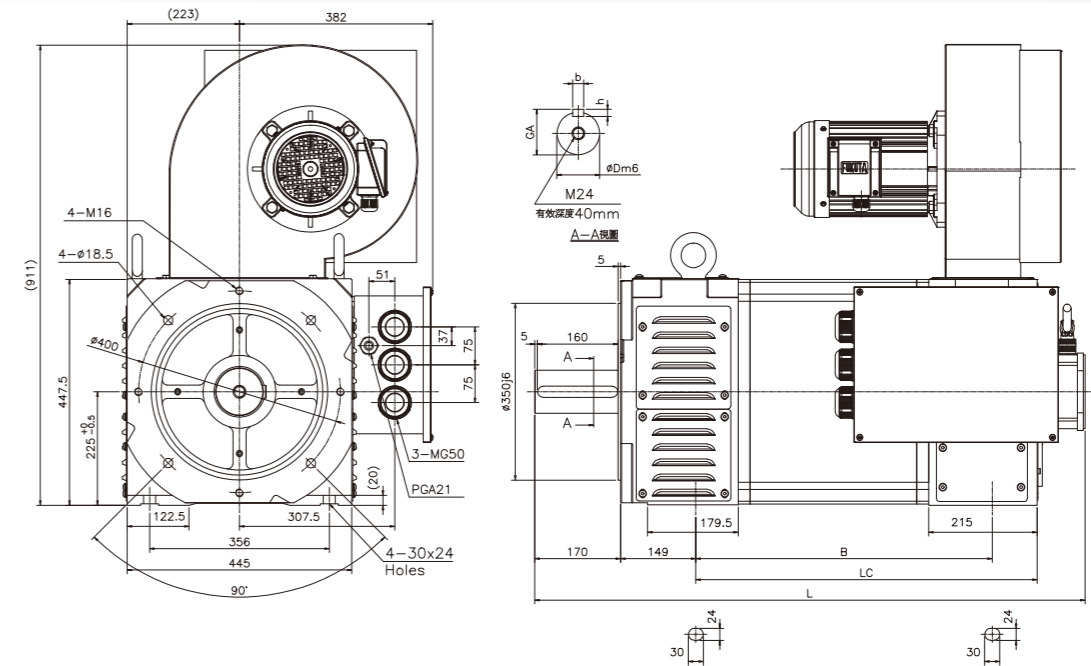
Servo Motor

感應伺服馬達

MODEL

SL-225

IP23 低慣量



	B	D	b x h	GA	LC	L		B	D	b x h	GA	LC	L
225S	587	85	22x14	90	676	1090	225L	757	95	25x14	100	846	1260
225M	657	85	22x14	90	746	1160	225X	857	95	25x14	100	946	1360

產品規格 Standard

輸出 Output (kw)	100	133	167	200
框號 Frame No.	225S	225M	225L	225X
效率 Efficiency (%)	93.6%	93.7%	93.9%	94.3%
功因 Power Factor	0.844	0.833	0.867	0.84
R1(Ω) @25°C	0.074	0.053	0.04	0.029
極數 Poles	4	4	4	4
轉動慣量 Rotor Inertial (kg-m ²)	1.2806	1.5522	1.9403	2.3284
激磁電流 Magnetizing Current (A)	65	83	91	128
額定轉速 Rated Speed (rpm)	1000	1000	1000	1000
最高轉速 Max. Speed (rpm)	3000	3000	3000	3000
重量 Weight (kg)	705.0	795.0	915.0	1040.0
編碼器 Encoder	1024PPR RS422(Line-drive)/Push-Pull			
風扇 Elec.Fan	3φ 220/380V 50/60Hz 8/4.6A			
軸承 Bearings	LS:6320C3		OS:6316C3	

* 編碼器之選用依需求為主

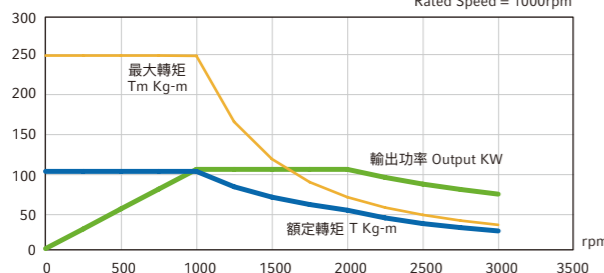
一般條件 General Data

安裝方式 Mounting	IM 2001 (B3/B5)
保護方式 Protection	IP23 低慣量
轉子平衡 Rotor Balancing	R 級 (ISO2373)
絕緣等級 Insulation	H 級 Class H
冷卻系統 Cooling Sys.	強制通風 Forced Air Cooled
熱保護 Thermal Protection	熱保護器 (常閉) Thermal Protector(NC)
噪音 Noise	80dBA
周溫 Ambient Temp.	-15°C ~ 40°C
高度 Altitude	海拔 1000 米 1000m ASL
溫度感測器 Temperature sensor	KTY-84
服務係數 S.F	1.15

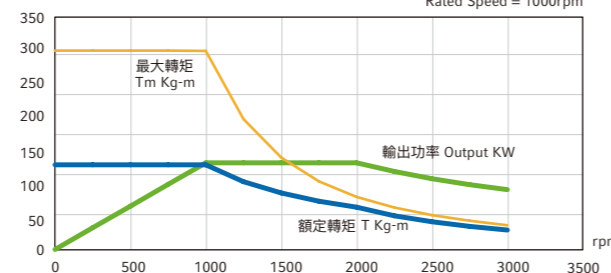
FUKUTA® 伺服馬達規格之選用

框號 Fr. No.	額定輸出 Rated Output kw	額定轉速 Rated Speed RPM	最大轉矩 Max. Torque kg-m	額定轉矩 Rated Torque kg-m	額定電流 Rated Current 380V	額定頻率 Rated Frequency Hz
SL-225S	50	500	223.95	97.55	98.7	17.3
	100	1000	243.06	97.54	188.5	34.5
	150	1500	258.18	97.44	273	50.6
	185	2000	251.2	90.18	341.6	67.3
SL-225M	67	500	278	130.72	130.9	17.4
	133	1000	304.06	129.77	242	34
	185	1500	321.93	120.2	353.3	50.6
	230	2000	307.53	112.08	424.1	67.3
SL-225L	84	500	349.57	163.75	162.4	17.4
	167	1000	370.17	162.78	308.6	34.3
	220	1500	374.28	142.91	402.1	50.6
	275	2000	402.04	134	524.3	67.2
SL-225X	100	500	430.05	195	193.4	17.3
	200	1000	466.78	195.06	376.6	34.6
	300	1500	489.76	194.9	566.5	50.6
	375	2000	502.37	182.71	718.8	67.3

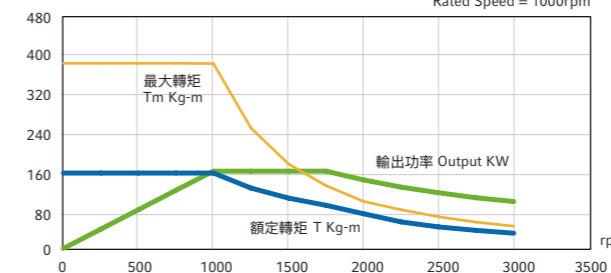
SL-225S Torque Diagram / Power Diagram
Rated Output = 100KW
Rated Speed = 1000rpm



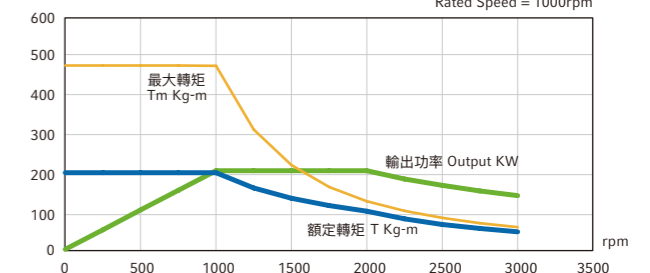
SL-225M Torque Diagram / Power Diagram
Rated Output = 133KW
Rated Speed = 1000rpm



SL-225L Torque Diagram / Power Diagram
Rated Output = 167KW
Rated Speed = 1000rpm



SL-225X Torque Diagram / Power Diagram
Rated Output = 200KW
Rated Speed = 1000rpm

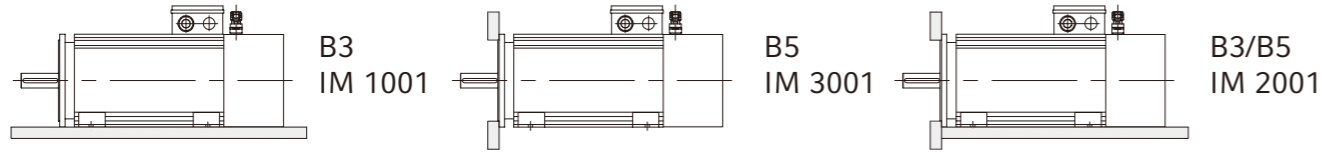


Servo Motor

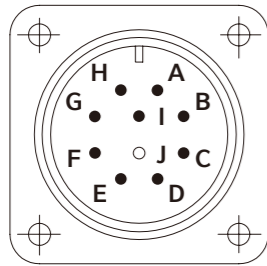
感應伺服馬達

另有其他系列別產品：直結式油壓伺服馬達，如需詳細資料請洽富田電機（股）公司

安裝及位置 Mountings and Positions

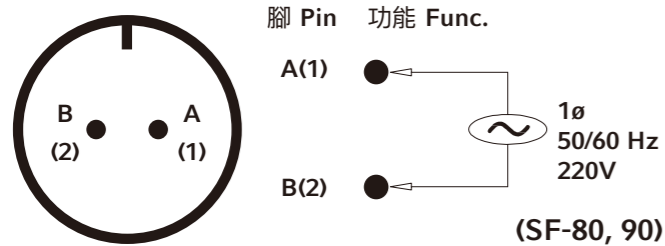


編碼器接頭 Encoder Connector

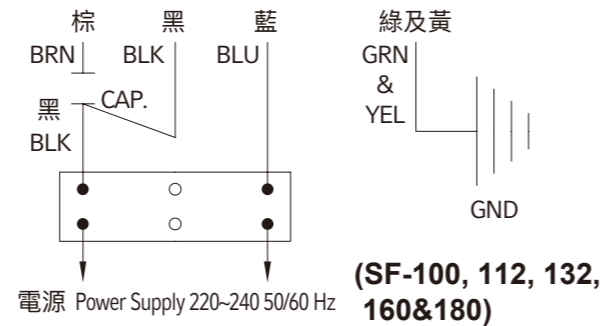


腳 Pin	功能 Func.
A	A
B	B
C	Z
D	A
E	B
F	Z
G	遮蔽 Shield
H	電源 Power
I	COM Common
J	---

風扇接頭 Fan Connector

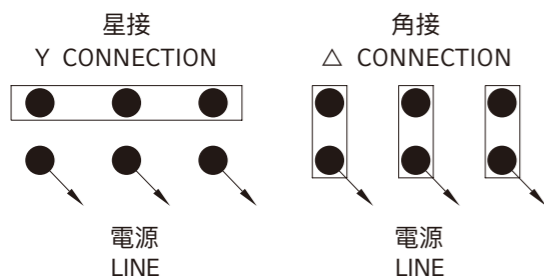


風扇端子台 Fan Terminal Board

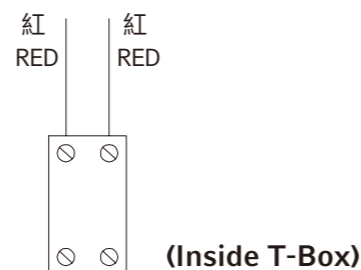


主電源端子台

Terminal Board for Main Power
(Include SA series #132~280 Blower Terminal Board)



熱保護器 Thermal Protector



選用配件 Optional Accessory 伺服用煞車規格 Servo Brake for SF Series

框號 Frame	煞車扭力 Brake Torque kg-m	最高轉速 Max Speed RPM	電壓 Power Supply VDC	剎車轉動慣量 Brake Inertia kg-m ²	功率 Input Power w	重量 Weight kg
80	1.5	5000	90V	0.001	33	2.5
90	2.0	5000	90V	0.0015	40	2.7
100	2.5	5000	90V	0.003	45	3.8
112	5.0	5000	90V	0.006	50	6.2
132	11.5	3000	90V (24V)	0.045	62	12
160	22.3	3000	90V (24V)	0.065	76	18

◎ 此份型錄所載有關產品之細節，包含特性與規格尺寸為交付印刷廠時之正確數據無誤。
由於對產品持續研發之故，對於產品特性規格，本公司保留有隨時更改之權利。

All detail and specifications are correct at time of going to press, We reserve the right to make changes without notice in the course of continued development.

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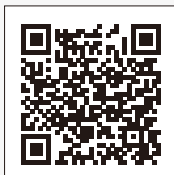
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