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經銷商



齒輪減速機選型手冊

臺灣瑞思科傳動科技有限公司



齒輪減速電機

GEAR MOTOR

- RCR系列斜齒輪減速電機
- RCF系列平行軸-斜齒輪減速電機
- RCK系列斜齒輪-傘齒輪減速電機
- RCS系列斜齒輪-蝸輪蝸杆減速電機

- RCR Helical Geared Motor
- RCF Parallel Shaft-Helical Geared Motor
- RCK Helical-Bevel Geared Motor
- RCS Helical-Worm Geared Motor



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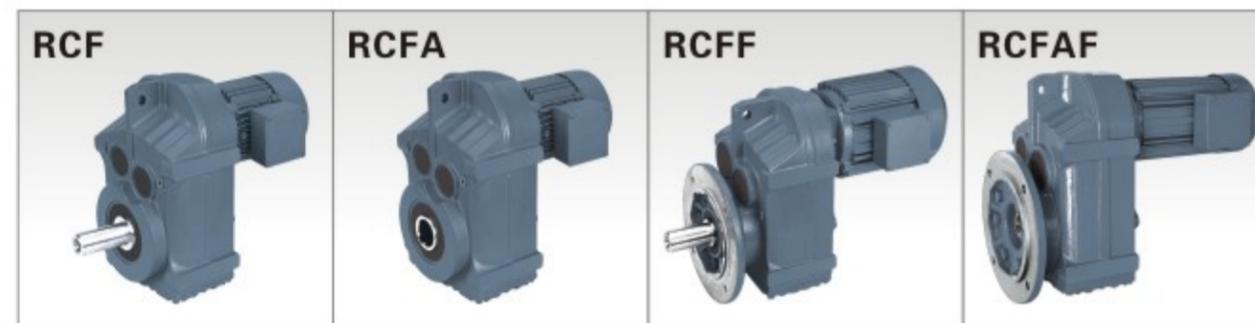
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1. 產品圖片 Product Pictures

RCR 斜齒輪減速電機 RCR Helical Geared Motor



RCF 平行軸-斜齒輪減速電機 RCF Parallel Shaft-Helical Geared Motor



RCK 斜齒輪-傘齒輪減速電機 RCK Helical-Bevel Geared Motor



RCS 斜齒輪-蝸輪蝸杆減速電機 RCS Helical-Worm Geared Motor



2. 產品說明 Product Introduction

瑞思科四大系列硬齒面齒輪減速電機是具有國際先進水平的著名品牌產品，包括RCR系列斜齒輪減速電機、RCF系列平行軸-斜齒輪減速電機、RCK系列斜齒輪-傘齒輪減速電機、RCS系列斜齒輪-蝸輪蝸杆減速電機。

瑞思科四大系列產品遵循模塊化、最優化設計理念，運用有限元分析技術，採用獨特的低噪音齒輪齒形設計，確保設計的先進性；傳動比分級精細，具備數百萬種不同的組合，可滿足用戶各種不同需求；從選料到制造單元加工，實現產品的高精度、免維護。

我公司還備有雙聯型減速電機（輸入端加裝一個斜齒輪減速器）、鎖緊盤、花鍵空心軸、B14法蘭等多種組合方式供客戶選擇，詳情請向我公司諮詢。

RISC series Geared Motor is the famous brand in drive field with international advanced level, including RCR series Helical Geared Motor, RCF series Parallel Shaft-Helical Geared Motor, RCK series Helical-Bevel Geared Motor, RCS series Helical-Worm Geared Motor.

RISC series products follow motor the philosophy of modularization and optimization, adopt finite element analysis method and unique lower noise technology in designing gear, to insure advanced design. The classification of ratio is so accurate that.

Our corporation also provides other product options such as combined geared motor, shrink disk, spline hollow shaft, B14 flange, please consult our company for further information.

3. 型號說明 Model Notes

3.1 減速電機符號說明

3.1 Reducer Model Introduction

RCR	F	67	II	D	80	N	4	/	BMG	HF	TF	128.97	M1	180°
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1 產品代碼 RCR--斜齒輪減速電機 RCF--平行軸-斜齒輪減速電機 RCK--斜齒輪-傘齒輪減速電機 RCS--斜齒輪-蝸輪蝸杆減速電機	2 裝配型式 無代碼--底腳安裝 F--法蘭安裝 ..F--底腳法蘭安裝 M--法蘭安裝帶加長軸承箱 X--底腳安裝單級傳動 XF--法蘭安裝單級傳動	3 減速機規格號 67--減速機規格號為67	4 法蘭盤大小 無代碼--無法蘭，或只有一種法蘭，或一種以上法蘭中的最小法蘭 II--兩種法蘭中的最大法蘭，三種法蘭中的中法蘭 III--三種法蘭中的最大法蘭	5 電動機 D--三相异步電動機 (IP54)	6 電動機規格號 80--電機中心高為80mm	7 電動機定子鐵芯長度代號 D、K、N、S、M、ML、L	8 電動機極數 4--電動機極數為4	9 制動器 無代碼--無制動器 BMG--制動器	10 手動釋放裝置 無代碼--無手動釋放裝置 HF--手動釋放裝置帶自鎖功能 HR--手動釋放裝置不帶自鎖功能	11 電機熱保護 無代碼--無電機熱保護裝置 TF--電機熱保護裝置	12 減速機傳動比 128.97--減速機傳動比為128.97	13 安裝位置 M1--安裝型式圖中M1位置	14 接線盒位置 無代碼--安裝型式圖中0°位置 180°--安裝型式圖中180°位置	

RCS	A	67	/	T	D	80	N	4	/	BMG	/	HF	/	TF	/	106.75	/	d45	/	B	/	M1	/	180°	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16										
1 產品代碼 RCF--平行軸-斜齒輪減速電機 RCK--斜齒輪-傘齒輪減速電機 RCS--斜齒輪-蝸輪蝸杆減速電機	2 裝配型式 無代碼--底腳安裝 F--法蘭安裝 A--空心軸安裝 AF--法蘭空心軸安裝	3 減速機規格號 67--減速機規格號為67	4 扭矩臂 無代碼--無扭矩臂 T--扭矩臂 (適用於K、S) G--扭矩臂 (適用於F)	5 電動機 D--三相异步電動機 (IP54)	6 電動機規格號 80--電機中心高為80mm	7 電動機定子鐵芯長度代號 D、K、N、S、M、ML、L	8 電動機極數 4--電動機極數為4	9 制動器 無代碼--無制動器 BMG--制動器	10 手動釋放裝置 無代碼--無手動釋放裝置 HF--手動釋放裝置帶自鎖功能 HR--手動釋放裝置不帶自鎖功能	11 電機熱保護 無代碼--無電機熱保護裝置 TF--電機熱保護裝置	12 減速機傳動比 106.75--減速機傳動比為106.75	13 空心軸孔徑 無代碼--標準型 d45--空心軸孔徑為45H7 (尺寸表中兩種孔徑選擇一種)	14 軸指向 無代碼--標準型 A--軸指向為A B--軸指向為B AB--雙輸出	15 安裝位置 M1--安裝型式圖中M1位置	16 接線盒位置 無代碼--安裝型式圖中0°位置 180°--安裝型式圖中180°位置										

3.2 減速電機和減速制動電機供貨型號

3.2 Type of gear motor and gear motor with brake

RCR、RCF、RCK、RCS
 減速電機 Gear motor

下表列出了可提供的斜齒輪(RCR)、平行軸(RCF)、斜齒輪-傘齒輪(RCK)和斜齒輪-蝸輪蝸杆(RCS)減速電機型號。

There are the types of Helical(RCR), Parallel shaft-Helical(RCF), Helical-Bevel(RCK) and helical-Worm (RCS) geared motors. we supplied in the table.

型號 Model	減速電機			
	斜齒輪 (R) Helical	平行軸 (F) Parallel shaft	斜齒輪-傘齒輪 (K) Helical bevel	斜齒輪-蝸輪蝸杆 (S) Helical worm
底腳安裝 Foot mounted	•	•	•	•
B5法蘭安裝 B5 flange mounted	•	•	•	•
底腳/B5法蘭安裝 Foot/B5 flange mounted	• 2)	•	• 3)	-
帶鍵空心軸安裝 Hollow shaft mounted	-	•	• 1)	• 1)
帶鎖緊盤空心軸安裝 Hollow shaft with shrink disk	-	•	• 1)	• 1)
帶花鍵空心軸安裝 Splined hollow shaft mounted	-	•	• 1)	-
帶鎖緊盤空心軸安裝+底腳安裝 Hollow shaft with shrink disk+foot mounted	-	•	•	-
帶鍵空心軸安裝+底腳安裝 Hollow shaft with Key+foot mounted	-	•	•	-
帶花鍵空心軸安裝+底腳安裝 Splined hollow shaft mounted+foot mouted	-	•	•	-
帶鍵空心軸安裝+B5法蘭安裝 Hollow shaft with Key+B5 flange mounted	-	•	•	•
帶鎖緊盤空心軸安裝+B5法蘭安裝 Hollow shaft with shrink disk+B5 flange mounted	-	•	•	•
帶花鍵空心軸安裝+B5法蘭安裝 Splined hollow shaft mounted+B5 flange mounted	-	•	•	-
帶鍵空心軸安裝+B14法蘭安裝 Hollow shaft with Key+B14 flange mounted	-	•	•	•
帶鎖緊盤空心軸安裝+B14法蘭安裝 Hollow shaft with shrink disk+B14 flange mounted	-	•	•	•
帶花鍵空心軸安裝+B14法蘭安裝 Splined hollow shaft mounted+B14 flange mounted	-	•	•	-

• 適用於標準型號
 - 不可用

- 1) 也可帶力矩臂
 2) 僅用於RCR17-RCR87
 3) 僅用於RCK127-RCK157

• The normal type
 - Can't use

- 1) You can use torque arm
 2) Only used for RCR12-RCR87
 3) Only used for RCK127-RCK157

多級減速電機 Multi-stage geared motor

通過多級減速器或多減速電機，可獲得特別低的輸出轉速。就是在輸入端安裝一個斜齒輪減速機或減速電機作為第二級齒輪箱。此時，要注意根據減速機最大許用的輸出扭矩，限制電機功率。

You can achieve the particularly low output speed by using multi-stage geared motor. The method is mounting a helical gear unit as a second gear units on the input end. Notice that restrict the motor power according the maximum permitted output torque.

攪拌專用減速電機 RCRM geared motor

RCRM減速電機作為斜齒輪減速電機的特殊規格，它帶有一個加長的軸承箱，專為攪拌應用場合設計的，它應用于承受大的徑向力和軸向力甚至彎矩的場合，其它數據和斜齒輪減速電機相一致。

RCRM geared motors are a special type of helical geared motor with an expanded output bearing hub. They are specially designed for agitating applications and can be used in applications subject to high overhung and axial loads as well as flexural torque. The remaining data correspond with to the standard helical geared motors.

制動電機 Brake motors

根據需要可把機械制動與電機及減速電機合成一體提供。制動器是由帶直流繞圈的電磁盤式制動器，通過電磁力打開，彈簧力制動。它的制動原理意味着斷電制動。滿足了基本安全需要。制動器如果安裝手動釋放，可實現機械式釋放。手動釋放有手柄或平頭螺絲兩種形式，手柄可自動彈回，平頭螺絲可鎖在釋放位置。制動器通過裝在電機接線盒或電氣櫃的制動控制系統來驅動。

On request, Motors and geared motors can be supplied with an integrated mechanical brake. The brake is an electromagnetic disk brake with a DC coil which is released electrically and braked using spring force. The design principle means the brake is applied if the power fails. This means it complies with fundamental safety requirements. The brake can also be released mechanically if fitted with manual brake release. For this purpose, either a hand lever or a setscrew is supplied with the brake. The hand lever springs back automatically and the setscrew can be locked. The brake is activated by a brake control system which is in the wiring switch cabinet.

3.3 減速器及附件的名稱

3.3 Unit designations for gear units and options

斜齒輪減速器 Helical gear units

RCR..	底腳安裝 Foot-mounted
RCRF..	法蘭安裝 Flange-mounted
RCR..F	底腳-法蘭安裝 Foot and flange-mounted
RCRM..	帶加長軸承箱，法蘭安裝 Flange-mounted with the extended bearing housing
RCRX..	單級底腳安裝 Single-stage flange-mounted
RCRXF..	單級法蘭安裝 Single-stage foot-mounted

平行軸減速器 Parallel shaft helical gear units

RCF..	底腳安裝 Foot mounted
RCFA..B	底腳安裝，空心軸 Flange mounted with hollow shaft
RCFH..B	底腳安裝，帶鎖緊盤空心軸 Foot mounted with hollow shaft and shrink disk
RCFV..B	底腳安裝，帶花鍵空心軸 Foot mounted with hollow shaft and splined hollow shaft
RCFF..	B5法蘭安裝 B5 flange mounted
RCFAF..	B5法蘭安裝，空心軸 B5 flange mounted with hollow shaft
RCFHF..	B5法蘭安裝，帶鎖緊盤空心軸 B5 flange mounted with hollow shaft and shrink disk
RCFVF..	B5法蘭安裝，帶花鍵空心軸 B5 flange mounted with spined hollow shaft disk
RCFA..	空心軸安裝 Hollow shaft mounted
RCFH..	帶鎖緊盤空心軸安裝 Hollow shaft with shrink disk

RCFV..	帶花鍵空心軸安裝 Splined hollow shaft mounted
RCFAZ..	B14法蘭安裝, 空心軸 B14 flange mounted with hollow shaft
RCFHZ..	B14法蘭安裝, 帶鎖緊盤空心軸 B14 flange mounted with hollow shaft disk
RCFVZ..	B14法蘭安裝, 帶花鍵空心軸 B14 flange mounted with splined hollow shaft

斜齒輪-傘齒輪減速器
Helical-Bevel gear units

RCK..	底腳安裝 Foot mounted
RCKA..B	底腳安裝, 空心軸 Foot mounted with hollow shaft
RCKH..B	底腳安裝, 帶鎖緊盤空心軸 Foot mounted with hollow shaft and shrink disk
RCKV..B	底腳安裝, 帶花鍵空心軸 Foot mounted with hollow shaft and splined hollow shaft
RCKF..	B5法蘭安裝 B5 flange mounted
RCKAF..	B5法蘭安裝, 空心軸 B5 flange mounted with hollow shaft
RCKHF..	B5法蘭安裝, 帶鎖緊盤空心軸 B5 flange mounted with hollow shaft and shrink disk
RCKVF..	B5法蘭安裝, 帶花鍵空心軸 B5 flange mounted with spined hollow shaft disk
RCKA..	空心軸安裝 Hollow shaft mounted
RCKH..	帶鎖緊盤空心軸安裝 Hollow shaft with shrink disk
RCKV..	帶花鍵空心軸安裝 Splined hollow shaft mounted
RCKAZ..	B14法蘭安裝, 空心軸 B14 flange mounted with hollow shaft
RCKHZ..	B14法蘭安裝, 帶鎖緊盤空心軸 B14 flange mounted with hollow shaft disk
RCKVZ..	B14法蘭安裝, 帶花鍵空心軸 B14 flange mounted with spined hollow shaft

斜齒輪-蝸輪蝸杆減速器
Helical-Worm gear units

RCS..	底腳安裝 Foot mounted
RCSF..	B5法蘭安裝 B5 flange mounted
RCSAF..	B5法蘭安裝, 空心軸 B5 flange mounted with hollow shaft
RCSHF..	B5法蘭安裝, 帶鎖緊盤空心軸 B5 flange mounted with hollow shaft and shrink disk
RCSA..	空心軸安裝 Hollow shaft mounted
RCSH..	帶鎖緊盤空心軸安裝 Hollow shaft with shrink disk
RCSAZ..	B14法蘭安裝, 空心軸 B14 flange mounted with hollow shaft
RCSHZ..	B14法蘭安裝, 帶鎖緊盤空心軸 B14 flange mounted with hollow shaft disk

3.4 交流電機及附件名稱
3.4 The name of AC motors and its accessories
雙速交流電機型號
Pole-Changing AC motors with soft start

SD...	雙速電機底腳安裝 Pole-changing foot mounted
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電機選型
Motor options

BMG	制動器 Brake
../HF	手動釋放 (鎖在制動釋放位置) ..with lock manual brake release
../HR	手動釋放 (自動返回制動位置) ..with automatic manual brake disengaging
/RE	逆止器 Backstop
/TF	熱敏電阻保護裝置 (PTC熱敏電阻) Thermistor sensor(PTC resistance)
/TH	恆溫器保護裝置 (雙金屬片開關) Thermostat (bimetallic switch)
/U	機身冷卻 (無通風) Non-ventilated
/V	強制冷風扇3 × 380-415V _{AC} , 50HZ Forced cooling fan.3 × 380-415V _{AC} , 50HZ
/VS	強制冷風扇1 × 220-266V _{AC} , 50HZ Forced cooling fan.1 × 220-266V _{AC} , 50HZ
/VR	強制冷風扇1 × 24V _{DC} Forced cooling fan.1 × 24 _{DC}
/Z	高慣量飛輪風扇 Additional flywheel mass
/C	風扇保護罩 Protection cowl for the fan guard
-SRD	輓道電機 Roller motor

編碼器附件
Encoder on AC motor options

/AV1Y	絕對值編碼器, MSI和sin/cos信號, 24V _{DC} 電源 Absolute encoder with solid shaft. MSI and sin/cos signals and 24V _{DC} supply
/ES..T	擴展軸編碼器, TTL (RS-422) 信號, 5V _{DC} 電源 Encoder with spread shaft. TTL(RS-422)Signals and 5V _{DC} supply
/ES..S	擴展軸編碼器, sin/cos信號, 24V _{DC} 電源 Encoder with spread shaft. Sin/cos signals and 24V _{DC} supply
/ES..R	擴展軸編碼器, TTL (RS-422) 信號, 24V _{DC} 電源 Encoder with spread shaft, TTL(RS-422)signals and 24 _{DC} supply
/ES..C	擴展軸編碼器, HTL Encoder with spread shaft, HTL
/EV1T	實心軸編碼器, TTL (RS-422) 信號, 5V _{DC} 電源 Encoder with spread shaft. TTL(RS-422)signals and 5V _{DC} supply
/EV1S	實心軸編碼器, sin/cos信號, 24V _{DC} 電源 Encoder with spread shaft. signals and 24V _{DC} supply
/EV1R	實心軸編碼器, TTL (RS-422) 信號, 24V _{DC} 電源 Encoder with spread shaft. TTL(RS-422)signals and 24V _{DC} supply
/EV1C	實心軸編碼器, HTL Encoder with spread shaft, HTL
/NV1..	接近開關, 帶A通道, 24V _{DC} 電源 Proximity sensor with A track and 24V _{DC} supply
/NV2..	接近開關, 帶A、B通道, 24V _{DC} 電源 Proximity sensor with A/B track and 24V _{DC} supply

4. 減速器選型

4.1 傳動裝置選型數據

準確地確定所需傳動裝置，下表所列的數據是必需的：

傳動裝置選型數據		
n_{amin}	最小輸出轉速	[rpm]
n_{amax}	最大輸出轉速	[rpm]
P_a at n_{amin}	最低輸出轉速下的輸出功率	[kW]
p_a at n_{amax}	最高輸出轉速下的輸出功率	[kW]
M_a at n_{amin}	最低輸出轉速下的輸出扭矩	[Nm]
M_a at n_{amax}	最高輸出轉速下的輸出扭矩	[Nm]
F_R	輸出軸徑向力。假設載荷作用在軸伸的中點，如果不一致，請確定徑向力準確的作用點、作用角度和軸的旋轉方向以便進行校核計算。	[N]
F_A	輸出軸軸向負載（拉力和壓力）	[N]
J_{load}	被驅動件的轉動慣量	[10 ⁻⁴ kgm ²]
RCR/F/K/S M1-M6	所需減速機類型和安裝位置	-
IP..	外殼防護等級	-
θ_{env}	環境溫度	[°C]
H	海拔高度	[M above sea level]
S_{...%}Cdf	工作制和負載持續率cdf;也可給出精確的負載周期圖	-
Z	啓停頻率; 也可給出精確的負載周期圖	[No.per h]
f_{mains}	電源頻率	[Hz]
V_{mot} V_{brake}	電機工作電壓和制動器電壓	[V]
M_B	所需制動力矩	[Nm]
對於變頻器運行：控制模式和設置範圍		

4. Selection of gear reducer

4.1 Drive selection data

Certain data are essential to specify the components for your drive. These are.

Drive selection data		
n_{amin}	Minimum output speed	[rpm]
n_{amax}	Maximum output speed	[rpm]
P_a at n_{amin}	Output power at minimum output speed	[kW]
p_a at n_{amax}	Output power at maximum output speed	[kW]
M_a at n_{amin}	Output torque at minimum output speed	[Nm]
M_a at n_{amax}	Output torque at maximum output speed	[Nm]
F_R	Overhung load on output shaft.Assumes force application is in the center of shaft end. If not,please specify the exact application point indicating the application angle and direction of rotation of the shaft for a check calculation	[N]
F_A	Axial load(tension and compression)on output shaft	[N]
J_{load}	Mass moment of inertia to be driven	[10 ⁻⁴ kgm ²]
RCR/F/K/S M1-M6	Required gear unit type and mounting position(→sec. Mounting positions,churning losses	-
IP..	Required protect rank	-
θ_{env}	Ambient temperature	[°C]
H	Altitude	[M above sea level]
S_{...%}Cdf	Operating mode and intermittency factor cdf; alternatively,exact load cycle can be specified.	-
Z	Starting frequency;alternatively,exact load cycle can be specified	[No.per h]
f_{mains}	Supply frequency	[Hz]
V_{mot} V_{brake}	Operating voltage of motor and brake	[V]
M_B	Required braking torque	[Nm]
For inverter operation: Required control mode and setting range		

4.2 選型流程圖

4.2 Project planning sequence

例 Example 帶有位置要求驅動方案的流程示意圖，所涉及的減速電機由變頻器控制
The following flowchart displays a schematic view of the procedure for planning a project incorporating a positioning drive. The drive comprises a geared motor which is powered by and inverter



圖：選型應用流程圖 Figure:Project planning process

4.3 減速機的效率

4.3 Efficiency of gear units

減速機的效率主要由齒輪嚙合和軸承摩擦損失所決定的。減速機運行初期的效率總是比正常運行時要低，尤其是斜齒輪蝸輪蝸杆和螺旋平面減速機更為明顯。

The efficiency of the gear units is mainly determined by the gearing, mesh and bearing friction. Please note that the starting efficiency of a gear unit is always less than its efficiency at operating speed. This fact is especially obvious in helical-worm and right-angle geared motors.

RCR.RCF.RCK減速機 RCR.RCF.RCK gear units

斜齒輪、平行軸、斜齒輪-錐齒輪減速機的效率是根據減速級數確定，在94%(3級)~98%(1級)之間。

The efficiency of helical, parallel shaft and helical-bevel gear units varies according to the unumber of gear stages, between 94%(3-stage)and 98%(1-stage).

RCS減速機 RCS gear units

斜齒輪蝸杆減速機由于產生高損失的滑動摩擦，所以它們比RCR、RCF、RCK減速機損失大、效率低，主要是由以下因素決定：
·斜齒輪蝸杆級的傳動比
·輸入轉速
·齒輪箱溫度
RISC設計的斜齒輪蝸杆減速機比單級的蝸輪蝸杆減速機的效率有明顯的提高，對於很大速比的斜齒輪蝸輪蝸杆才有可能其效率 $\eta < 0.5$ 。

The gearing in helical-worm and gear units produces a high proportion of sliding friction. As a result, these gear units may have higher gearing losses than RCR, RCF or RCK gear units, and thus be less efficient. The cause of factors are:

- Gear ratio of the helical-worm
- Input speed
- Gear unit temperature

RISC gear units are designed as helical worm which makes them significantly more efficient than standard worm gear units. The efficiency may reach $\eta < 0.5$ if the helical-worm stage has a very high ratio step.

自鎖條件

Self-locking condition

在斜齒輪-蝸輪蝸杆上加反向力矩會產生一個反向效率 $\eta' = 2 - 1/\eta$ ，其值明顯小於正向效率 η ，如果正向效率 $\eta \leq 0.5$ ，那麼斜齒輪蝸輪蝸杆減速機會自鎖。僅有少量大速比的斜齒輪蝸輪蝸杆減速機靜態自鎖。如果想利用自鎖的制動效果特點請向我公司諮詢。

Retrodriving torques on helical-worm gear units produce an efficiency of $\eta' = 2 - 1/\eta$, which is significantly less favorable than the forwards efficiency η . The helical-worm or Spiroplan gear unit is self-locking if the forwards efficiency $\eta \leq 0.5$. A few helical-worm gear units with the largest gear ratio are statically self-locking. Please contact company if you wish to wish to make technical use of the braking effect of self-locking characteristics.

運行初始階段

Running-inphase

由于新的斜齒輪蝸杆減速機齒面不够光滑、摩擦角較大，所以效率較正常運行時要小，這種影響在大傳動比時變得更加明顯。

The tooth flanks of new helical-worm and gear units are not yet completely smooth. For the friction angle is greater, the efficiency will be less than operation. This effect becomes more apparent in the greater ratio.

在運初試階段，所給定的效率值應減去表中數值：

In The first beginning, the given efficiency number should minus as follows

	Helical-worm	速比的範圍
1start (單頭蝸杆)	approx.12%	approx.50-280
2start (雙頭蝸杆)	approx.6%	approx.20-75
3start (三頭蝸杆)	approx.3%	approx.20-90
4start (四頭蝸杆)	-	-
5start (五頭蝸杆)	approx.3%	approx.6-25
6start (六頭蝸杆)	approx.2%	approx.7-25

經過連續24小時運行，斜齒輪蝸輪蝸杆滿足以下條件可以達到給出的額定效率：

- 減速機經過充分的試運行
- 減速機達到正常運行溫度值
- 加入推薦的潤滑劑

減速機的額定的負載範圍內工作

The running-in phase normally lasts 24 hours. Helical-worm gear units achieve their listed rated efficiency values when:

- The gear unit has been run is completely
 - The gear unit has reached normal operation temperature
 - The recommended lubricant has been filled in
- The gear unit is working within the rated load range

攪動損失

Churning losses

在某些安裝位置，第一級小齒輪完全浸在油中，對於大機座減速機和有較高輸入轉速的減速機，攪動損失會急劇上升，不能忽視，因此，當遇到此類情況請向我公司諮詢。

如果可能，對於RCR、RCK和RCS系列減速機盡量使用M1安裝位置以確保較小的攪動損失。

In certain gear unit mounting positions the first reduction stage is completely immersed in the lubricant. For large gear unit sizes and high circumferential velocities of the input stage, this gives rise to churning losses constituting a factor which cannot be ignored. Please contact company if you wish to use gear units of this type. If possible, use the mounting position M1 for RCR, RCK and RCS gear units in order to keep the churning losses in low.

4.4 使用系數

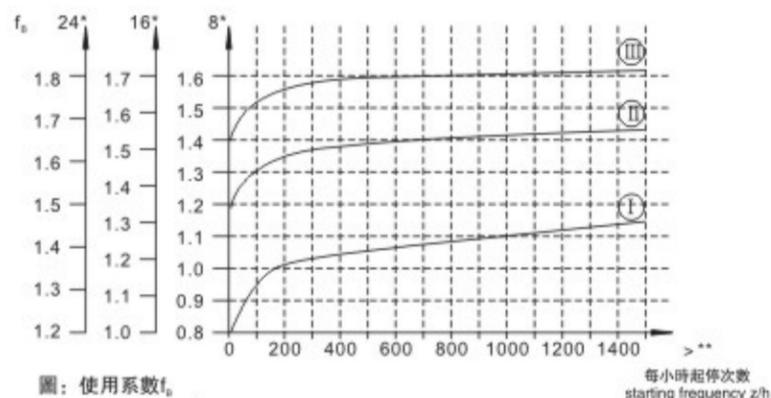
4.4 Service factor

決定使用系數的因素

Determining of the service factor

選用減速箱要考慮一定的使用系數用 f_s 表示，使用系數 f_s 由每天的運行時間和起停頻率所決定，根據慣量加速系數確定的三種負載類型也要考慮，可以從圖3中讀取驅動方案的使用系數，從圖中確定的使用系數一定要小於或等於從選型表中所給定的使用系數。

Gear unit selection needs to consider a certain factor which we use f_s to express. This service factor is determined by the daily operating time and the starting frequency. Three load classifications are also considered to depend on the mass acceleration factor. You can read the different service factor from the figure as follows. The service factor determined using this diagram must be small than or equal to the service factor as given in the selection tables.



圖：使用系數 f_s
Fig:service factor f_s

*運行小時/天

**起停次數，包括所在的起停和制動過程，所括從低到高，從高到低變換過程。

Daily operating time in hours/day

Starting frequency Z:The cycles include all starting and and braking procedures as well as changes from low to high and high to low speed.

負載類型

Load classification

三種負載類型：

- 均勻載荷，允用的慣性加速系數 ≤ 0.2
- 中等衝擊載荷，允許的慣性加速系數 ≤ 0.3
- 強衝擊載荷，允許的慣性加速系數 ≤ 10

Three load classifications are differentiated:

- Uniform, approved mass acceleration factor ≤ 0.2
- Moderate shock load, approved mass acceleration factor ≤ 3
- Severe shock load, approved mass acceleration factor ≤ 10

慣性加速系數

Mass acceleration factor

慣性加速系數的計算方式：

The mass acceleration factor is calculated as follows:

$$\text{慣性加速系數} = \frac{\text{所有的外部轉動慣量}}{\text{電動機的轉動}}$$

$$\text{Mass acceleration factor} = \frac{\text{All external mass moments of inertia}}{\text{Mass moment of inertia on the motor end}}$$

所有的外部轉動慣量是指被驅動裝置加上減速機相對於電機轉速的轉動慣量，

折算公式如下： $J_s = j \cdot \left(\frac{n}{n_m}\right)^2$

"All external mass moments of inertia" are the mass moments of inertia of the driven machine and the gear unit, scaled down to the motor speed. The calculation for scaling down to the motor speed performed using the following formula: $J_s = j \cdot \left(\frac{n}{n_m}\right)^2$

J_s =相對於電機軸的外部轉動慣量

J_s =Reduced mass moment of inertia on the motor shaft

J =相對於減速機輸出軸的外部轉動慣量

J =Mass moment of inertia referenced to the output speed of the gear unit

N =減速機的輸出轉速

N =Output speed of the gear unit

N_m =電機轉速

N_m =Motor speed

電機的轉動慣量是指電機轉動慣量，若配有制動器和高慣量飛輪（Z風扇）則要相應增加所配部件的轉動慣量。慣性加速系數大於10，要求傳動部件高平穩性及大的徑向負載時使用系數 f_s 就大於1.8，此類情況請向我公司諮詢。

"Mass moment of inertia on the motor" if it equips the brake and the flywheel fan(Z fan), the components' mass moment of inertia or large overhung loads. Please contact company in this case.

使用系數 f_s

確定最大持續運行扭矩 M_{max} 和由此推導出的使用系數 $f_s = M_{max}/M_n$ 是不標準的，並且不同的制造商之間有很大不同。瑞思科使用系數 $f_s=1$ 是，驅動設備在疲勞強度範圍內能提供相當高的工作安全性和可靠性（除斜齒輪蝸輪蝸杆減速機的蝸輪之外）。在一定條件下，使用系數不必和其它減速機制造商所給出的進行比較。若有疑問，請和我公司聯系索取針對特殊驅動設備詳細資料。

Service factor: f_b

The method for determining the maximum approved continuous torque M_{max} and then deriving the service factor $f_b = M_{max} / M_a$ is not defined in a standard and varies greatly from manufacturer to manufacturer. With their RISC service factor $f_b = 1$, drives afford an extremely high level of safety and reliability in the fatigue strength range (exception: wearing of the worm wheel in helical-Worm gear units). Under a certain circumstances, the service factor may not be comparable to the information given details for your specific drive. If there is any questions, please contact company to get the special drive equipments' document in detail.

舉例
Example

慣性加速系數2.5(II類載荷), 運行時間14小時/天 (按16小時/天查圖)和300次起停/小時, 使用系數在圖中為 $f_b = 1.51$, 根據選型表所選擇的減速電機 f_b 值要 ≥ 1.51 。
Mass acceleration factor 2.5(load classification II), 14 hours/day operating time(check the figure at 16h/d) and 300 cycles/hour produce a service factor $f_b = 1.51$ as shown in Fig.2. According to the selection table, the selected motor must have an f_b Value of 1.15 or greater.

斜齒輪蝸杆減速機
Helical-worm gear unit

在斜齒輪蝸杆減速機中, 除了已有圖3中的使用系數 f_b 外還有兩個使用系數 f_{b1} 、 f_{b2} 要考慮
· f_{b1} = 環境溫度使用系統
· f_{b2} = 負載持續系數
Two further service factors have to be taken into account with helical-worm gear units in addition to the selection factor f_b shown in Fig.2. These are:
- f_{b1} = Service factor from the ambient temperature
- f_{b2} = Service factor from the cyclic duration factor
附加的使用系數 f_{b1} 、 f_{b2} 可通過圖4確定, 確定 f_{b1} 時用和確定 f_b 同樣的方法考慮負載類型。
Additional service factors f_{b1} and f_{b2} can be determined by diagrams as shown in Fig.4. For the f_{b1} factor, we can define it just in the same way as f_b .

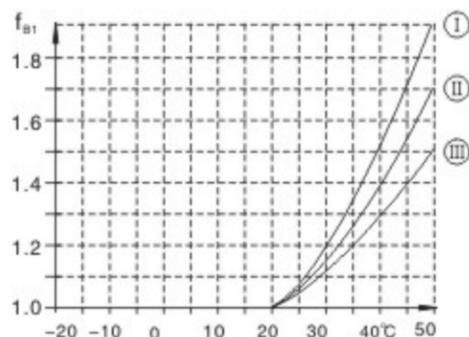
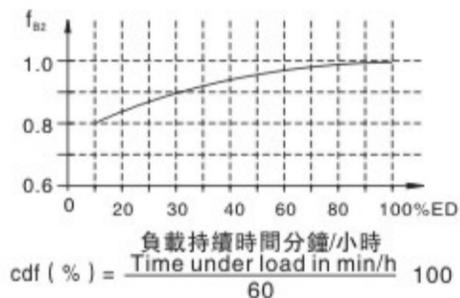


圖: 附加使用系數 f_{b1} 和 f_{b2}
Additional service factors f_{b1} and f_{b2}



確定 f_{b1} 時, 環境溫度低於 -20°C 請向我公司諮詢。
Please contact company case of temperatures below -20°C ($-f_{b1}$).
斜齒輪蝸杆減速機總的使用系數 f_{btotal} 按下式計算
The total service factor for helical-worm gear units is calculated as follows: $F_{btotal} = f_b \cdot f_{b1} \cdot f_{b2}$

舉例
Example

若前一個例子使用系統 $f_b = 1.51$ 的減速機是斜齒輪蝸杆減速機,
If the geared motor with the service factor $f_b = 1.51$ in the previous example is a helical-worm geared motor.
環境溫度 $40^\circ\text{C} \rightarrow f_{b1} = 1.38$ (負載類型 II)
Ambient temperature $t = 40^\circ\text{C} \rightarrow f_{b1} = 1.38$ (read off at load classification II)
負載工作時間 40 分鐘/小時 $cdf = 66.7\%$ $f_{b2} = 0.95$
Time under load = 40 min/h $\rightarrow cdf = 66.7\% \rightarrow f_{b2} = 0.95$
The total service factor is $F_{btotal} = 1.51 \cdot 1.38 \cdot 0.95 = 1.98$
根據選型表, 所選的斜齒輪蝸杆減速機的 f_b 則應 ≥ 1.98 。
According to the selection tables, the selected helical-worm geared motor must have a f_b value of 1.98 or greater.

4.5 徑向和軸向負載
4.5 Overhung and axial loads

徑向負載
Determining overhung load

確定徑向負載時, 要考慮安裝在軸端傳動部件的影響, 傳動部件系數 f_t 列于下表:
When determining the overhung load, the type of transmission element mounted on the shaft end must be considered. The transmission element factors f_t are listed as follows:

傳動部件 Transmission element	傳動部件系數 f_t Transmission element factor f_t	備注 Comments
齒輪 Gears	1.15	< 17齒 < 17teeth
鏈輪 Chain sprockets	1.40	< 13齒 < 13teeth
鏈輪 Chain sprockets	1.25	< 20齒 < 20teeth
窄V型帶 Narrow V-belt pulleys	1.75	預應力影響 Pre-tensioning influence
寬平皮帶 Flat belt pulleys	2.50	預應力影響 Pre-tensioning influence
齒型皮帶 Toothed belt pulleys	2.5	預應力影響 Pre-tensioning influence

作用在電機或減速機軸上的徑向力按下式計算:
The overhung load exerted on the motor or gear shaft is calculated as follows:

$$F_r = \frac{M_d \cdot 2000}{d_o} \cdot f_t$$

- F_r 徑向載荷(N) F_r Overhung load in N
- M_d 力矩(N·m) M_d Torque in N·m
- d_o 節圓直徑(mm) d_o Mean diameter of the mounted transmission element in mm
- f_t 傳動部件系數 f_t Transmission element factor

許用的徑向載荷
Permitted overhung load

根據耐磨軸承額定壽命 L_{H10} 來確定許用徑向載荷。
對於特殊的運行條件, 許用徑向載荷根據所要求的修正壽命 L_{na} 來確定。
對於地腳安裝實心軸輸出的減速機許用徑向載荷列于減速電機的選型表中。對於其他安裝形式可向我公司聯系。
According the rate service life L_{H10} of the anti-friction bearings to define the permitted overhung loads.
For the special operating conditions, the permitted overhung loads can be determined by the modified service life L_{na} .
The permitted overhung loads F_{ra} for the output shafts of foot-mounted gear units with a solid shaft are listed in the selection tables for geared motors. Please contact company in case of other types.

選型表中的徑向力數值按照力作用於軸伸的中點 (斜齒輪-傘齒輪減速機按照A端輸出軸考慮)。徑向力作用角度 α 和旋轉方向已經按最不利的條件給予考慮。
The data refer to the radial force acting midway on the shaft end (with right-angle gear units on the A-side output). Worst case conditions have been assumed for the force application angle α and the direction of rotation.

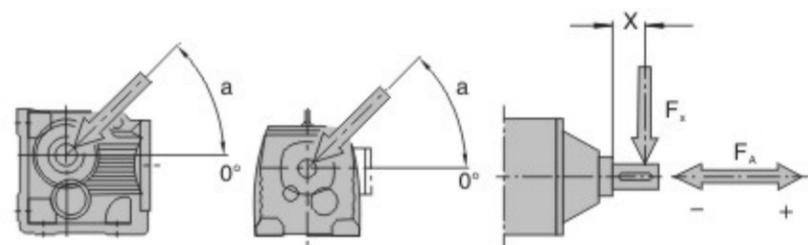
- 對於RCK和RCS系列減速機,M1安裝位置前面與安裝固定面連接時,許用徑向載荷祇是選型表中 F_{ra} 數值的50%。
- 對於RCK167和RCK187減速電機 在安裝位置M1-M4時;若安裝與其安裝位置示例有所區別情況下,其許用徑向載荷最大祇為選型表中 F_{ra} 的50%。
- 地腳/法蘭安裝斜齒輪減速電機(RCR..F):當通過法蘭安裝傳遞力矩時,許用徑向載荷最大為選型表中FRa的50%
- Only 50% of the F_{ra} Value specified in the selection tables permitted in mounting position M1 with wall attachment on the front face for RCK and RCS gear units.
- Helical-bevel geared motors RCK 167 and RCK 187 in mounting positions M1 to M4:If the mounting position is different the position we offered (M1-M4),the overhung load F_{ra} lasted in the selection tables.
- Foot and flange-mounted helical geared motors(RCR..F): A maximum of 50% of the overhung load F_{ra} specified in the selection tables in the case of torque transmission via the flange mounting.when the torque transmission via the flange mounting the overhung load F_{ra} will only be 50% compared with the F_{ra} lasted the selection tables.

更高的許用徑向載荷 Higher approved overhung loads

- 對於RCR、RCF和RCK系列減速電機,安裝重載軸承可提高許用徑向載荷。另外,精確考慮旋轉方向和力作用角 α ,也可提高許用徑向載荷,在此情況下,請和我公司聯繫。
- It possible to achieve a higher overhung load by exactly considering the force application angle α and the direction of rotation. In addition, higger output shaft loads are permitted if heavy duty bearings are installed, especially with RCR、RCF and RCK gear units. Please contact company in this case.

所受力的定義 Definition of force application

所受力根據下圖來定義
Force application is defined according to the following diagram:



F_x =在X點的許用徑向載荷 (N)
 F_A =許用軸向載荷 (N)
 F_x =Approved overhung load at point X[N]
 F_A =Approved axial load [N]

許用軸向載荷 Approved axial loads

如果没有徑向載荷,那麼軸向載荷 FA (+表示拉力,-表示壓緊力)依據表中徑向負荷的50%給定是允許的,這適用於:
If there is no overhung load,then an axial load FA(tension or compression)amount to 50% of the overhung load given in the selection tables is approved.This applies to the following geared motors:

- 斜齒輪減速機(RCR..137到167除外)
- 平行軸斜齒輪減速機與斜齒輪-傘齒輪(實心軸)減速機(RCF97...除外)
- 實心軸斜齒輪蝸輪蝸杆減速機
- Helical geared motors except for RCR...to RCR...167....
- Parallel shaft and helical-bevel geared motors with solid shaft except for RCF97...
- Helical-worm geared motors with solid shaft

對於其它類型的減速機請與公司諮詢,以防過大的軸向載荷或軸向及徑向的合成力。
Please contact company for all other types of gear units and in the event of significantly greater axial loads or combinations of overhung load and axial load.

偏離中心點的徑向力 Overhung load conversion for off-center force application

對於受力點不在軸端中點的允許徑向載荷要根據下面的公式計算。 F_{xl} 和 F_{xw} 中的較小值是在X點允許數值,所計算的數值應用於 M_{max}

The approved overhung loads given in the selection tables must be calculated using the following form-ulae in the event of force application not in the center of the shaft e-nd. The smaller of the two value F_{xl} (according to bearing service life)and F_{xw} (according to shaft strength) is the approved value for the overhung load at pointx. Note that the calculation apply to M_{max}

根據軸承壽命 F_{xl}
 F_{xl} acc.to bearing service life

$$F_{xl} = F_{ra} \cdot \frac{a}{b+x} \text{ [N]}$$

根據輸出軸強度 F_{xw}
 F_{xw} from the shaft strength

$$F_{xw} = \frac{c}{f+x} \text{ [N]}$$

- F_{ra} =對於底腳安裝齒輪箱的允許徑向載荷(選型表中所列值)單位: N
Approved overhung load(x=1/2)for foot-mounted gear units according to the selection tables in [N]
- X =從軸肩到受力點的距離
Distance from the shaft shoulder to the force application point in[mm]
- a,b,f =對於徑向負載轉化的齒輪箱常量
Gear unit constants for overhung load conversion[mm]
- c =對於徑向負載轉化的齒輪箱常量
Gear unit constant for overhung load conversion[Nmm]

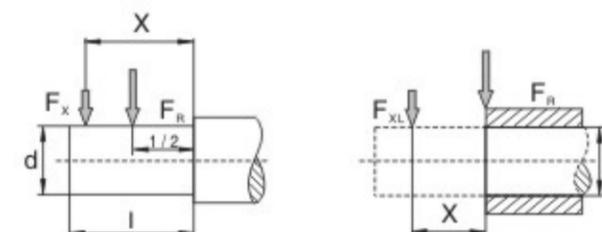


圖: 偏離中心點的徑向力 F_x
Fig: Overhung load F_x for off-center force application

據徑向負載/轉化所得的/減速機常量
Gear unit constants for overhung load conversion

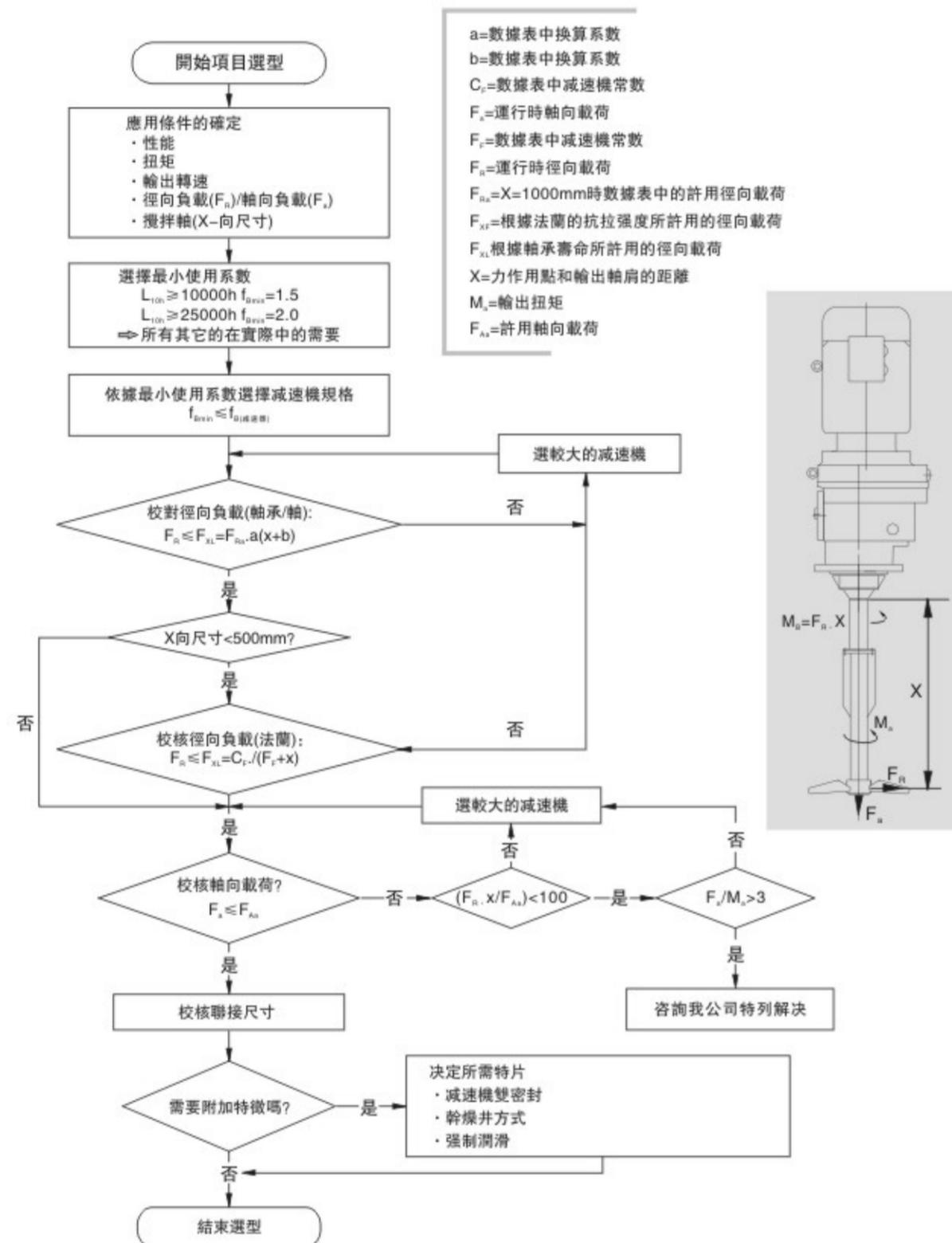
減速機常量 Gear unit type	a [mm]	b [mm]	c [Nmm]	f [mm]	d [mm]	l [mm]
RCR17	88.5	68.5	6.527×10^4	17	20	40
RCR27	106.5	81.5	1.56×10^5	11.8	25	50
RCR37	118	93	1.24×10^5	0	25	50
RCR47	137	107	2.44×10^5	15	20	60
RCR57	147.5	112.5	3.77×10^5	18	35	70
RCR67	168.5	133.5	2.51×10^5	0	35	70
RCR77	173.7	133.7	3.97×10^5	0	40	80
RCR87	216.7	166.7	8.47×10^5	0	50	100
RCR97	255.5	195.5	1.19×10^6	0	60	120
RCR107	285.5	215.5	2.06×10^6	0	70	140
RCR137	343.5	258.5	6.14×10^6	30	90	170
RCR147	402	297	8.65×10^6	33	110	210
RCR167	450	345	1.26×10^7	0	120	210
RCRX57	43.5	23.5	1.51×10^5	34.2	20	40
RCRX67	52.5	27.5	2.42×10^5	39.7	25	50
RCRX77	60.5	30.5	1.95×10^5	0	30	60
RCRX87	73.5	33.5	7.69×10^5	48.9	40	80
RCRX97	86.5	36.5	1.43×10^6	53.9	50	100
RCRX107	102.5	42.5	2.47×10^6	62.3	60	120
RCF37	123.5	98.5	1.07×10^5	0	25	50
RCF47	153.5	123.5	1.78×10^5	0	30	60
RCF57	170.7	135.7	5.49×10^5	32	35	70
RCF67	181.3	141.3	4.12×10^5	0	40	80
RCF77	215.8	165.8	7.87×10^5	0	50	100
RCF87	263	203	1.19×10^6	0	60	120
RCF97	350	280	2.09×10^6	0	70	140
RCF107	373.5	288.5	4.23×10^6	0	90	170
RCF127	442.5	337.5	9.49×10^6	0	110	210
RCF157	512	407	1.05×10^7	0	120	210
RCK37	123.5	98.5	1.41×10^5	0	25	50
RCK47	153.5	123.5	1.78×10^5	0	30	60
RCK57	168.7	134.7	6.8×10^5	31	35	70
RCK67	181.3	141.3	4.12×10^5	0	40	80
RCK77	215.8	165.8	7.69×10^5	0	50	100
RCK87	252	192	1.64×10^6	0	60	120
RCK97	319	249	2.8×10^6	0	70	140
RCK107	373.5	288.5	5.53×10^6	0	90	170
RCK127	443.5	338.5	8.31×10^6	0	110	210
RCK157	509	404	1.18×10^7	0	120	210
RCK167	621.5	496.5	1.88×10^7	0	160	250
RCK187	720.5	560.5	3.04×10^7	0	190	320
RCS37	118.5	98.5	6.0×10^5	0	20	40
RCS47	130	105	1.33×10^5	0	25	50
RCS57	150	120	2.14×10^5	0	30	60
RCS67	184	149	3.04×10^5	0	35	70
RCS77	224	179	5.26×10^5	0	45	90
RCS87	281.5	221.5	1.68×10^6	0	60	120
RCS97	326.3	256.3	2.54×10^6	0	70	140

對於沒有列出的類型的值需要給定。
Values for types not listed are available on request.

4.6 RCRM減速機

選型

當選用帶加長軸承箱的RCRM系列減速電機時，要考慮較高的徑向和軸向負載，請按照下列步驟計算選型

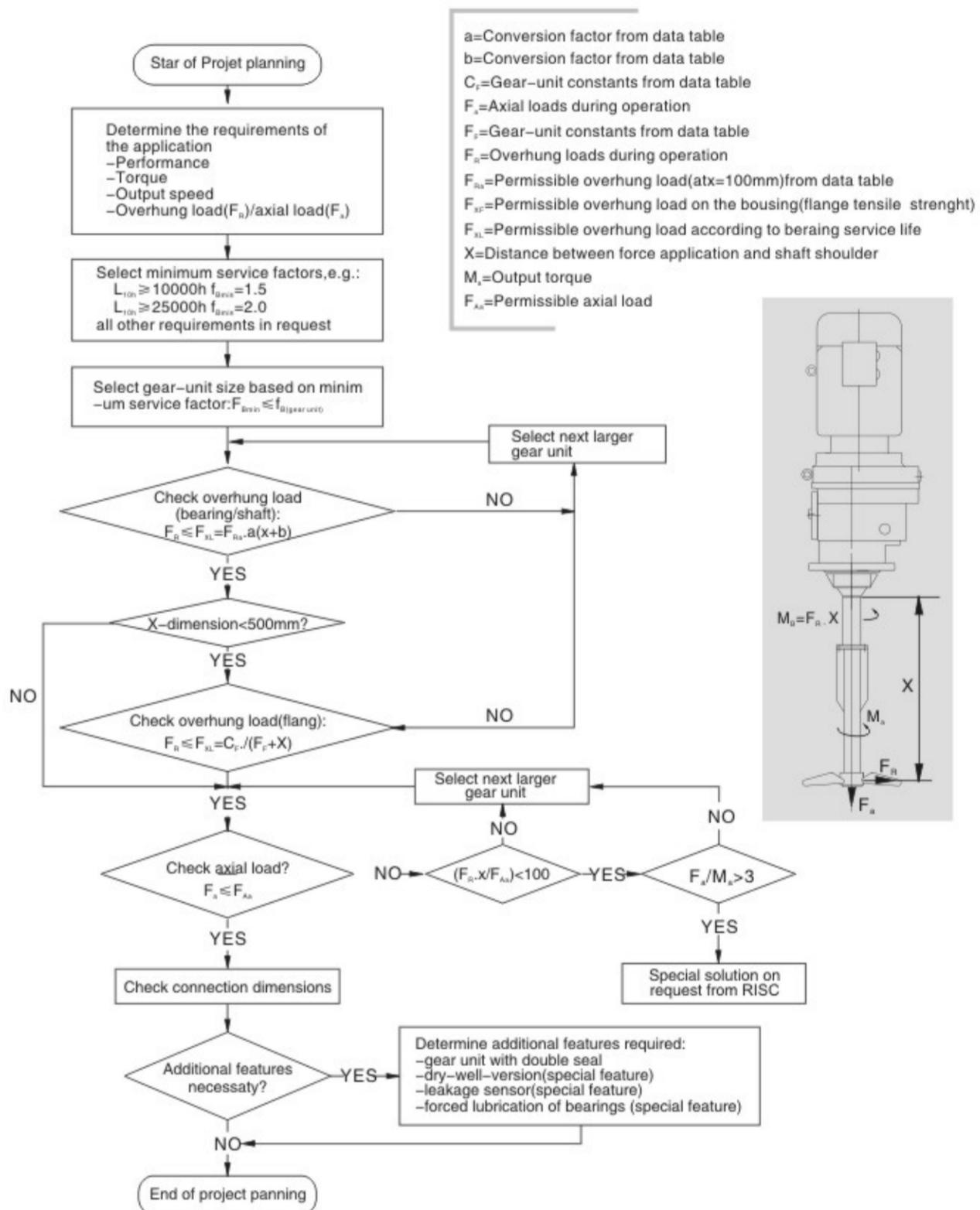


圖：RCRM選型流程圖

4.6 RCRM gear reducer

Project planning

You must take account of the higher overhung and axial loads when planning projects with RM helical geared motors with extended bearing housing. Please adhere to the following project planning procedure:



- a=Conversion factor from data table
- b=Conversion factor from data table
- Cr=Gear-unit constants from data table
- Fa=Axial loads during operation
- Fv=Gear-unit constants from data table
- Fo=Overhung loads during operation
- Foa=Permissible overhung load(atx=100mm)from data table
- Fov=Permissible overhung load on the housing(flange tensile strenght)
- Fvl=Permissible overhung load according to beraing service life
- X=Distance between force application and shaft shoulder
- Mv=Output torque
- Fva=Permissible axial load

允許徑向和軸向負載 Permitted overhung loads and axial forces

根據不同的使用係數 f_B 和正常軸承壽命 L_{10h} 所確定的許用徑向負載 F_{Rn} 和軸向負載 F_{An}
The permitted overhung loads F_{Rn} and axial loads F_{An} are specified for various service factors f_B and normal bearing service life L_{10h}

$f_{Bmin}=1.5$
 $L_{10h}=10\ 000h$

Na[rpm]		<16	16-25	26-40	41-60	61-100	101-250	161-250	251-400
RCRM57	F_{Rn} [N]	400	400	400	400	400	405	410	415
	F_{An} [N]	18800	1500	11500	9700	7100	5650	4450	3800
RCRM67	F_{Rn} [N]	575	575	575	580	575	585	590	600
	F_{An} [N]	19000	18900	15300	11900	9210	7470	5870	5050
RCRM77	F_{Rn} [N]	1200	1200	1200	1200	1200	1210	1210	1220
	F_{An} [N]	22000	22000	19400	15100	11400	9220	7200	6710
RCRM87	F_{Rn} [N]	1970	1970	1970	1970	1980	1990	2000	2010
	F_{An} [N]	30000	30000	23600	18000	14300	11000	8940	8030
RCRM97	F_{Rn} [N]	2980	2980	2980	2990	3010	3050	3060	3080
	F_{An} [N]	40000	36100	27300	20300	15900	12600	9640	7810
RCRM107	F_{Rn} [N]	4230	4230	4230	4230	4230	4230	3580	3830
	F_{An} [N]	48000	41000	30300	23000	18000	13100	9550	9030
RCRM137	F_{Rn} [N]	8710	8710	8710	8710	7220	5060	3980	6750
	F_{An} [N]	70000	70000	70000	57600	46900	44000	35600	32400
RCRM147	F_{Rn} [N]	11100	11100	11100	11100	11100	10600	8640	10800
	F_{An} [N]	70000	70000	69700	58400	45600	38000	32800	30800
RCRM167	F_{Rn} [N]	14600	14600	14600	14600	14600	14700	-	-
	F_{An} [N]	70000	70000	70000	60300	45300	36900	-	-

$f_{Bmin}=2.0$
 $L_{10h}=25\ 000h$

Na[rpm]		<16	16-25	26-40	41-60	61-100	101-250	161-250	251-400
RCRM57	F_{Rn} [N]	410	410	410	410	410	415	415	420
	F_{An} [N]	12100	9600	7350	6050	4300	3350	2600	2200
RCRM67	F_{Rn} [N]	590	590	590	595	590	595	600	605
	F_{An} [N]	15800	12000	9580	7330	5580	4460	3460	2930
RCRM77	F_{Rn} [N]	1210	1210	1210	1210	1210	1220	1220	1220
	F_{An} [N]	20000	15400	11900	9070	6670	5280	4010	3700
RCRM87	F_{Rn} [N]	2000	2000	2000	2000	2000	1720	1690	1710
	F_{An} [N]	24600	19200	14300	10600	8190	6100	5490	4860
RCRM97	F_{Rn} [N]	3040	3040	3040	3050	3070	3080	2540	2430
	F_{An} [N]	28400	22000	16200	11600	8850	6840	5830	4760
RCRM107	F_{Rn} [N]	4330	4330	4330	4330	4330	3350	2810	2990
	F_{An} [N]	32300	24800	17800	13000	9780	8170	5950	5620
RCRM137	F_{Rn} [N]	8850	8850	8850	8830	5660	4020	3200	5240
	F_{An} [N]	70000	59900	48000	37900	33800	31700	25600	23300
RCRM147	F_{Rn} [N]	11400	11400	11400	11400	11400	8320	6850	8440
	F_{An} [N]	70000	60600	45900	39900	33500	27900	24100	22600
RCRM167	F_{Rn} [N]	15100	15100	15100	15100	15100	13100	-	-
	F_{An} [N]	70000	63500	51600	37800	26800	23600	-	-

5. RCR 斜齒輪減速電機 RCR Helical Geared motors

下表是對於RCRM減速電機在力作用點 $X \neq 1000\text{mm}$ 時計算徑向載荷 F_{rx} 所需的換算系數和減速器常數
The following conversion factors and gear unit constants apply to calculating the permitted overhung load F_{rx} at point $X \neq 1000\text{mm}$ for RCRM gear motors.

換算系數和減速器常數
Conversion factors and gear unit constants

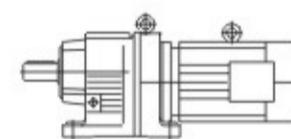
型號 Type	a	b	$c_r(f_b=1.5)$	$C_r(f_b=2.0)$	F_r
RCRM57	1047	47	1220600	1260400	277
RCRM67	1047	47	2047600	2100000	297.5
RCRM77	1050	50	2512800	2574700	340.5
RCRM87	1056.5	56.5	4917800	5029000	414
RCRM97	1061	61	10911600	11124100	481
RCRM107	1069	69	15367000	15652000	554.5
RCRM137	1088	88	25291700	25993600	650
RCRM147	1091	91	30038700	31173900	756
RCRM167	1089.5	89.5	42096100	43654300	869

RCRM減速機的附加重量
Additional weights of RCRM gear units

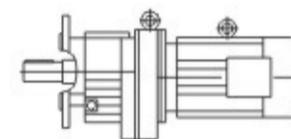
型號 Type	在帶有最小法蘭尺寸RF減速機重量基礎上的附加重量 Additional weight in addition to RF, related to the smallest RF flange $\Delta m[\text{kg}]$
RCRM57	12.0
RCRM67	15.8
RCRM77	25.0
RCRM87	29.7
RCRM97	51.3
RCRM107	88.0
RCRM137	111.1
RCRM147	167.4
RCRM167	195.4

5.1 設計方案 5.1 Versions of geared motors

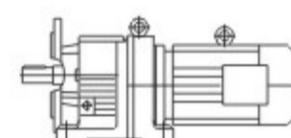
斜齒輪減速電機有以下設計方案：
The following types of helical-bevel motor can be supplied:



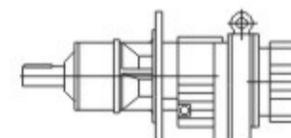
RCR..D..
底腳安裝斜齒輪減速電機
Foot-mounted helical geared motor



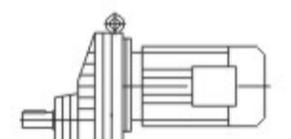
RCRF..D..
法蘭安裝斜齒輪減速電機
Flange-mounted helical geared motor



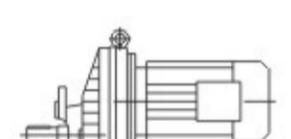
RCR..F D..
底腳法蘭安裝斜齒輪減速電機(僅限於RCR17-RCR87)
Foot and flange-mounted helical geared motor



RCRM..D..
法蘭安裝帶長軸承箱的斜齒輪減速電機
Flange-mounted helical geared motor with extended bearing housing



RCRX..D..
底腳安裝單級斜齒輪減速電機
Single-stage foot-mounted helical geared motor



RCRXF..D..
法蘭安裝單級斜齒輪減速電機
Single-stage flange-mounted helical geared motor

5.3 速比與最大扭矩
5.3 Ratio and max torque

RCRX57-107 表中 n_a 是按 $n_e=1400$ 1/min計算

RCRX57 70Nm					RCRX67 135Nm					RCRX77 215Nm																																																																																																															
i	n_a [1/min]	M_{amax} [Nm]	F_{ra} [N]	AD	i	n_a [1/min]	M_{amax} [Nm]	F_{ra} [N]	AD	i	n_a [1/min]	M_{amax} [Nm]	F_{ra} [N]	AD																																																																																																											
5.50	255	39	3080	AD ₂	6.07	231	43	4010	AD ₂	8.00	175	57	6330	AD ₂																																																																																																											
5.07	276	36	3030		4.35	322	68	2640		3.79	369	69	2480		3.55	394	65	2420	3.14	446	67	2320	2.91	481	69	2170	2.64	530	69	1810	2.37	591	69	1500	AD ₃	3.20	438	100	2800	AD ₃	4.73	296	123	4900	AD ₃	2.04	686	69	1070	1.92	729	69	890	1.65	848	69	430	1.48	946	68	112	1.30	1075	63	132	2.04	688	134	230	1.86	753	126	225	1.61	870	114	245	1.40	1000	104	205	3.25	431	182	3200	AD ₄	4.04	347	143	4500	AD ₄	3.08	455	193	2560	2.70	519	215	1110	2.43	576	215	510	2.13	657	200	435	1.88	745	187	335	1.67	838	173	315	1.42	986	155	315		
4.35	322	68	2640		3.79	369	69	2480		3.55	394	65	2420		3.14	446	67	2320	2.91	481	69	2170	2.64	530	69	1810	2.37	591	69	1500	AD ₃	3.20	438	100		2800	AD ₃	4.73	296		123	4900	AD ₃	2.04		686	69	1070	1.92	729	69	890	1.65	848	69	430	1.48	946	68	112	1.30	1075	63	132	2.04	688	134	230	1.86	753	126	225	1.61	870	114	245	1.40	1000	104	205	3.25	431	182	3200	AD ₄		4.04	347	143	4500		AD ₄	3.08	455	193	2560	2.70	519	215	1110	2.43	576	215	510	2.13	657	200	435	1.88	745	187	335	1.67	838	173	315	1.42	986	155	315	
3.79	369	69	2480		3.55	394	65	2420		3.14	446	67	2320		2.91	481	69	2170	2.64	530	69	1810	2.37	591	69	1500	AD ₃	3.20	438	100		2800	AD ₃	4.73		296		123	4900		AD ₃	2.04		686		69	1070	1.92	729	69	890	1.65	848	69	430	1.48	946	68	112	1.30	1075	63	132	2.04	688	134	230	1.86	753	126	225	1.61	870	114	245	1.40	1000	104	205	3.25	431	182	3200	AD ₄			4.04	347	143	4500			AD ₄	3.08	455	193	2560	2.70	519	215	1110	2.43	576	215	510	2.13	657	200	435	1.88	745	187	335	1.67	838	173	315	1.42	986	155	315
3.55	394	65	2420		3.14	446	67	2320		2.91	481	69	2170		2.64	530	69	1810	2.37	591	69	1500	AD ₃	3.20	438	100		2800	AD ₃	4.73		296		123		4900		AD ₃	2.04			686		69		1070	1.92	729	69	890	1.65	848	69	430	1.48	946	68	112	1.30	1075	63	132	2.04	688	134	230	1.86	753	126	225	1.61	870	114	245	1.40	1000	104	205	3.25	431	182	3200	AD ₄				4.04	347	143	4500				AD ₄	3.08	455	193	2560	2.70	519	215	1110	2.43	576	215	510	2.13	657	200	435	1.88	745	187	335	1.67	838	173	315	1.42	986	155
3.14	446	67	2320		2.91	481	69	2170	2.64	530	69	1810	2.37		591	69	1500	AD ₃	3.20	438	100	2800		AD ₃	4.73	296		123		4900		AD ₃		2.04		686			69			1070		1.92	729	69	890	1.65	848	69	430	1.48	946	68	112	1.30	1075	63	132	2.04	688	134	230	1.86	753	126	225	1.61	870	114	245	1.40	1000	104	205	3.25	431	182	3200	AD ₄	4.04	347					143	4500	AD ₄	3.08	455				193	2560	2.70	519	215	1110	2.43	576	215	510	2.13	657	200	435	1.88	745	187	335	1.67	838	173	315	1.42	986	155	315	
2.91	481	69	2170		2.64	530	69	1810	2.37	591	69	1500	AD ₃	3.20	438	100	2800		AD ₃	4.73	296	123			4900	AD ₃		2.04		686				69		1070			1.92			729	69	890	1.65	848	69	430	1.48	946	68	112	1.30	1075	63	132	2.04	688	134	230	1.86	753	126	225	1.61	870	114	245	1.40	1000	104	205	3.25	431	182	3200	AD ₄	4.04	347		143	4500					AD ₄	3.08		455	193	2560			2.70	519	215	1110	2.43	576	215	510	2.13	657	200	435	1.88	745	187	335	1.67	838	173	315	1.42	986	155	315			
2.64	530	69	1810	2.37	591	69	1500	AD ₃	3.20	438	100	2800		AD ₃	4.73	296	123			4900	AD ₃	2.04			686			69		1070				1.92		729			69		890	1.65	848	69	430	1.48	946	68	112	1.30	1075	63	132	2.04	688	134	230	1.86	753	126	225	1.61	870	114	245	1.40	1000	104	205	3.25	431	182	3200	AD ₄	4.04	347		143	4500		AD ₄	3.08						455		193	2560	2.70	519		215	1110	2.43	576	215	510	2.13	657	200	435	1.88	745	187	335	1.67	838	173	315	1.42	986	155	315					
2.37	591	69	1500	AD ₃	3.20	438	100		2800	AD ₃	4.73	296			123	4900	AD ₃																																																																																																								
2.04	686	69	1070		1.92	729	69		890		1.65	848			69	430				1.48		946			68			112		1.30		1075		63	132	2.04		688	134	230	1.86	753	126	225	1.61	870	114	245	1.40	1000	104	205	3.25	431	182	3200	AD ₄	4.04	347	143	4500	AD ₄	3.08	455	193	2560	2.70	519	215	1110	2.43	576	215		510	2.13		657	200			435				1.88		745	187	335	1.67	838	173	315	1.42	986	155	315																							
1.92	729	69	890		1.65	848	69		430		1.48	946			68	112				1.30		1075			63	132		2.04		688	134	230		1.86	753	126	225	1.61	870	114	245	1.40	1000	104	205	3.25	431	182	3200	AD ₄	4.04	347	143	4500	AD ₄	3.08		455	193	2560	2.70		519	215	1110	2.43	576	215	510	2.13	657	200	435		1.88	745		187	335			1.67			838	173	315	1.42	986	155	315																														
1.65	848	69	430		1.48	946	68		112		1.30	1075			63	132				2.04	688	134			230	1.86	753	126		225	1.61	870	114	245	1.40	1000	104	205	3.25	431	182	3200	AD ₄	4.04	347	143	4500	AD ₄	3.08		455	193	2560	2.70		519		215	1110	2.43	576		215	510	2.13	657	200	435	1.88	745	187	335	1.67		838	173		315	1.42		986	155		315																																					
1.48	946	68	112		1.30	1075	63		132		2.04	688			134	230	1.86			753	126	225	1.61		870	114	245	1.40	1000	104	205	3.25	431	182	3200	AD ₄	4.04	347	143	4500	AD ₄	3.08		455	193	2560	2.70		519		215	1110	2.43	576		215		510	2.13	657	200		435	1.88	745	187	335	1.67	838	173	315	1.42	986		155	315																																													
1.30	1075	63	132		2.04	688	134		230		1.86	753			126	225	1.61	870		114	245	1.40	1000	104	205	3.25	431	182	3200	AD ₄	4.04	347	143	4500	AD ₄		3.08	455	193	2560		2.70		519	215	1110	2.43		576		215	510	2.13	657		200		435	1.88	745	187	335	1.67	838	173	315	1.42	986	155	315																																																			
2.04	688	134	230		1.86	753	126		225		1.61	870	114		245	1.40	1000	104	205	3.25	431	182	3200	AD ₄	4.04	347	143	4500	AD ₄		3.08	455	193	2560			2.70	519	215	1110		2.43		576	215	510	2.13		657		200	435	1.88	745	187	335		1.67	838	173	315	1.42	986	155	315																																																								
1.86	753	126	225		1.61	870	114	245	1.40		1000	104	205	3.25	431	182	3200	AD ₄	4.04	347	143	4500	AD ₄		3.08	455	193	2560			2.70	519	215	1110			2.43	576	215	510		2.13		657	200	435	1.88	745	187		335	1.67	838	173	315	1.42		986	155	315																																																													
1.61	870	114	245	1.40	1000	104	205	3.25	431	182	3200	AD ₄	4.04	347	143	4500	AD ₄		3.08	455	193	2560			2.70	519	215	1110			2.43	576	215	510			2.13	657	200	435	1.88	745		187	335	1.67	838	173	315		1.42	986	155	315																																																																			
1.40	1000	104	205	3.25	431	182	3200	AD ₄	4.04	347	143		4500	AD ₄	3.08	455			193	2560	2.70	519			215	1110	2.43	576			215	510	2.13	657	200		435	1.88	745	187	335	1.67		838	173	315	1.42	986	155		315																																																																						
3.25	431	182	3200	AD ₄	4.04	347	143		4500	AD ₄																																																																																																															
3.08	455	193	2560		2.70	519	215		1110		2.43		576		215	510			2.13	657	200	435	1.88		745	187	335	1.67	838		173	315	1.42	986	155		315																																																																																				
2.70	519	215	1110		2.43	576	215		510		2.13		657		200	435	1.88		745	187	335	1.67	838		173	315	1.42	986	155		315																																																																																										
2.43	576	215	510		2.13	657	200		435		1.88		745	187	335	1.67	838		173	315	1.42	986	155		315																																																																																																
2.13	657	200	435		1.88	745	187		335	1.67	838		173	315	1.42	986	155		315																																																																																																						
1.88	745	187	335		1.67	838	173		315	1.42	986		155	315																																																																																																											
1.67	838	173	315		1.42	986	155		315																																																																																																																
1.42	986	155	315																																																																																																																						

RCRX87 400Nm					RCRX97 600Nm					RCRX107 830Nm																																																																																																														
i	n_a [1/min]	M_{amax} [Nm]	F_{ra} [N]	AD	i	n_a [1/min]	M_{amax} [Nm]	F_{ra} [N]	AD	i	n_a [1/min]	M_{amax} [Nm]	F_{ra} [N]	AD																																																																																																										
8.65	162	139	7890	AD ₂	8.23	170	225	9560	AD ₃	6.63	211	460	9700	AD ₄																																																																																																										
7.63	183	149	7490		7.20	194	140	7380		6.45	217	192	6850		AD ₃	5.79	242	420	7630	AD ₄	5.19	270	695	7850	AD ₃	5.56	252	225	6320	5.07	276	250	5980	4.50	311	290	5500	AD ₄	4.91	285	395	7220	3.78	370	305	5030	3.48	402	405	2730	AD ₅	4.52	310	595	6180	AD ₅	3.81	367	830	5550	3.09	453	405	1950	2.76	507	405	1200	2.48	565	405	470	2.14	651	385	42	1.93	725	355	185	1.60	875	315	74	1.39	1005	290	74	3.64	385	595	4530	3.30	434	595	3730	2.92	479	595	2810	2.64	530	595	1980	2.24	625	595	495	1.96	714	570	19	1.64	854	505	51	1.42	986	455	132
7.20	194	140	7380		6.45	217	192	6850		AD ₃	5.79	242	420	7630		AD ₄	5.19	270	695		7850	AD ₃	5.56	252		225	6320	5.07	276	250	5980	4.50	311	290	5500	AD ₄	4.91		285	395	7220	3.78	370	305	5030	3.48	402	405	2730	AD ₅		4.52	310	595	6180		AD ₅	3.81	367	830	5550	3.09	453	405	1950	2.76	507	405	1200	2.48	565	405	470	2.14	651	385	42	1.93	725	355	185	1.60	875	315	74	1.39	1005	290	74	3.64	385	595	4530	3.30	434	595	3730	2.92	479	595	2810	2.64	530	595	1980	2.24	625	595	495	1.96	714	570	19	1.64	854	505	51	1.42	986	455
6.45	217	192	6850	AD ₃	5.79	242	420	7630	AD ₄		5.19	270	695	7850			AD ₃																																																																																																							
5.56	252	225	6320		5.07	276	250	5980			4.50	311	290	5500		AD ₄		4.91	285	395	7220		3.78	370		305	5030	3.48	402	405	2730	AD ₅	4.52	310	595	6180	AD ₅	3.81	367	830	5550	3.09	453	405	1950	2.76	507	405	1200			2.48	565	405	470			2.14	651	385	42	1.93	725	355	185	1.60	875	315	74	1.39	1005	290	74	3.64	385	595	4530	3.30	434	595	3730	2.92	479	595	2810	2.64	530	595	1980	2.24	625	595	495	1.96	714	570	19	1.64	854	505	51	1.42	986	455	132	AD ₅														
5.07	276	250	5980		4.50	311	290	5500	AD ₄		4.91	285	395	7220				3.78	370	305	5030		3.48	402		405	2730	AD ₅	4.52	310	595		6180	AD ₅	3.81	367		830	5550	3.09	453	405	1950	2.76	507	405	1200	2.48	565			405	470	2.14	651			385	42	1.93	725	355	185	1.60	875	315	74	1.39	1005	290	74	3.64	385	595	4530	3.30	434	595	3730	2.92	479	595	2810	2.64	530	595	1980	2.24	625	595	495	1.96	714	570	19	1.64	854	505	51	1.42	986	455	132	AD ₅																
4.50	311	290	5500		AD ₄	4.91	285	395			7220	3.78	370	305	5030	3.48		402	405	2730	AD ₅		4.52	310	595	6180	AD ₅		3.81	367	830		5550		3.09	453		405	1950	2.76	507	405	1200	2.48	565	405	470	2.14	651			385	42	1.93	725			355	185	1.60	875	315	74	1.39	1005	290	74	3.64	385	595	4530	3.30	434	595	3730	2.92	479	595	2810	2.64	530	595	1980	2.24	625	595	495	1.96	714	570	19	1.64	854	505	51	1.42	986	455	132	AD ₅																				
3.78	370	305	5030			3.48	402	405	2730	AD ₅	4.52	310	595	6180	AD ₅	3.81		367	830	5550		3.09	453	405	1950	2.76			507	405	1200		2.48		565	405		470	2.14	651	385	42	1.93	725	355	185	1.60	875	315			74	1.39	1005	290			74	3.64	385	595	4530	3.30	434	595	3730	2.92	479	595	2810	2.64	530	595	1980	2.24	625	595	495	1.96	714	570	19	1.64	854	505	51	1.42	986	455	132	AD ₅																													
3.48	402	405	2730	AD ₅	4.52	310	595	6180	AD ₅		3.81	367	830	5550																																																																																																										
3.09	453	405	1950		2.76	507	405	1200			2.48	565	405	470		2.14	651	385	42	1.93		725	355	185	1.60	875			315	74	1.39		1005		290	74		3.64	385	595	4530	3.30	434	595	3730	2.92	479	595	2810			2.64	530	595	1980			2.24	625	595	495	1.96	714	570	19	1.64	854	505	51	1.42	986	455	132	AD ₅																																														
2.76	507	405	1200		2.48	565	405	470			2.14	651	385	42		1.93	725	355	185	1.60		875	315	74	1.39	1005			290	74	3.64		385		595	4530		3.30	434	595	3730	2.92	479	595	2810	2.64	530	595	1980			2.24	625	595	495			1.96	714	570	19	1.64	854	505	51	1.42	986	455	132	AD ₅																																																		
2.48	565	405	470		2.14	651	385	42			1.93	725	355	185		1.60	875	315	74	1.39		1005	290	74	3.64	385			595	4530	3.30		434		595	3730		2.92	479	595	2810	2.64	530	595	1980	2.24	625	595	495		1.96	714	570	19	1.64	854		505	51	1.42	986	455	132	AD ₅																																																								
2.14	651	385	42		1.93	725	355	185			1.60	875	315	74		1.39	1005	290	74	3.64		385	595	4530	3.30	434			595	3730	2.92		479		595	2810		2.64	530	595	1980	2.24	625	595	495	1.96	714	570	19	1.64	854	505	51	1.42	986	455	132	AD ₅																																																														
1.93	725	355	185		1.60	875	315	74			1.39	1005	290	74		3.64	385	595	4530	3.30		434	595	3730	2.92	479			595	2810	2.64		530		595	1980		2.24	625	595	495	1.96	714	570	19	1.64	854	505	51	1.42	986	455	132	AD ₅																																																																		
1.60	875	315	74		1.39	1005	290	74			3.64	385	595	4530		3.30	434	595	3730	2.92		479	595	2810	2.64	530			595	1980	2.24	625	595		495	1.96	714	570	19	1.64	854	505	51	1.42	986	455	132	AD ₅																																																																								
1.39	1005	290	74		3.64	385	595	4530			3.30	434	595	3730		2.92	479	595	2810	2.64		530	595	1980	2.24	625		595	495	1.96	714	570	19	1.64	854	505	51	1.42	986	455	132	AD ₅																																																																														
3.64	385	595	4530		3.30	434	595	3730			2.92	479	595	2810		2.64	530	595	1980	2.24	625	595	495	1.96	714	570	19	1.64	854	505	51	1.42	986	455	132	AD ₅																																																																																				
3.30	434	595	3730		2.92	479	595	2810		2.64	530	595	1980	2.24	625	595	495	1.96	714	570	19	1.64	854	505	51	1.42	986	455	132	AD ₅																																																																																										
2.92	479	595	2810	2.64	530	595	1980	2.24	625	595	495	1.96	714	570	19	1.64	854	505	51	1.42	986	455	132	AD ₅																																																																																																
2.64	530	595	1980	2.24	625	595	495	1.96	714	570	19	1.64	854	505	51	1.42	986	455	132	AD ₅																																																																																																				
2.24	625	595	495	1.96	714	570	19	1.64	854	505	51	1.42	986	455	132	AD ₅																																																																																																								
1.96	714	570	19	1.64	854	505	51	1.42	986	455	132	AD ₅																																																																																																												
1.64	854	505	51	1.42	986	455	132	AD ₅																																																																																																																
1.42	986	455	132	AD ₅																																																																																																																				

RCR17-37 表中 n_a 是按 $n_e=1400$ 1/min計算

RCR17 85Nm					RCR27 130Nm					RCR37 200Nm																																																																																																																																																																																																																			
i	n_a [1/min]	M_{amax} [Nm]	F_{ra} [N]	AD	i	n_a [1/min]	M_{amax} [Nm]	F_{ra} [N]	AD	i	n_a [1/min]	M_{amax} [Nm]	F_{ra} [N]	AD																																																																																																																																																																																																															
3-stage					3-stage					3-stage																																																																																																																																																																																																																			
81.64	17	85	1890	AD ₁	135.09	10	130	4230	AD ₁	134.82	10	200	4950	AD ₁																																																																																																																																																																																																															
70.39	20	85	1890		65.61	21	85	1890		57.35	24	85	1890		53.76	26	85	1890	47.44	30	85	1890	44.18	32	85	1890	38.61	36	85	1890	36.20	39	85	1890	31.94	44	85	1870	28.32	49	85	1780	24.07	58	85	1650	2-stage					2-stage					2-stage					25.23	55	85	1690	AD ₁	74.11	19	130	4230	AD ₁	48.08	29	200	4950	AD ₂	23.15	60	85	1620	19.70	71	85	1500	16.99	82	85	1400	15.84	88	85	1350	13.84	101	85	1270	12.98	108	85	1230	11.45	122	81	1180	10.15	138	77	1140	8.63	162	72	1090	7.55	185	56	1040	7.04	199	55	1010	6.15	228	54	950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200	3690	AD ₂	26.09	54	130	2840	22.32	63	130	2660	19.35	72	130	2510	18.08	77	130	2440	15.63	90	130	2290	13.28	105	130	240	11.86	118	129	1990	10.13	138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900			
65.61	21	85	1890		57.35	24	85	1890		53.76	26	85	1890		47.44	30	85	1890	44.18	32	85	1890	38.61	36	85	1890	36.20	39	85	1890	31.94	44	85	1870	28.32	49	85	1780	24.07	58	85	1650	2-stage					2-stage					2-stage					25.23	55	85	1690	AD ₁	74.11	19	130		4230	AD ₁	48.08	29		200	4950	AD ₂	23.15		60	85	1620	19.70	71	85	1500	16.99	82	85	1400	15.84	88	85	1350	13.84	101	85	1270	12.98	108	85	1230	11.45	122	81	1180	10.15	138	77	1140	8.63	162	72	1090	7.55	185	56	1040	7.04	199	55	1010	6.15	228	54	950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂		28.32	49	200	3690		AD ₂	26.09	54	130	2840	22.32	63	130	2660	19.35	72	130	2510	18.08	77	130	2440	15.63	90	130	2290	13.28	105	130	240	11.86	118	129	1990	10.13	138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900		
57.35	24	85	1890		53.76	26	85	1890		47.44	30	85	1890		44.18	32	85	1890	38.61	36	85	1890	36.20	39	85	1890	31.94	44	85	1870	28.32	49	85	1780	24.07	58	85	1650	2-stage					2-stage					2-stage					25.23	55	85	1690	AD ₁	74.11	19	130		4230	AD ₁	48.08		29		200	4950		AD ₂	23.15		60		85	1620	19.70	71	85	1500	16.99	82	85	1400	15.84	88	85	1350	13.84	101	85	1270	12.98	108	85	1230	11.45	122	81	1180	10.15	138	77	1140	8.63	162	72	1090	7.55	185	56	1040	7.04	199	55	1010	6.15	228	54	950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂			28.32	49	200	3690			AD ₂	26.09	54	130	2840	22.32	63	130	2660	19.35	72	130	2510	18.08	77	130	2440	15.63	90	130	2290	13.28	105	130	240	11.86	118	129	1990	10.13	138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900	
53.76	26	85	1890		47.44	30	85	1890		44.18	32	85	1890		38.61	36	85	1890	36.20	39	85	1890	31.94	44	85	1870	28.32	49	85	1780	24.07	58	85	1650	2-stage					2-stage					2-stage					25.23	55	85	1690	AD ₁	74.11	19	130		4230	AD ₁	48.08		29		200		4950		AD ₂	23.15			60		85		1620	19.70	71	85	1500	16.99	82	85	1400	15.84	88	85	1350	13.84	101	85	1270	12.98	108	85	1230	11.45	122	81	1180	10.15	138	77	1140	8.63	162	72	1090	7.55	185	56	1040	7.04	199	55	1010	6.15	228	54	950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂				28.32	49	200	3690				AD ₂	26.09	54	130	2840	22.32	63	130	2660	19.35	72	130	2510	18.08	77	130	2440	15.63	90	130	2290	13.28	105	130	240	11.86	118	129	1990	10.13	138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900
47.44	30	85	1890		44.18	32	85	1890		38.61	36	85	1890		36.20	39	85	1890	31.94	44	85	1870	28.32	49	85	1780	24.07	58	85	1650	2-stage					2-stage					2-stage					25.23	55	85	1690	AD ₁	74.11	19	130		4230	AD ₁	48.08		29		200		4950		AD ₂		23.15			60			85		1620		19.70	71	85	1500	16.99	82	85	1400	15.84	88	85	1350	13.84	101	85	1270	12.98	108	85	1230	11.45	122	81	1180	10.15	138	77	1140	8.63	162	72	1090	7.55	185	56	1040	7.04	199	55	1010	6.15	228	54	950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂					28.32	49	200	3690					AD ₂	26.09	54	130	2840	22.32	63	130	2660	19.35	72	130	2510	18.08	77	130	2440	15.63	90	130	2290	13.28	105	130	240	11.86	118	129	1990	10.13	138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79
44.18	32	85	1890		38.61	36	85	1890	36.20	39	85	1890	31.94	44	85	1870	28.32	49	85	1780	24.07	58	85	1650	2-stage					2-stage					2-stage					25.23	55	85	1690	AD ₁	74.11	19	130	4230	AD ₁		48.08	29	200		4950		AD ₂		23.15		60		85				1620			19.70			71		85		1500	16.99	82	85	1400	15.84	88	85	1350	13.84	101	85	1270	12.98	108	85	1230	11.45	122	81	1180	10.15	138	77	1140	8.63	162	72	1090	7.55	185	56	1040	7.04	199	55	1010	6.15	228	54	950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49						200	3690	AD ₂	26.09						54	130	2840	22.32	63	130	2660	19.35	72	130	2510	18.08	77	130	2440	15.63	90	130	2290	13.28	105	130	240	11.86	118	129	1990	10.13	138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900
38.61	36	85	1890		36.20	39	85	1890	31.94	44	85	1870	28.32	49	85	1780	24.07	58	85	1650	2-stage					2-stage					2-stage					25.23	55	85	1690	AD ₁	74.11	19	130		4230	AD ₁	48.08	29			200	4950	AD ₂		23.15				60		85		1620				19.70			71	85		1500		16.99	82	85	1400	15.84	88	85	1350	13.84	101	85	1270	12.98	108	85	1230	11.45	122	81	1180	10.15	138	77	1140	8.63	162	72	1090	7.55	185	56	1040	7.04	199	55	1010	6.15	228	54	950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49		200	3690						AD ₂	26.09		54						130	2840	22.32	63	130	2660	19.35	72	130	2510	18.08	77	130	2440	15.63	90	130	2290	13.28	105	130	240	11.86	118	129	1990	10.13	138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900	
36.20	39	85	1890		31.94	44	85	1870	28.32	49	85	1780	24.07	58	85	1650	2-stage					2-stage					2-stage					25.23	55	85	1690	AD ₁	74.11	19	130		4230	AD ₁	48.08		29		200	4950			AD ₂	23.15			60				85		1620		19.70				71	85		1500	16.99		82	85	1400	15.84	88	85	1350	13.84	101	85	1270	12.98	108	85	1230	11.45	122	81	1180	10.15	138	77	1140	8.63	162	72	1090	7.55	185	56	1040	7.04	199	55	1010	6.15	228	54	950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49		200	3690		AD ₂	26.09							54		130						2840	22.32	63	130	2660	19.35	72	130	2510	18.08	77	130	2440	15.63	90	130	2290	13.28	105	130	240	11.86	118	129	1990	10.13	138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900		
31.94	44	85	1870		28.32	49	85	1780	24.07	58	85	1650	2-stage					2-stage					2-stage					25.23	55	85	1690	AD ₁	74.11	19	130		4230	AD ₁	48.08		29		200		4950		AD ₂	23.15				60			85				1620		19.70		71	85			1500	16.99		82	85	1400	15.84	88	85	1350	13.84	101	85	1270	12.98	108	85	1230	11.45	122	81	1180	10.15	138	77	1140	8.63	162	72	1090	7.55	185	56	1040	7.04	199	55	1010	6.15	228	54	950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49		200	3690		AD ₂	26.09			54							130		2840						22.32	63	130	2660	19.35	72	130	2510	18.08	77	130	2440	15.63	90	130	2290	13.28	105	130	240	11.86	118	129	1990	10.13	138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900			
28.32	49	85	1780		24.07	58	85	1650	2-stage					2-stage					2-stage					25.23	55	85	1690	AD ₁	74.11	19	130		4230	AD ₁	48.08		29		200		4950		AD ₂		23.15			60				85			1620				19.70	71	85		1500	16.99			82	85	1400	15.84	88	85	1350	13.84	101	85	1270	12.98	108	85	1230	11.45	122	81	1180	10.15	138	77	1140	8.63	162	72	1090	7.55	185	56	1040	7.04	199	55	1010	6.15	228	54	950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49		200	3690		AD ₂	26.09			54			130							2840		22.32						63	130	2660	19.35	72	130	2510	18.08	77	130	2440	15.63	90	130	2290	13.28	105	130	240	11.86	118	129	1990	10.13	138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900				
24.07	58	85	1650		2-stage					2-stage					2-stage					25.23	55	85	1690	AD ₁	74.11	19	130		4230	AD ₁	48.08		29		200		4950		AD ₂		23.15				60			85				1620			19.70	71			85	1500	16.99		82	85	1400		15.84	88	85	1350	13.84	101	85	1270	12.98	108	85	1230	11.45	122	81	1180	10.15	138	77	1140	8.63	162	72	1090	7.55	185	56	1040	7.04	199	55	1010	6.15	228	54	950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49		200	3690		AD ₂	26.09			54			130			2840							22.32		63						130	2660	19.35	72	130	2510	18.08	77	130	2440	15.63	90	130	2290	13.28	105	130	240	11.86	118	129	1990	10.13	138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900					
2-stage					2-stage					2-stage																																																																																																																																																																																																																			
25.23	55	85	1690	AD ₁	74.11	19	130	4230	AD ₁	48.08	29	200	4950	AD ₂																																																																																																																																																																																																															
23.15	60	85	1620		19.70	71	85	1500		16.99	82	85	1400		15.84	88	85	1350	13.84	101	85	1270	12.98		108	85	1230		11.45		122		81		1180		10.15				138	77			1140	8.63		162	72		1090	7.55	185		56	1040	7.04		199	55	1010	6.15	228	54	950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200	3690	AD ₂	26.09	54	130	2840	22.32	63	130	2660	19.35	72	130	2510	18.08	77	130	2440	15.63	90	130	2290	13.28	105	130	240	11.86	118	129	1990	10.13	138	122		1890	9.41		149	122			900			8.16			172			116				870	7.63		183		112	900	6.59				212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																												
19.70	71	85	1500		16.99	82	85	1400		15.84	88	85	1350		13.84	101	85	1270	12.98	108	85	1230	11.45		122	81	1180		10.15		138		77		1140		8.63	162			72	1090			7.55	185	56	1040	7.04		199	55	1010		6.15	228	54	950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200	3690	AD ₂	26.09		54	130	2840	22.32		63	130	2660	19.35	72	130	2510	18.08	77	130	2440	15.63	90	130	2290	13.28	105	130	240	11.86	118	129	1990	10.13	138	122	1890	9.41	149	122	900		8.16	172		116	870			7.63			183			112			900			6.59	212	106		880		5.60	250	99	880			5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																			
16.99	82	85	1400		15.84	88	85	1350		13.84	101	85	1270		12.98	108	85	1230	11.45	122	81	1180	10.15		138	77	1140		8.63		162		72	1090	7.55		185	56			1040	7.04	199		55	1010	6.15	228	54		950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200	3690	AD ₂	26.09		54	130	2840	22.32		63		130	2660	19.35	72		130	2510	18.08	77	130	2440	15.63	90	130	2290	13.28	105	130	240	11.86	118	129	1990	10.13	138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63		183	112		900	6.59			212			106			880			5.60		250	99	880	5.00		280		95	860	4.27	328	87		920	4.00	350	85	910	3.37	415	79	900																																																										
15.84	88	85	1350		13.84	101	85	1270		12.98	108	85	1230		11.45	122	81	1180	10.15	138	77	1140	8.63		162	72	1090		7.55	185	56		1040	7.04	199		55	1010	6.15		228	54	950		5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200	3690	AD ₂	26.09		54	130	2840	22.32		63		130	2660	19.35	72		130		2510	18.08	77	130		2440	15.63	90	130	2290	13.28	105	130	240	11.86	118	129	1990	10.13	138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212		106	880		5.60	250			99			880			5.00			280	95	860	4.27	328	87		920		4.00	350	85	910	3.37	415	79	900																																																																	
13.84	101	85	1270		12.98	108	85	1230		11.45	122	81	1180		10.15	138	77	1140	8.63	162	72	1090	7.55		185	56	1040		7.04	199	55		1010	6.15	228		54	950	5.76		243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200	3690		AD ₂	26.09	54	130		2840		22.32	63	130	2660		19.35		72	130	2510	18.08		77		130	2440	15.63	90		130	2290	13.28	105	130	240	11.86	118	129	1990	10.13	138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60		250	99		880	5.00			280			95			860	4.27		328	87	920	4.00	350	85		910	3.37	415	79	900																																																																						
12.98	108	85	1230		11.45	122	81	1180	10.15	138	77	1140	8.63	162	72	1090	7.55	185	56	1040	7.04	199	55		1010	6.15	228		54	950	5.76		243	53	930		5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200	3690	AD ₂	26.09		54	130	2840	22.32			63	130	2660		19.35		72	130	2510	18.08		77		130	2440	15.63	90		130		2290	13.28	105	130		240	11.86	118	129	1990	10.13	138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280		95	860		4.27	328			87			920	4.00		350	85		910	3.37	415	79	900																																																																													
11.45	122	81	1180		10.15	138	77	1140	8.63	162	72	1090	7.55	185	56	1040	7.04	199	55	1010	6.15	228	54		950	5.76	243		53	930	5.09		275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200	3690		AD ₂	26.09	54	130		2840		22.32	63	130	2660			19.35	72	130		2510		18.08	77	130	2440		15.63		90	130	2290	13.28		105		130	240	11.86	118		129	1990	10.13	138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27		328	87		920	4.00			350	85		910	3.37		415	79	900																																																																																		
10.15	138	77	1140		8.63	162	72	1090	7.55	185	56	1040	7.04	199	55	1010	6.15	228	54	950	5.76	243	53		930	5.09	275		51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200	3690		AD ₂	26.09	54	130			2840	22.32	63		130		2660	19.35	72	130			2510	18.08	77		130		2440	15.63	90	130		2290		13.28	105	130	240		11.86		118	129	1990	10.13		138	122	1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920		4.00	350		85	910	3.37		415	79		900																																																																																							
8.63	162	72	1090		7.55	185	56	1040	7.04	199	55	1010	6.15	228	54	950	5.76	243	53	930	5.09	275	51		890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200	3690		AD ₂	26.09	54	130			2840	22.32	63			130	2660	19.35		72		130	2510	18.08	77			130	2440	15.63		90		130	2290	13.28	105		130		240	11.86	118	129		1990		10.13	138	122	1890		9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85		910	3.37	415	79	900																																																																																													
7.55	185	56	1040		7.04	199	55	1010	6.15	228	54	950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200	3690		AD ₂	26.09	54	130			2840	22.32	63			130	2660	19.35			72	130	2510		18.08		77	130	2440	15.63			90	130	2290		13.28		105	130	240	11.86		118		129	1990	10.13	138		122		1890	9.41	149	122		900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																	
7.04	199	55	1010		6.15	228	54	950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200		3690	AD ₂	26.09	54			130	2840	22.32			63	130	2660			19.35	72	130			2510	18.08	77		130		2440	15.63	90	130			2290	13.28	105		130		240	11.86	118	129		1990		10.13	138	122	1890		9.41		149	122	900	8.16		172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																			
6.15	228	54	950	5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200	3690		AD ₂	26.09	54		130		2840	22.32			63	130	2660			19.35	72	130			2510	18.08	77			130	2440	15.63		90		130	2290	13.28	105			130	240	11.86		118		129	1990	10.13	138		122		1890	9.41	149	122		900		8.16	172	116	870		7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																						
5.76	243	53	930	5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200		3690	AD ₂	26.09	54			130	2840		22.32		63	130			2660	19.35	72			130	2510	18.08			77	130	2440			15.63	90	130		2290		13.28	105	130	240			11.86	118	129		1990		10.13	138	122	1890		9.41		149	122	900	8.16		172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																										
5.09	275	51	890	4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200		3690	AD ₂	26.09		54		130	2840			22.32	63		130		2660	19.35			72	130	2510			18.08	77	130			2440	15.63	90			130	2290	13.28		105		130	240	11.86	118			129	1990	10.13		138		122	1890	9.41	149		122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																														
4.51	310	48	870	3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200		3690	AD ₂	26.09		54		130		2840		22.32	63			130	2660		19.35		72	130			2510	18.08	77			130	2440	15.63			90	130	2290			13.28	105	130		240		11.86	118	129	1990			10.13	138	122		1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																																		
3.83	366	45	830	28.37	49	130	2940	AD ₂	28.32	49	200		3690	AD ₂	26.09		54		130		2840		22.32		63		130	2660			19.35	72		130		2510	18.08			77	130	2440			15.63	90	130			2290	13.28	105			130	240	11.86		118		129	1990	10.13	138	122		1890	9.41	149	122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																																						
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22.32	63	130	2660		19.35	72	130		2510		18.08		77		130		2440		15.63		90		130		2290		13.28	105			130	240		11.86		118	129			1990	10.13	138			122	1890	9.41	149		122	900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																																																										
19.35	72	130	2510		18.08	77	130		2440		15.63		90		130		2290		13.28		105		130		240		11.86	118			129	1990		10.13		138	122			1890	9.41	149	122		900	8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																																																																
18.08	77	130	2440		15.63	90	130		2290		13.28		105		130		240		11.86		118		129		1990		10.13	138			122	1890		9.41		149	122	900		8.16	172	116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																																																																						
15.63	90	130	2290		13.28	105	130		240		11.86		118		129		1990		10.13		138		122		1890		9.41	149			122	900	8.16	172		116	870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																																																																												
13.28	105	130	240		11.86	118	129		1990		10.13		138		122		1890		9.41		149		122		900		8.16	172	116		870	7.63	183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																																																																																		
11.86	118	129	1990		10.13	138	122		1890		9.41		149		122		900		8.16		172		116	870	7.63		183	112	900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																																																																																								
10.13	138	122	1890		9.41	149	122		900		8.16		172		116		870		7.63	183	112		900	6.59	212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																																																																																														
9.41	149	122	900		8.16	172	116		870		7.63		183		112	900	6.59		212	106	880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																																																																																																				
8.16	172	116	870		7.63	183	112		900		6.59	212	106		880	5.60	250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																																																																																																										
7.63	183	112	900		6.59	212	106	880	5.60		250	99	880	5.00	280	95	860	4.27	328	87	920	4.00	350	85	910	3.37	415	79	900																																																																																																																																																																																																
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RCR... RCF... RCK... RCS... RCR系列斜齒輪減速電機

RCR... RCF... RCK... RCS... RCR系列斜齒輪減速電機

Table with 6 columns: Output speed, Output torque, Ratio, Permitted overhung load, Service factor, Model. Rows include 0.12kW and 0.18kW power ratings with various gear ratios and models like RCR 27 R17 D63S4.

Table with 6 columns: Output speed, Output torque, Ratio, Permitted overhung load, Service factor, Model. Rows include 0.12kW and 0.18kW power ratings with various gear ratios and models like RCR 17 D63M6.

Table with 6 columns: Output speed, Output torque, Ratio, Permitted overhung load, Service factor, Model. Rows include 0.18kW power ratings with various gear ratios and models like RCR 147 R77 D63M4.

Table with 6 columns: Output speed, Output torque, Ratio, Permitted overhung load, Service factor, Model. Rows include 0.18kW power ratings with various gear ratios and models like RCR 77 R37 D63M4.

RCR..

RCF..

RCK..

RCS..

RCR系列斜齒輪減速電機

RCR..

RCF..

RCK..

RCS..

RCR系列斜齒輪減速電機

Table for RCR series gear reducers, 11.0kW. Columns include output speed, torque, ratio, permitted overhung load, service factor, and model (RCR/RCRF).

Table for RCR series gear reducers, 11.0kW. Columns include output speed, torque, ratio, permitted overhung load, service factor, and model (RCR/RCRF).

Table for RCR series gear reducers, 15.0kW. Columns include output speed, torque, ratio, permitted overhung load, service factor, and model (RCR/RCRF).

Table for RCR series gear reducers, 15.0kW and 18.5kW. Columns include output speed, torque, ratio, permitted overhung load, service factor, and model (RCR/RCRF).

RCR..

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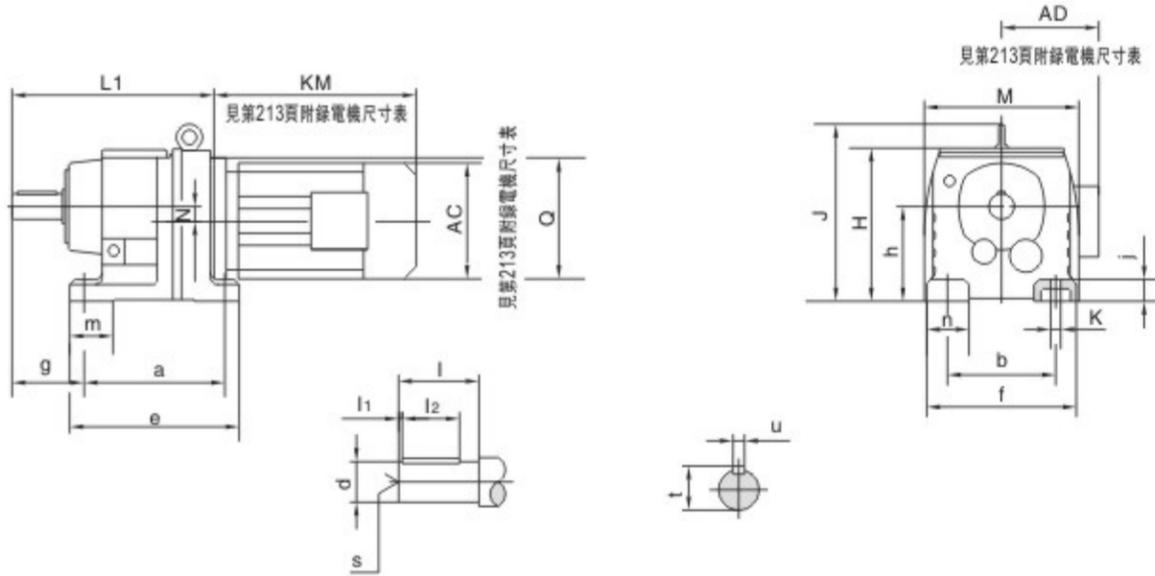
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RCS..

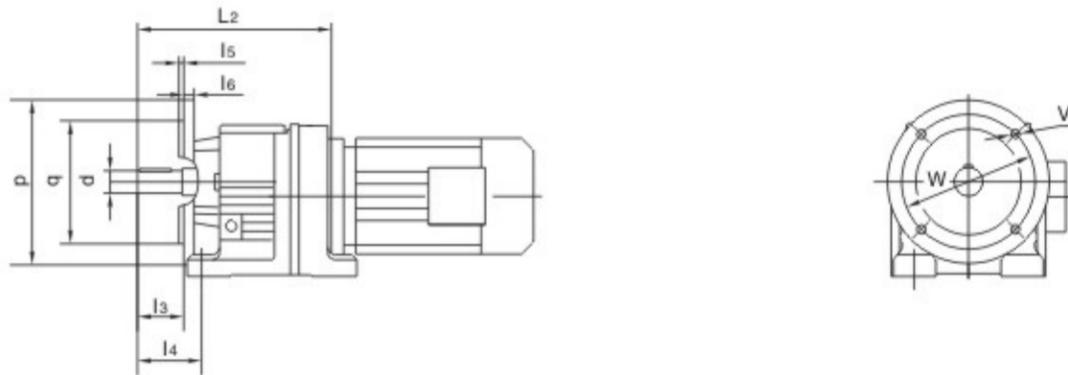
RCR系列斜齒輪減速電機

RCR系列斜齒輪減速電機

RCR17..~RCR167..



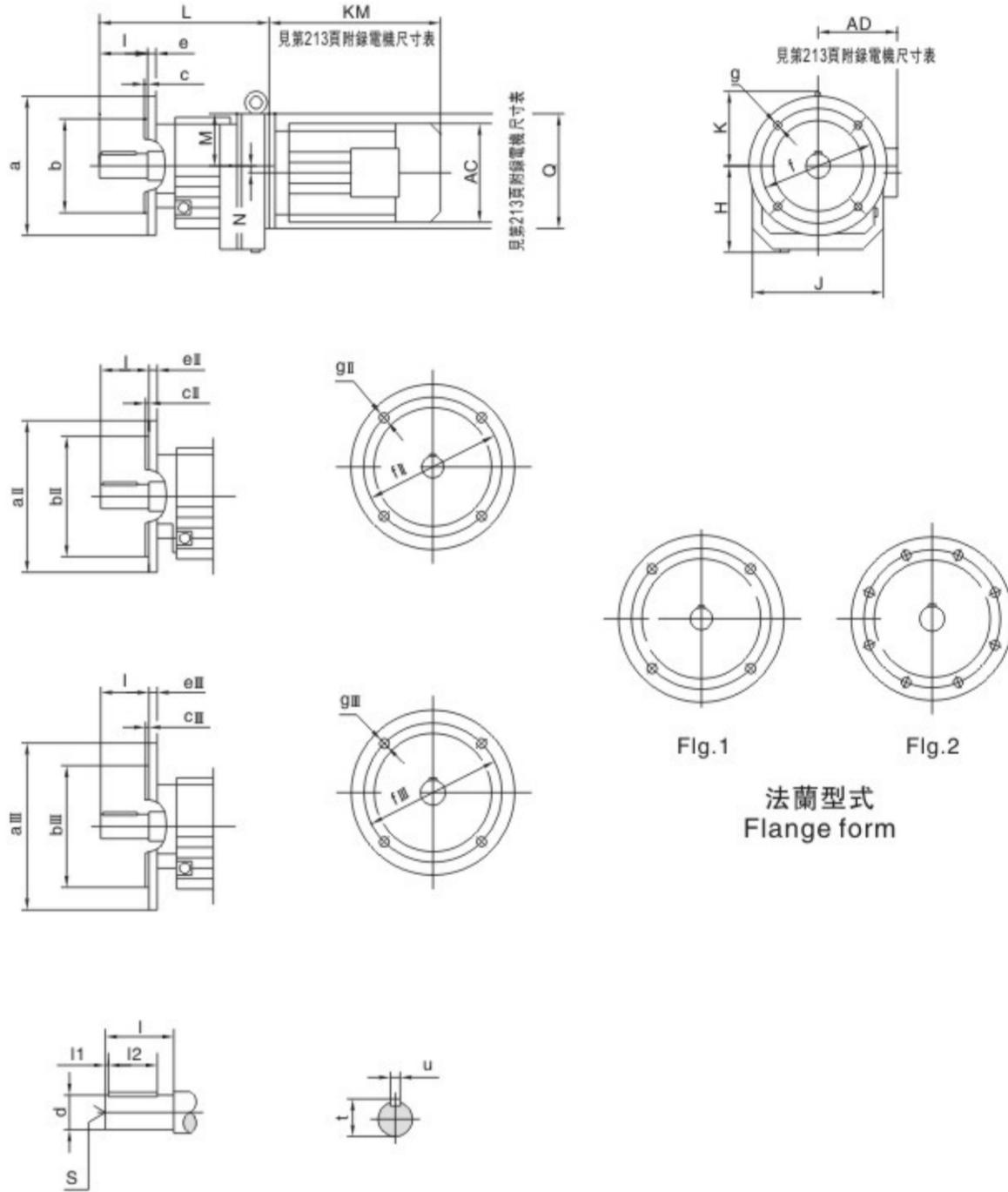
RCR17F..~RCR87F..



型號 size	a b	e f	g	h	j	k	m n	軸伸尺寸 Shaft dimension				
								d	l	l ₁ l ₂	S	t u
RCR17.. RCR17F..	110 110	131 135	58	75 _{-0.5}	12	9	28 25	20k6	40	4 32	M6	22.5 6
RCR27.. RCR27F..	130 110	152 145	75	90 _{-0.5}	18	9	27 32	25k6	50	3.5 40	m10	28 8
RCR37.. RCR37F..	130 110	160 145	75	90 _{-0.5}	18	9	40 35	25k6	50	3.5 40	m10	28 8
RCR47.. RCR47F..	165 135	195 170	90	115 _{-0.5}	24	13.5	50 42	30k6	60	3.5 50	m10	33 8
RCR57.. RCR57F..	165 135	200 190	100	115 _{-0.5}	24	13.5	60 55	35k6	70	7 56	m12	38 10
RCR67.. RCR67F..	195 150	235 210	100	130 _{-0.5}	30	14	60 60	35k6	70	7 56	m12	38 10
RCR77.. RCR77F..	205 170	245 230	115	140 _{-0.5}	30	17.5	60 60	40k6	80	5 70	m16	43 12
RCR87.. RCR87F..	260 215	310 290	140	180 _{-0.5}	45	17.5	90 75	50k6	100	10 80	m16	53.5 14
型號 size	法蘭尺寸 flange dimension					H	J	L1	L2	M	N	Q
	P q	l ₃	l ₄	L ₅ l ₆	V w							
RCR17.. RCR17F..	120 80j6	40	66	3 8	6.5 100	134	/	207	215	140	0	/
RCR27.. RCR27F..	120 80j6	50	81	3 8	6.5 100	147	/	193	199	151	3.4	120
RCR37.. RCR37F..	120 80j6	50	81	3 8	6.6 100	151	/	201	207	145	10.1	120
RCR47.. RCR47F..	140 95j6	60	90	3 10	9 115	187	/	235	235	178	14	160
RCR57.. RCR57F..	160 110j6	70	100	3.5 10	9 130	187	/	257	257	202	11.2	160
RCR67.. RCR67F..	200 130j6	70	100	3.5 12	11 165	212	243	280	280	215	20.7	160
RCR77.. RCR77F..	250 180j6	80	115	4 15	13.5 215	228	269	300	300	235	15.9	200
RCR87.. RCR87F..	300 230j6	100	140	4 16	13.5 26.5	295	345	372	372	297	12.6	250

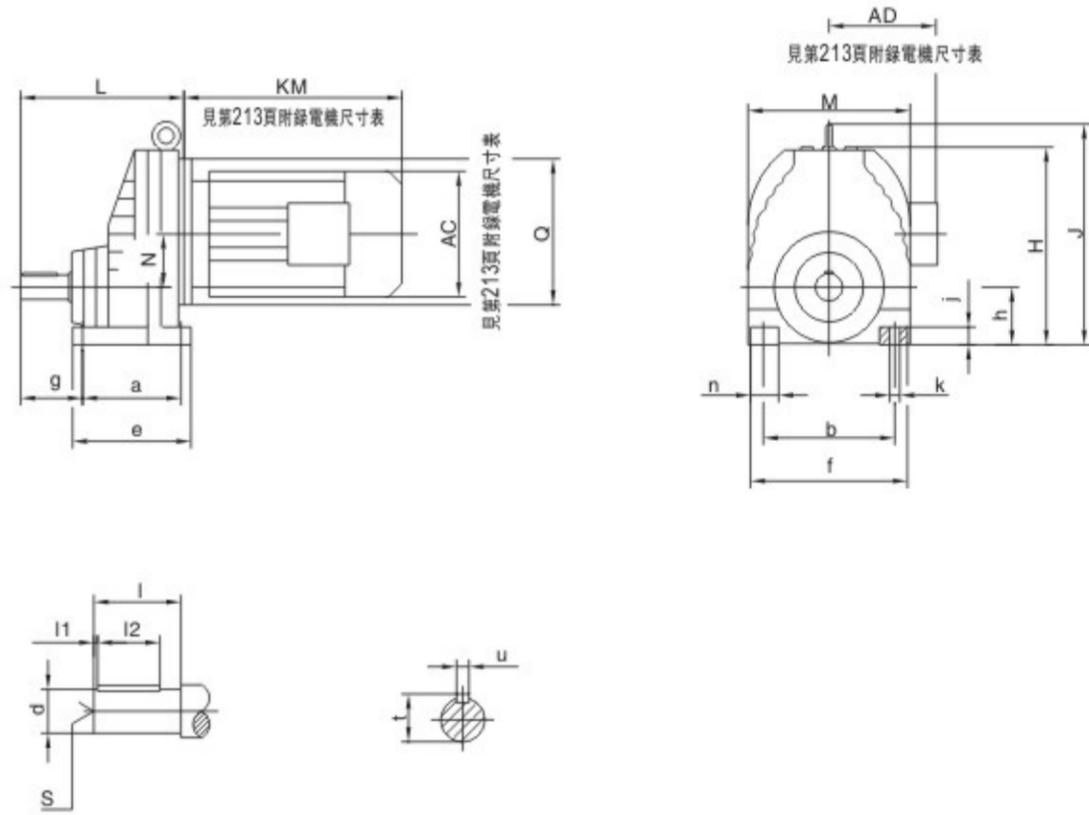
型號 size	a b	e f	g	h	j	k	m n	軸伸尺寸 Shaftdimension					H	J	L M	N	Q
								d	l	l ₁ l ₂	S	t u					
RCR97..	310 250	365 340	160	225 _{-0.5}	55	22	100 90	60m6	120	5 110	M20	64 18	368	418	440 348	10.2	300
RCR107..	370 290	440 400	185	250 _{-0.5}	65	26	125 110	70m6	140	7.5 125	M20	74.5 20	408	475	495 409	20.4	350
RCR137..	410 340	490 450	220	315 ₋₁	70	33	130 110	90m6	170	5 160	M24	95 25	495	562	589 458	25.1	400
RCR147..	500 380	590 530	260	355 ₋₁	80	39	150 150	110m6	210	15 180	M24	116 28	565	637	695 540	33.4	450
RCR167..	580 500	670 660	270	425 ₋₁	100	39	160 160	120m6	210	5 200	M24	127 32	675	749	790 670	59.9	550

RCRF17..~RCRF167..

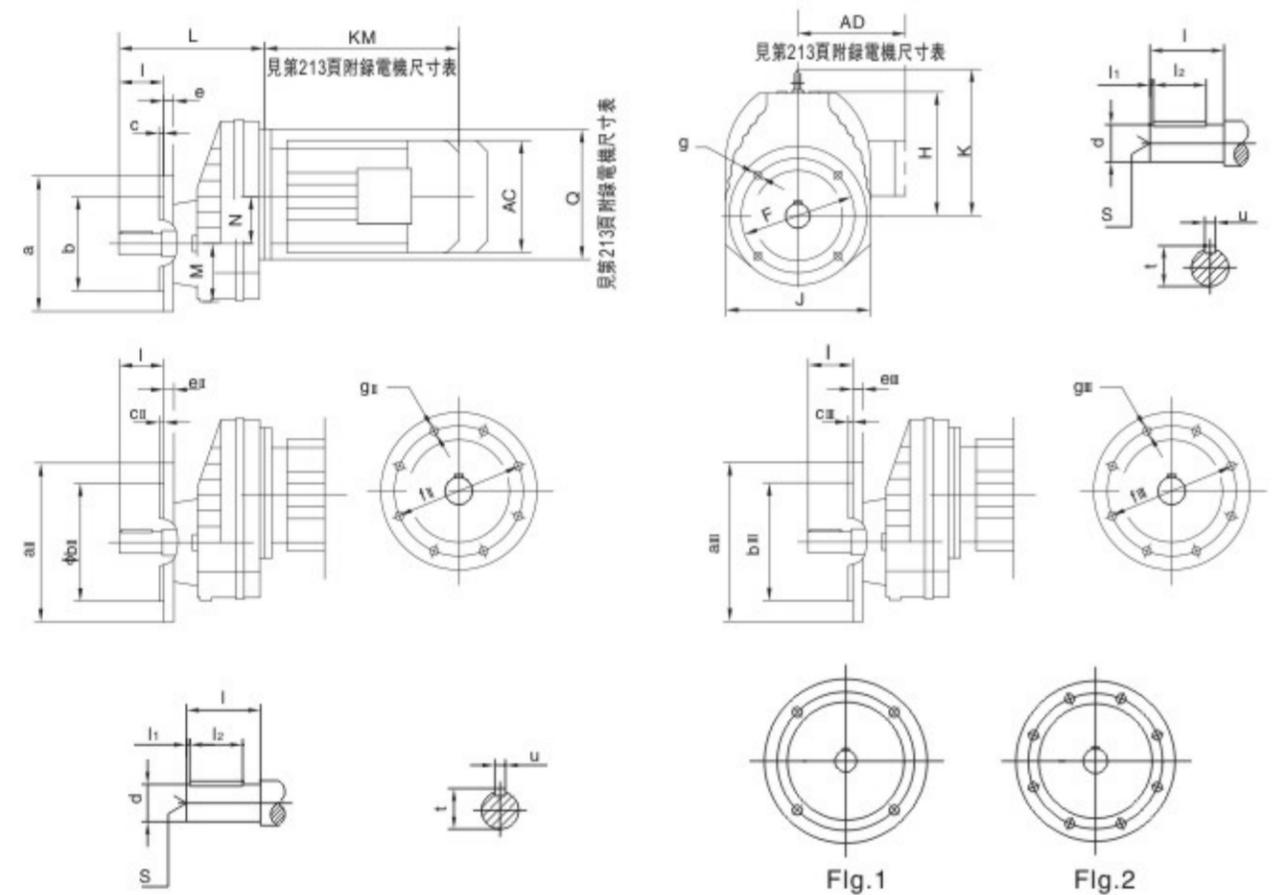


型號 size	法蘭 尺寸 flange dimension	a aII aIII	b bII bIII	c cII cIII	e eII eIII	f fII fIII	g gII gIII	H J K	L M N	Q	軸伸尺寸 Shaftdimension				
											d	l	l ₁ l ₂	S	t u
RCRF17..	Flg.1	120 140 /	80j6 95j6 /	3 3 /	8 9 /	100 115 /	6.5 8.5 /	76 130 /	215 59 0	/	20k6	40	4 32	M6	22.5 6
RCRF27..	Flg.1	120 140 160	80j6 95j6 110j6	3 3 3.5	8 9 10	100 115 130	6.5 8.5 8.5	92 142 /	199 57 3.4	120	25k6	50	3.5 40	m10	28 8
RCRF37..	Flg.1	120 160 200	80j6 110j6 130j6	3 3.5 3.5	8 10 12	100 130 165	6.6 9 11	94 161 /	207 61 10.1	120	25k6	50	3.5 40	m10	28 8
RCRF47..	Flg.1	140 160 200	95j6 110j6 130j6	3 3.5 3.5	10 10 12	115 130 165	9 9 11	118 178 /	235 72 14	160	30k6	60	3.5 50	m10	33 8
RCRF57..	Flg.1	160 200 250	110j6 130j6 180j6	3.5 3.5 4	10 12 15	130 165 215	9 11 13.5	121 202 /	257 72 11.2	160	35k6	70	7 56	m12	38 10
RCRF67..	Flg.1	200 250 /	130j6 180j6 /	3.5 4 /	12 15 /	165 215 /	11 13.5 /	134 215 113	280 82 20.7	160	35k6	70	7 56	m12	38 10
RCRF77..	Flg.1	250 300 /	180j6 230j6 /	4 4 /	15 18.5 /	215 265 /	13.5 13.5 /	144 235 129	300 88 15.9	200	40k6	80	5 70	m16	43 12
RCRF87..	Flg.1	300 350 /	230j6 250h6 /	4 5 /	16 18 /	265 300 /	13.5 17.5 /	184 297 165	372 115 12.6	250	50k6	100	10 80	m16	53.5 14
RCRF97..	Flg.1 Flg.2 /	350 450 /	250h6 350h6 /	5 5 /	18 22 /	300 400 /	17.5 17.5 /	230 348 193	440 144 10.2	300	60m6	120	5 110	m20	64 18
RCRF107..	Flg.1 Flg.2 /	350 450 /	250h6 350h6 /	5 5 /	20 22 /	300 400 /	17.5 17.5 /	255 409 224	495 158 20.4	350	70m6	140	7.5 125	m20	74.5 20
RCRF137..	Flg.2	450 550 /	350h6 450h6 /	5 5 /	22 25 /	400 500 /	17.5 17.5 /	320 458 247	589 180 25.1	400	90m6	170	5 160	m24	95 25
RCRF147..	Flg.2	450 550 /	350h6 450h6 /	5 5 /	22 25 /	400 500 /	17.5 17.5 /	361 540 285	695 210 33.4	450	110m6	210	15 180	m24	116 28
RCRF167..	Flg.2	550 660 /	450h6 550h6 /	5 6 /	25 28 /	500 600 /	17.5 22 /	430 670 324	790 250 59.9	550	120m6	210	5 200	m24	127 32

RCRX57..RCRX107..



RCR XF57..RCR XF107..



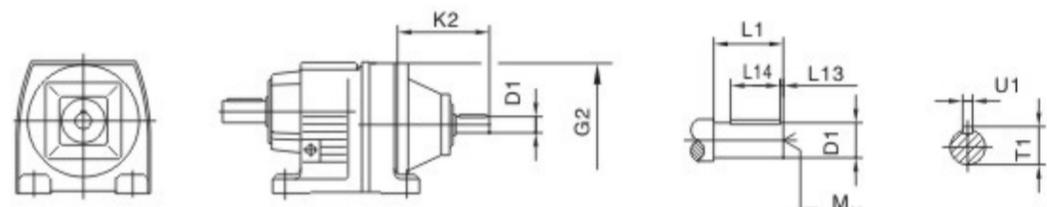
法蘭型式
Flange form

型號 size	a b	e f	g	h	j	k	n	軸伸尺寸 Shaftdimension					H	J	L M	N	Q
								d	l	l1 l2	S	t u					
RCRX57..	110 125	137 156	56	63-0.5	18	11	31	20k6	40	3.5 32	M6	22.5 6	202	/	174 162	52	160
RCRX67..	120 135	150 170	75	80-0.5	20	13.5	35	25k6	50	3.5 40	M10	28 8	226	/	201 176	60	160
RCRX77..	150 170	190 204	85	90-0.5	25	17.5	50	30k6	60	3.5 50	M10	33 8	271	311	227 210	72	200
RCRX87..	160 215	206 266	110	100-0.5	30	17.5	60	40k6	80	5 70	M16	43 12	332	372	269 272	93.5	250
RCRX97..	185 250	240 320	140	112-0.5	35	22	70	50k6	100	10 80	M16	53.5 14	393	440	316 328	116	300
RCRX107..	210 310	260 360	152	140-0.5	45	22	80	60m6	120	5 110	M20	64 18	459	506	364 370	130	350

型號 size	法蘭 尺寸 flange dimension	a aII aIII	b bII bIII	c cII cIII	e eII eIII	f fII fIII	g gII gIII	H J K	L M N	Q	軸伸尺寸 Shaftdimension				
											d	l	l1 l2	S	t u
RCRF57..	Fig.1	140 160 200	95j6 110j6 130j6	3 3.5 3.5	10 10 12	115 130 165	9 9 11	139 162 /	174 62 52	160	20k6	40	5 32	M6	22.5 6
RCRF67..	Fig.1	160 200 250	110j6 130j6 180j6	3.5 3.5 4	10 12 15	130 165 215	9 11 13.5	147 175 /	201 70 60	160	25k6	50	3.5 40	M10	28 8
RCRF77..	Fig.1	200 250 /	130j6 180j6 /	3.5 4 /	12 15 /	165 215 /	11 13.5 /	181 210 221	227 78 72	200	30k6	60	3.5 50	50	33 8
RCRF87..	Fig.1	250 300 /	180j6 230j6 /	4 4 /	15 16 /	215 265 /	13.5 13.5 /	232 272 272	269 98 93.5	250	40k6	80	5 70	M16	43 12
RCRF97..	Fig.1	300 350 /	230j6 250h6 /	4 5 /	16 18 /	265 300 /	13.5 17.5 /	281 328 328	316 118 116	300	50k6	100	10 80	M16	53.5 14
RCRF107..	Fig.1 Fig.2	350 450 /	250h6 350h6 /	5 5 /	18 22 /	300 400 /	17.5 17.5 /	319 370 366	364 135 130	350	60m6	120	5 110	M20	64 18

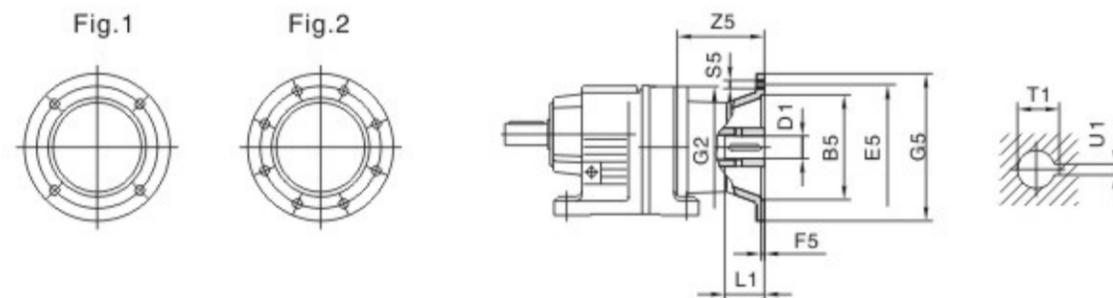
RCR... RCF... RCK... RCS... RCR系列斜齒輪減速電機

RCR..AD..



減速箱規格 Gear unit type	聯接盤規格 Motor adcopator	G2	K2	D1	L1	L13	L14	T1	U1	M
RCR..27 RCR..37	AD1	120	102	16	40	4	32	18	5	M5
	AD2		130	19	40	4	32	21.5	6	M6
RCR..47 RCR..57 RCR..67	AD2	160	123	19	40	4	32	21.5	6	M6
	AD3		159	24	50	5	40	27	8	M8
RCR..77	AD2	200	116	19	40	4	32	21.5	6	M6
	AD3		151	24	50	5	40	27	8	M8
	AD4		224	38	80	5	70	41	10	M12
RCR..87	AD2	250	111	19	40	4	32	21.5	6	M6
	AD3		156	28	60	5	50	31	8	M10
	AD4		219	38	80	5	70	41	10	M12
	AD5		292	42	110	10	70	45	12	M16
RCR..97	AD3	300	151	28	60	5	50	31	8	M10
	AD4		214	38	80	5	70	41	10	M12
	AD5		287	42	110	10	70	45	12	M16
	AD6		327	48	110	10	80	51.5	14	M16
RCR..107	AD3	350	145	28	60	5	50	31	8	M10
	AD4		208	38	80	5	70	41	10	M12
	AD5		281	42	110	10	70	45	12	M16
	AD6		321	48	110	10	80	51.5	14	M16
RCR..137	AD4	400	201	38	80	5	70	41	10	M12
	AD5		274	42	110	10	70	45	12	M16
	AD6		314	48	110	10	80	51.5	14	M16
	AD7		308	55	110	10	90	59	16	M20
RCR..147	AD4	450	193	38	80	5	70	41	10	M12
	AD5		266	42	110	10	70	45	12	M16
	AD6		306	48	110	10	80	51.5	14	M16
	AD7		300	55	110	10	90	59	16	M20
	AD8		383	70	140	15	110	74.5	20	M20
RCR..167	AD5	550	258	42	110	10	70	45	12	M16
	AD6		298	48	110	10	80	51.5	14	M16
	AD7		292	55	110	10	90	59	16	M20
	AD8		374	70	140	15	110	74.5	20	M20

RCR..AM..



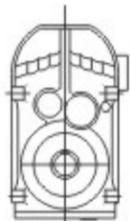
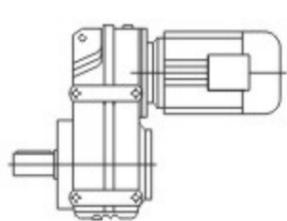
減速箱規格 Gear unit type	聯接盤規格 Motor adcopator	Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1		
RCR..27 RCR..37	AM63	1	95	115	3.5	120	140	M8	72	11	23	12.8	4		
	AM71 ¹⁾		110	130			14			30	16.3	5			
	AM80 ¹⁾		130	165	4.5		200	M10		19	40	21.8	6		
	AM90 ¹⁾									24	50	27.3	8		
RCR..47 RCR..57 RCR..67	AM63	1	95	115	3.5	160	140	M8	66	11	23	12.8	4		
	AM71		110	130			14			30	16.3	5			
	AM80		130	165	4.5		200	M10		19	40	21.8	6		
	AM90									24	50	27.3	8		
	AM100 ¹⁾		180	215	5		250	M12		28	60	31.3	8		
AM112 ¹⁾	134	28				60			31.3	8					
RCR..77	AM63	1	95	115	3.5	200	140	M8	60	11	23	12.8	4		
	AM71		110	130			14			30	16.3	5			
	AM80		130	165	4.5		200	M10		19	40	21.8	6		
	AM90									24	50	27.3	8		
	AM100 ¹⁾		180	215	5		250	M12		126	28	60	31.3	8	
	AM112 ¹⁾									179	38	80	41.3	10	
	RCR..87		AM80	1	130		165	4.5		250	200	M10	87	19	40
AM90		24	50		27.3	8									
AM100		180	215		5	250	M12	121	28		60	31.3		8	
AM112								174	38		80	41.3		10	
AM132S AM132M		230	265		5	300	M12	174	38		80	41.3		10	
AM132ML								174	38		80	41.3		10	
AM160 ¹⁾		250	300		6	350	M16	232	42		110	45.3		12	
AM180 ¹⁾								48	51.8			14			
RCR..97	AM100	1	180	215	5	300	250	M12	116	28	60	31.3	8		
	AM112		230	265			300			M12	169	38	80	41.3	10
	AM132S AM132M										169	38	80	41.3	10
	AM132ML		250	300	6		350	M16		227	42	110	45.3	12	
	AM160									48	51.8		14		
	AM180		300	350	7		400	M16		268	55	110	59.3	16	
	AM200									268	55		59.3	16	
	AM225 ¹⁾		2	350	400		7	450		283	60	140	64.4	18	

1) 如果安裝在RCR系列底腳安裝方式的減速機上，請檢查尺寸G5/2，它可能已突出平面
Dimension G5/2 May protrude past foot mounting surface if mounted on RCR foot-mounted gear unit, please check.

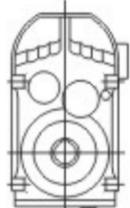
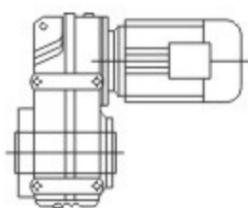
6. RCF 平行軸 – 斜齒輪減速電機 RCF Parallel shaft – Helical Geared Motor

6.1 設計方案 6.1 Versions of geared motors

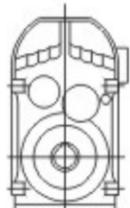
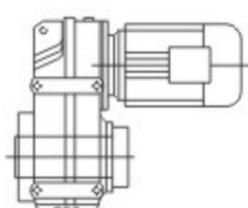
平行軸裝式斜齒輪減速電機有以下設計方案：
The following types of Parallel Shaft – Helical Geared Motor can be supplied:



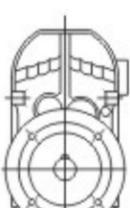
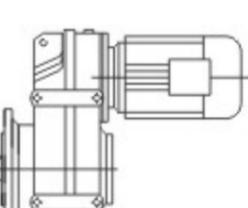
RCF..D..
底腳安裝平行軸-斜齒輪減速電機
Solid shaft
Rail mount with tapped holes



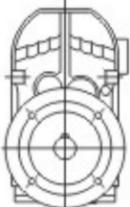
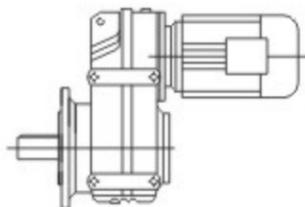
RCFA..B D..
底腳空心軸安裝平行軸-斜齒輪減速電機
Hollow shaft with key
Rail mount with tapped holes



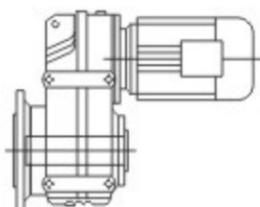
RCFV..B D..
底腳花鍵空心軸安裝平行軸-斜齒輪減速電機
Splined hollow shaft
Rail mount with tapped holes



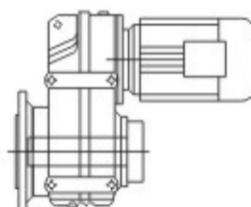
RCFH..B D..
底腳空心軸鎖緊盤安裝平行軸-斜齒輪減速電機
Shrink disk hollow shaft
Rail mount with tapped holes



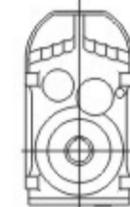
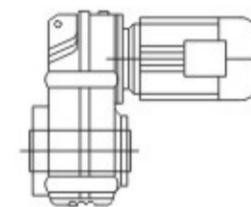
RCFF..D..
B5 法蘭安裝平行軸-斜齒輪減速電機
Solid shaft
Flange mounted(D&B5 style flange with through holes)



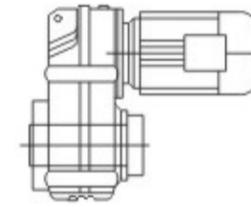
RCFAF..D..
B5 法蘭空心軸安裝平行軸-斜齒輪減速電機
Hollow shaft with key
Flange mount(D&B5 style flange with through holes)
RCFVF..D..
B5 法蘭花鍵空心軸安裝平行軸-斜齒輪減速電機
Hollow shaft with key
Flange mount(D&B5 style flange with through holes)



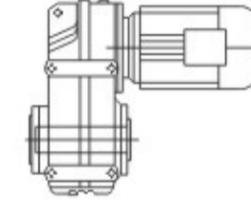
RCFHF..D..
B5 法蘭空心軸鎖緊盤安裝平行軸-斜齒輪減速電機
Shrink disk hollow shaft
Flange mount(D&B5 style flange with through holes)



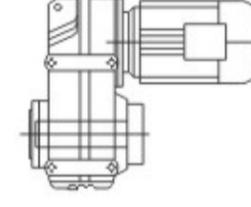
RCFA..D..
空心軸安裝平行軸-斜齒輪減速電機
Hollow shaft with key
Shaft mount



RCFV..D..
花鍵空心軸安裝平行軸-斜齒輪減速電機
Splined hollow shaft
Shaft mount



RCFH..D..
空心軸鎖緊盤安裝平行軸-斜齒輪減速電機
Shrink disk hollow shaft
Shaft mount



RCFAZ..D
B14 法蘭空心軸安裝平行軸-斜齒輪減速電機
Hollow shaft with key
Face mount(D&B14 style flange with tapped holes)

RCFVZ..D
B14 法蘭花鍵空心軸安裝平行軸-斜齒輪減速電機
Hollow shaft with key
Face mount(D&B14 style flange with tapped holes)

RCFHZ..D
B14 法蘭空心軸鎖緊盤安裝平行軸-斜齒輪減速電機
Shrink disk hollow shaft
Face mount(D&B14 style flange with tapped holes)

6.2 可行的組合方式 6.2 Type of combination

以下是平行軸-斜齒輪減速機與交流(帶制動)電機的組合列表。表中給出了每種組合的速比範圍。
The below is combination table between gear box and electro motor in each list the ratio range.

減速器型號 Gear unit size	級 Stages	D63 D71	D80	D90	D100	D112	D132S	D132M
RCF/FF/FA/FAF37	2	4.22-7.44 8.97-23.63	3.77-23.63	3.77-20.57	3.77-6.74 8.01-14.33 17.03			
RCF/FF/FA/FAF37	3	23.88-128.51	23.88-100.36	23.88-51.70 58.32-86.53	23.88-31.69 38.31 51.70 58.32 70.50			
RCF/FF/FA/FAF47	2	6.34-8.96 13.93-30.86	4.99-30.86	4.99-30.86	4.99-25.72			
RCF/FF/FA/FAF47	3	28.88-190.76	28.88-150.06	28.88-130.07	28.88-56.49 68.09-105.09			
RCF/FF/FA/FAF57	2	6.58-9.31 13.52-40.13	5.18-34.24	5.18-29.94	5.18-24.96	5.18-21.17		
RCF/FF/FA/FAF57	3	30.15-199.70	30.15-157.09	30.15-136.16	30.15-58.97 83.46-110.01	30.15-50.10 83.46-93.47		
RCF/FF/FA/FAF67	2	7.53-9.08 18.29-36.30	5.95-9.08 14.46-36.30	3.97-36.30	3.97-32.08	3.97-27.41	3.97-22.05	3.97-22.05
RCF/FF/FA/FAF67	3	43.20-228.99	34.01-195.39	34.01-170.85	34.01-142.40	34.01-67.65 90.59-120.79	34.01-53.73 90.59-95.94	34.01-53.73 90.59-95.94
RCF/FF/FA/FAF77	2	21.43-36.58	8.26-9.30 17.49-36.58	5.76-9.30 12.20-36.58	4.28-36.58	4.28-31.51	4.28-25.50	4.28-25.50
RCF/FF/FA/FAF77	3	48.37-72.50 94.93-281.71	38.23-225.79	25.54-198.31	25.54-166.47	25.54-142.27	25.54-58.32 75.02-114.45	25.54-58.32 75.02-114.45
RCF/FF/FA/FAF87	2		23.68-33.92	7.35-8.29 17.12-33.92	5.63-8.29 13.12-33.92	5.63-8.29 13.12-33.92	4.12-33.92	4.12-33.92
RCF/FF/FA/FAF87	3		109.49-270.68	39.30-50.36 76.39-270.68	29.20-228.93	29.20-197.20	29.20-159.61	29.20-159.61
RCF/FF/FA/FAF97	2			9.06 22.11-43.28	7.07-9.06 17.25-43.28	7.07-9.06 17.25-43.28	4.57-43.28	4.57-43.28
RCF/FF/FA/FAF97	3			58.06-72.29 80.31 89.85-97.58 112.99-276.77	44.49-72.29 80.31-276.77	44.49-72.29 80.31-276.77	32.50-223.88	32.50-223.88
RCF/FF/FA/FAF107	2				21.76-33.79	21.76-33.79	7.40-9.69 14.67-33.79	7.40-9.69 14.67-33.79
RCF/FF/FA/FAF107	3				58.12-83.99 92.47-254.40	58.12-83.99 92.47-254.40	37.61-254.40	37.61-254.40
RCF/FF/FA/FAF127	2							7.88-8.86 14.55-26.86
RCF/FF/FA/FAF127	3							37.28-170.83

續表

減速器型號 Gear unit size	級 Stages	D132ML	D160M	D160L	D180	D200
RCF/FF/FA/FAF77	2	4.28-19.70	4.28-19.70			
RCF/FF/FA/FAF77	3	25.54-43.58	25.54-43.58			
RCF/FF/FA/FAF87	2	4.12-26.50	4.12-26.50	4.12-26.50	4.12-21.32	
RCF/FF/FA/FAF87	3	29.20-123.29	29.20-123.29	29.20-123.29	29.20-50.36	
RCF/FF/FA/FAF97	2	4.57-33.91	4.57-33.91	4.57-33.91	4.57-27.44	4.57-22.11
RCF/FF/FA/FAF97	3	32.50-89.85 102.16-174.87	32.50-89.85 102.16-174.87	32.50-89.85 102.16-174.87	32.50-75.63 86.59 102.16-140.71	32.50-58.06 75.63 86.59 102.16-112.99
RCF/FF/FA/FAF107	2	6.22-9.69 12.33-33.79	6.22-9.69 12.33-33.79	6.22-9.69 12.33-33.79	6.22-33.79	6.22-27.57
RCF/FF/FA/FAF107	3	31.80-199.31	31.80-199.31	31.80-199.31	31.80-161.28	31.80-74.52 88.49 101.38-129.97
RCF/FF/FA/FAF127	2	6.80-8.86 12.54-26.86	6.80-8.86 12.54-26.86	6.80-8.86 12.54-26.86	5.52-26.86	4.68-26.86
RCF/FF/FA/FAF127	3	31.33-170.83	31.33-170.83	31.33-170.83	25.30-153.67	25.30-125.37
RCF/FF/FA/FAF157	2		16.85-53.55	16.85-53.55	13.96-43.94	11.92-35.75
RCF/FF/FA/FAF157	3		40.06-267.43	40.06-267.43	32.55-217.62	27.60-178.20

減速器型號 Gear unit size	級 Stages	D225	D250M	D280	D315	D315M-A/B
RCF/FF/FA/FAF107	2	6.22-27.57				
RCF/FF/FA/FAF107	3	31.80-74.52 88.49 101.38-129.97				
RCF/FF/FA/FAF127	2	4.68-26.86	4.68-21.38	4.68-21.38		
RCF/FF/FA/FAF127	3	25.30-125.37	25.30-55.31 75.41-98.95	25.30-55.31 75.41-98.95		
RCF/FF/FA/FAF157	2	11.92-35.75	11.92-28.60	11.92-28.60	11.92-22.16	11.92-16.85
RCF/FF/FA/FAF157	3	27.60-178.20	27.60-68.28 96.53-141.80	27.60-68.28 96.53-141.80	27.60-52.24 96.53-108.49	27.60-40.06

6.3 速比與最大扭矩 6.3 Ratio and Max. Torque

RCF37-57 表中 n_s 是按 $n_e=1400$ 1/min計算

RCF37 200Nm					RCF47 400Nm					RCF57 600Nm							
i	n_s [1/min]	M_{max} [Nm]	F_{Ra} [N]	AD	i	n_s [1/min]	M_{max} [Nm]	F_{Ra} [N]	AD	i	n_s [1/min]	M_{max} [Nm]	F_{Ra} [N]	AD			
3-stage																	
128.51	11	200	4290	AD ₁	190.76	7.3	400	5920	AD ₁	199.70	7.0	600	8200	AD ₂			
117.88	12	200	4290														
100.36	14	200	4290														
86.53	16	200	4290														
80.65	17	200	4290														
70.50	20	200	4290														
66.09	21	200	4290														
58.32	24	200	4290														
54.54	26	200	4290														
51.70	27	200	4290														
47.02	30	200	4290														
2-stage																	
43.83	32	200	4290	AD ₂	65.36	21	400	5920	AD ₂	40.13	35	290	9710	AD ₂			
38.31	37	200	4290														
35.91	39	200	4290														
31.69	44	200	4290														
28.09	50	200	4060														
23.88	59	200	3760														
23.63	59	200	3740		AD ₂	29.32	48	400		5830	AD ₃	34.24	41		500	8670	AD ₃
20.57	68	200	3500														
19.27	73	200	3390														
17.03	82	200	3180														
15.81	89	200	3070														
14.33	98	200	2910														
12.87	109	200	2750														
11.08	126	190	2620														
10.42	134	185	2580														
8.97	156	175	2460														
8.01	175	170	2360														
7.44	188	145	2350														
6.74	208	140	2270														
6.05	231	135	2190														
5.21	269	125	2120														
4.90	286	120	2100														
4.22	332	110	2030														
3.77	372	105	1970														

RCF67-87 表中 n_s 是按 $n_e=1400$ 1/min計算

RCF67 820Nm					RCF77 1500Nm					RCF87 3000Nm				
i	n_s [1/min]	M_{max} [Nm]	F_{Ra} [N]	AD	i	n_s [1/min]	M_{max} [Nm]	F_{Ra} [N]	AD	i	n_s [1/min]	M_{max} [Nm]	F_{Ra} [N]	AD
3-stage														
228.99	6.1	820	10300	AD ₂	281.71	5.0	1500	15700	AD ₂	270.68	5.2	3000	19800	AD ₂
195.39	7.2	820	10300											
170.85	8.2	820	10300											
162.31	8.6	820	10300											
142.40	9.8	820	10300											
120.79	12	820	10300											
109.04	13	820	10300											
95.94	15	820	10300											
90.59	15	820	10300											
79.76	18	820	10300											
67.65	21	820	10300											
61.07	23	820	10300											
53.73	26	820	10300											
50.74	28	820	10300											
43.20	32	820	10300											
39.26	36	780	10700											
34.01	41	740	11000											
2-stage														
36.30	39	820	10300	AD ₂	43.58	32	1500	15700	AD ₃	33.92	41	2610	14600	AD ₃
32.08	44	820	10300											
27.41	51	820	10300											
25.13	56	820	10300											
22.05	63	820	10300											
20.90	67	820	10300											
18.29	77	820	10300											
16.48	85	820	10300											
14.46	97	820	10300											
12.76	110	820	10300											
11.31	124	820	10300											
9.66	145	820	10300											
9.08	154	530	11400											
8.60	163	570	10900											
7.53	186	610	10100											
6.78	206	620	9660											
5.95	235	610	9200											
5.25	267	590	8850											
4.66	300	560	8590											
3.97	353	500	8390											
2-stage														
36.58	38	1110	17900	AD ₃	26.50	53	3000	11100	AD ₃	26.50	53	3000	11100	AD ₃
31.51	44	1380	16500											
28.75	49	1430	16200											
25.50	55	1500	15700											
21.43	65	1500	15700											
19.70	71	1500	15700											
17.49	80	1500	15700											
15.64	90	1500	15700											
14.06	100	1500	15700											
12.20	115	1500	14900											
10.93	128	1500	14200											
9.30	151	1080	13800											
8.26	169	1080	13100											
7.39	189	1080	12500											
6.64	211	1080	12000											
5.76	243	1080	11300											
5.16	271	1080	10700											
4.28	327	1010	10200											
2-stage														
28.78	49	2450	13900	AD ₄	21.32	66	3000	9530	AD ₄	21.32	66	3000	9530	AD ₄
23.68	59	3000	10300											
21.32	66	3000	9530											
19.31	73	3000	8840											
17.12	82	3000	8040											
15.48	90	3000	7390											
13.12	107	3000	6370											
11.46	122	3000	5580											
9.58	146	2880	5050											
8.29	169	1530	8890											
7.35	190	1530	8280											
6.65	211	1530	7790											
5.63	248	1530	7020											
4.92	284	1530	6430											
4.12	340	1460	5980											

RCF127R77,RCF127/R87,RCF157R97 表中 n_s 是按 $n_e=1400$ 1/min計算

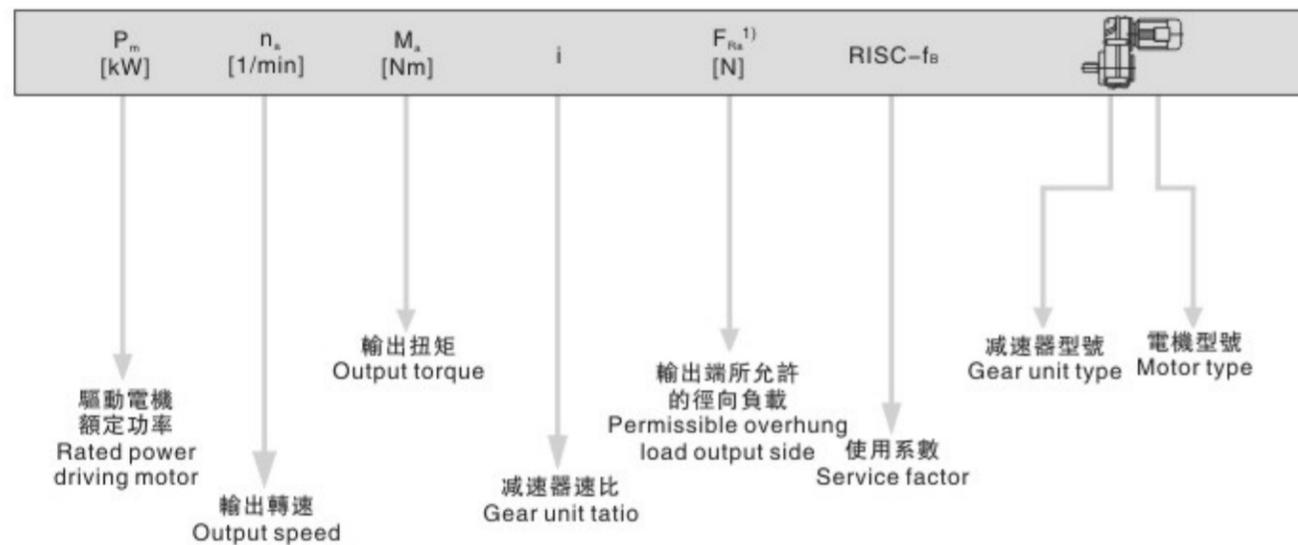
RCF127R77		12000Nm	
i	n_s [1/min]	M_{amax} [Nm]	F_{Ra} [N]
24478	0.06	12000	90000
22323	0.06	12000	90000
19048	0.07	12000	90000
16656	0.08	12000	90000
14722	0.10	12000	90000
12912	0.11	12000	90000
11656	0.12	12000	90000
10191	0.14	12000	90000
8831	0.16	12000	90000
7643	0.18	12000	90000
6715	0.21	12000	90000
5925	0.24	12000	90000
5153	0.27	12000	90000
4533	0.31	12000	90000
3926	0.36	12000	90000
3454	0.41	12000	90000
3031	0.46	12000	90000
2672	0.52	12000	90000
2357	0.59	12000	90000
2038	0.69	12000	90000
1784	0.78	12000	90000
1606	0.87	12000	90000
1390	1.0	12000	90000
1220	1.1	12000	90000
1077	1.3	12000	90000
930	1.5	12000	90000
820	1.7	12000	90000
727	1.9	12000	90000
648	2.2	12000	90000
549	2.6	12000	90000
495	2.8	12000	90000
428	3.3	12000	90000
376	3.7	12000	90000

RCF127R87		12000Nm	
i	n_s [1/min]	M_{amax} [Nm]	F_{Ra} [N]
483	2.9	12000	90000
418	3.3	12000	90000
374	3.7	12000	90000
312	4.5	12000	90000
293	4.8	12000	90000
259	5.4	12000	90000
223	6.3	12000	90000
198	7.1	12000	90000
166	8.4	12000	90000

RCF157R97		18000Nm	
i	n_s [1/min]	M_{amax} [Nm]	F_{Ra} [N]
31434	0.04	18000	100300
26173	0.05	18000	100300
23464	0.06	18000	100300
20212	0.07	18000	100300
17984	0.08	18000	100300
16358	0.09	18000	100300
13751	0.10	18000	100300
12235	0.11	18000	100300
10033	0.14	18000	100300
9021	0.16	18000	100300
8026	0.17	18000	100300
7075	0.20	18000	100300
6295	0.22	18000	100300
5404	0.26	18000	100300
4831	0.29	18000	100300
4130	0.34	18000	100300
3607	0.39	18000	100300
3210	0.44	18000	100300
2780	0.50	18000	100300
2427	0.58	18000	100300
2185	0.64	18000	100300
1944	0.72	18000	100300
1674	0.84	18000	100300
1441	0.97	18000	100300
1308	1.1	18000	100300
1169	1.2	18000	100300
953	1.5	18000	100300
845	1.7	18000	100300
764	1.8	18000	100300
680	2.1	18000	100300
576	2.4	18000	100300
503	2.8	18000	100300
446	3.1	18000	100300
353	4.0	18000	100300
302	4.6	18000	100300
273	5.1	18000	100300
232	6.0	18000	100300
202	6.9	18000	100300
197	7.1	18000	100300

6.4 選型表注釋
6.4 Selection table

選型表的結構
Selection table for geared motors



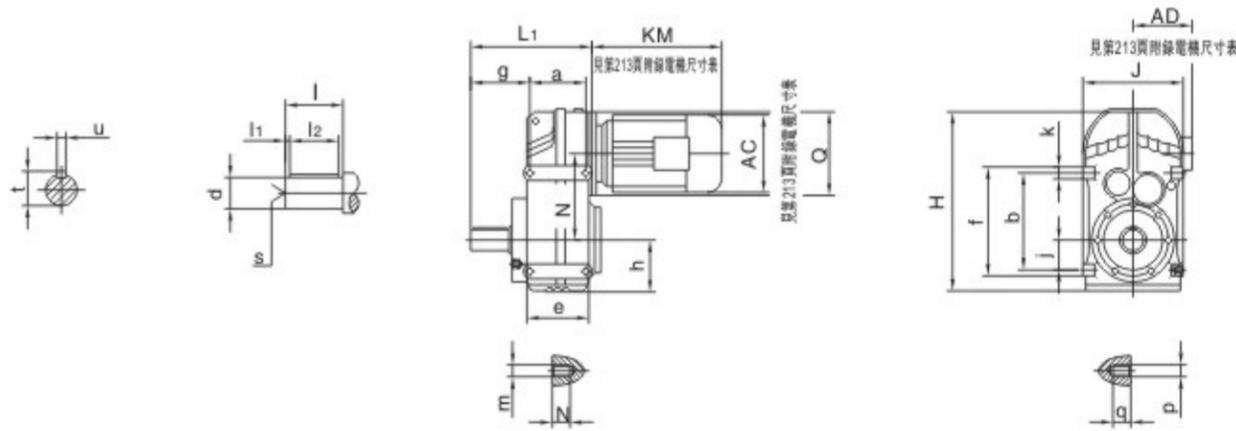
圖例 Cuttine

- ※ 也可用于EEExe 電機。 ※EEXE motor is optional.
- 1) 實心軸底腳安裝減速機的徑向負荷
- 1) Overhung load specified for foot-mounted gear unit with solid shaft

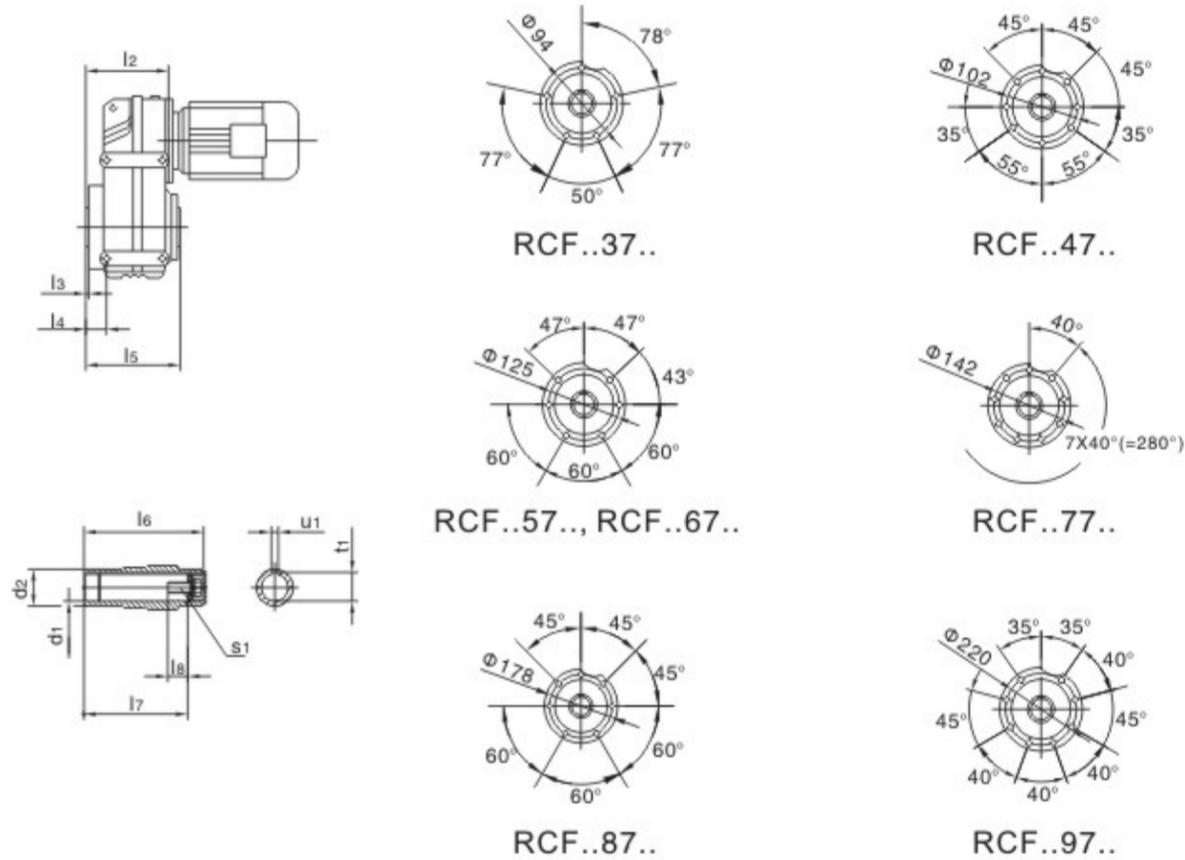
注意: Notice:

對於特殊低輸出轉速驅動 (多級減速電機), 電機功率必須與減速機的最大允許輸出地扭矩相對應。
In drives for particularly low output speeds (multi-stage geared motor), the motor power must belimited according to maximum permitted output torque of the gear unit.

RCF37..~RCF157..



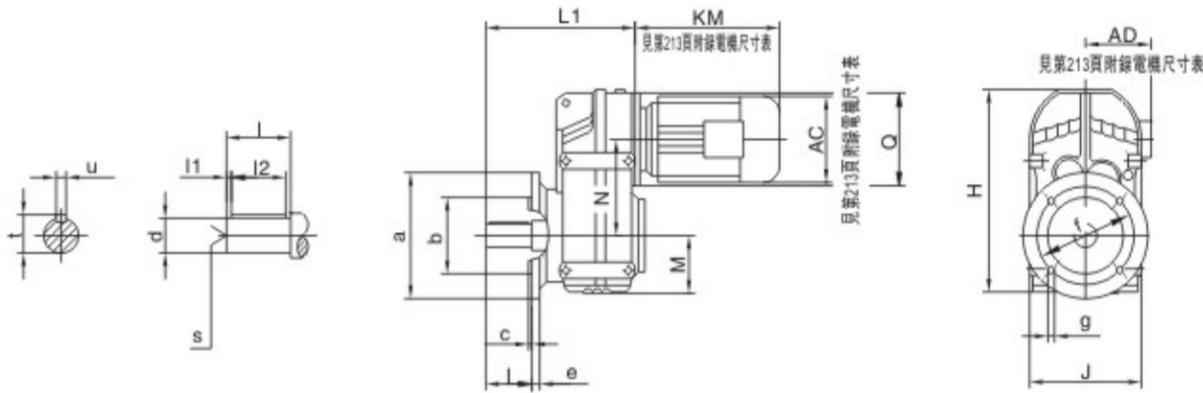
RCFA37B..~RCFA157B..



型號 size	a b	e f	g	h	j	k	m n	P q	軸伸尺寸 Shaft dimension				
									d	l	l ₁ l ₂	S	t u
RCF37.. RCFA37B..	77 115	95 135	72.5	76	31	20	M8 11	M8 11	25k6	50	5 40	M10	28 8
RCF47.. RCFA47B..	93 145	109 165	91	77	43	20	M8 11	M10 15	30k6	60	3.5 50	M10	33 8
RCF57.. RCFA57B..	102 170	126 195	104.5	93	55	25	M12 17	M12 17	35k6	70	7 56	M12	38 10
RCF67.. RCFA67B..	1121 190	131 215	118.5	97	60	25	M12 17	M12 17	40k6	80	5 70	M16	43 12
RCF77.. RCFA77B..	140 240	165 275	137.5	121	70	35	M12 17	M16 26	50k6	100	10 80	M16	53.5 14
RCF87.. RCFA87B..	165 310	195 350	163	152	100	40	M16 26	M16 26	60m6	120	5 110	M20	64 18
RCF97.. RCFA97B..	205 350	240 400	190.5	178	120	50	M16 26	M20 28	70m6	140	7.5 125	M20	74.5 20
RCF107.. RCFA107B..	220 400	260 460	241.5	200	125	60	/ /	M24 36	90m6	170	5 160	M24	95 25
RCF127.. RCFA127B..	270 450	316 520	291	236	142	70	/ /	M30 45	110m6	210	15 180	M24	116 28
RCF157.. RCFA157B..	310 540	364 620	325	286	170	80	/ /	M36 55	120m6	210	5 200	M24	127 32

型號 Model	空心軸尺寸 Hollow shaft dimension								HJ	L1	L2	N	Q
	d1	d2	l ₃ l ₄	l ₅	l ₆ l ₇	l ₈	s ₁	t ₁ u ₁					
RCF37.. RCFA37B..	30H7	45	2.5 22.5	123	120 105	17	M10X25	33.3 8	252 165	160	110	112	120
RCF47.. RCFA47B..	35H7	50	3 31	153	150 132	22	M10X25	38.3 10	269 180	193	133	128.1	120
RCF57.. RCFA57B..	40H7	55	3 33.5	170	166 142	29	M16X40	43.3 12	317 200	221	150	136	160
RCF67.. RCFA67B..	40H7	55	3.5 37	184	180 156	29	M16X40	43.3 12	343 212	242	161	159.5	160
RCF77.. RCFA77B..	50H7	70	4 36.5	213	210 183	32	M16X45	53.8 14	426 270	294	193	200	200
RCF87.. RCFA87B..	60H7	85	4 43	243	240 210	36	M20X50	64.4 18	531 330	344	224	246.7	250
RCF97.. RCFA97B..	70H7	95	4 48.5	303	300 270	34	M20X50	74.9 20	623 400	416	274	285	300
RCF107.. RCFA107B..	90H7	118	2.5 69.5	353	350 313	40	M24X60	95.4 25	717 450	484	312	332.4	350
RCF127.. RCFA127B..	100H7	135	2.5 79.25	413	410 373	38	M24X60	106.4 28	856 530	585	373	382.6	450
RCF157.. RCFA157B..	120H7	155	7 118	503	500 460	36	M24X60	127.4 32	1021 660	662	455	447	550

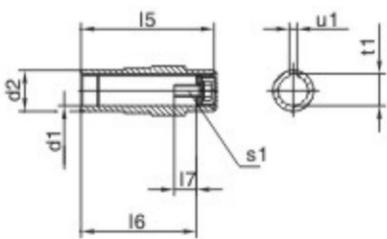
RCFF37..~RCFF157..



RCFAF37..~RCFAF157



法蘭型式
flange form



型號 Model	法蘭 型式 flange form	a b	c e	f g	軸伸尺寸 Shaft dimension				空心軸尺寸 Hollow Shaft dimension					H J	L1 L2	M N Q
					d l	l1 l2	s	t u	d1 d2	l3 l4	l5 l6	l7 l8	t1 u1			
RCFF37.. RCFAF37..	Fig.1	160	3.5	130	25k6	5	M10	28	30H7	24	120	17	33.3	252	184	76
		110j6	10	9	50	40		8	45	123	105	M10X25	8	165	138	112 120
RCFF47.. RCFAF47..	Fig.1	200	3.5	165	30k6	3.5	M10	33	35H7	25	150	22	38.3	269	218	77
		130j6	12	11	60	50		8	50	153	132	M10X25	10	180	162	128.1 120
RCFF57.. RCFAF57..	Fig.1	250	4	215	35k6	7	M12	38	40H7	23.5	166	29	43.3	317	243	93
		180j6	15	13.5	70	56		10	55	170	142	M16X40	12	200	177	136 160
RCFF67.. RCFAF67..	Fig.1	250	4	215	40k6	5	M16	43	40H7	23	180	29	43.3	343	264	97
		180j6	15	13.5	80	70		12	55	184	156	M16X40	12	212	188	159.5 160
RCFF77.. RCFAF77..	Fig.1	300	4	265	50k6	10	M16	53.5	50H7	37	210	32	53.8	426	330	121
		230h6	16	13.5	100	80		14	70	213	183	M16X45	14	270	234	200 200
RCFF87.. RCFAF87..	Fig.1	350	5	300	60m6	5	M20	64	60H7	30	240	36	64.4	531	374	152
		250h6	18	17.5	120	110		18	85	243	210	M20X50	18	330	259	246.7 250
RCFF97.. RCFAF97..	Fig.2	450	5	400	70m6	7.5	M20	74.5	70H7	41.5	300	34	74.9	623	456	178
		350h6	22	17.5	140	125		20	95	303	270	M20X50	20	400	321	285 300
RCFF107.. RCFAF107..	Fig.2	450	5	400	90m6	5	M24	95	90H7	41	350	40	95.4	717	523	200
		350h6	22	17.5	170	160		25	118	353	313	M24X60	25	450	358	332.4 350
RCFF127.. RCFAF127..	Fig.2	550	5	500	110m6	15	M24	116	100H7	51	410	38	106.4	856	643	236
		450h6	25	17.5	210	180		28	135	413	373	M24X60	28	530	426	382.6 450
RCFF157.. RCFAF157..	Fig.2	660	6	600	120m6	5	M24	127	120H7	60	500	36	127.4	1021	725	286
		550h6	28	22	210	200		32	155	503	460	M24X60	32	660	521	447 550

RCR..

RCF..

RCK..

RCS..

RCR..

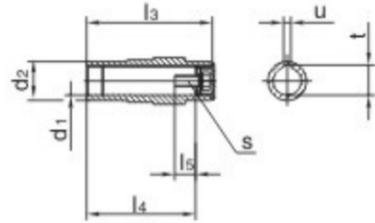
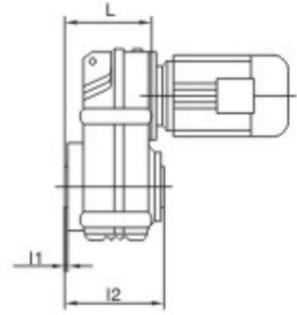
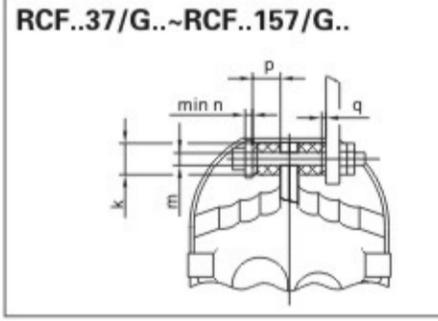
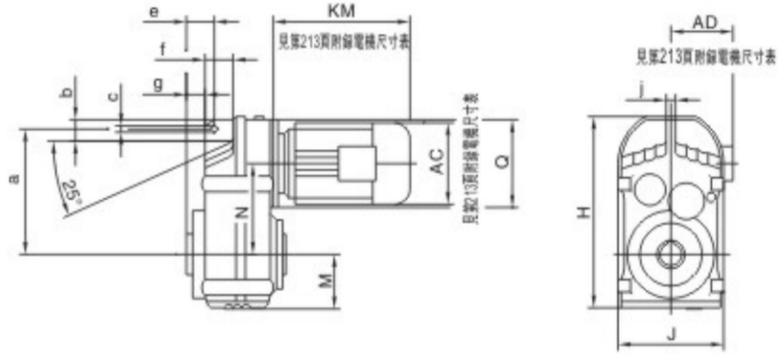
RCF..

RCK..

RCS..

RCF系列平行軸-斜齒輪減速電機

RCFA37..~RCFA157..



RCR..

RCF..

RCK..

RCS..

RCF系列平行軸-斜齒輪減速電機

型號 Model	a b	c e	f g	空心軸尺寸 Hollow Shaft dimension					扭矩臂尺寸 torque arm form			H J i	L	M	N Q	
				d1 d2	l1 l2	l3 l4	l5 s	t u	K M N	p q						
RCFA37.. RCF..37/G..	158	14	46	30H7	0.5	120	17	33.3	40	20	252	110	76	112		
	30	31.5	15	45	123	105	M10X25	8	12.5	1	172					
RCFA47.. RCF..47/G..	170	14	64	35H7	1	150	22	38.3	40	20	269	133	77	128.1		
	22	32	12	50	153	132	M10X25	10	12.5	1.8	189					
RCFA57.. RCF..57/G..	198	14	60	40H7	1	166	29	43.3	40	20	317	150	93	136		
	31	40.5	19.5	55	170	142	M16X40	12	12.5	2.4	210					
RCFA67.. RCF..67/G..	218	14	65	40H7	1	180	29	43.3	40	20	343	161	97	159.5		
	40	41	21	55	184	156	M16X40	12	12.5	3	223					
RCFA77.. RCF..77/G..	278	22	69	50H7	1	210	32	53.8	60	30	426	193	121	200		
	49	50	28	70	213	183	M16X45	14	21	3.2	282					
RCFA87.. RCF..87/G..	346	22	79	60H7	1	240	36	64.4	60	30	531	224	152	246.7		
	57	62	32	85	243	210	M20X50	18	21	4.5	336					
RCFA97.. RCF..97/G..	395	26	104	70H7	1	300	34	74.9	80	40	623	274	178	285		
	88	70	34	95	303	270	M20X50	20	25	5	414					
RCFA107.. RCF..107/G..	485	26	100	90H7	2.5	350	40	95.4	80	40	717	312	200	332.4		
	108	88	57	118	353	313	M24X60	25	25	6	456					
RCFA127.. RCF..127/G..	550	33	125	100H7	2.5	410	38	106.4	100	60	856	373	236	382.6		
	138	110	66	135	413	373	M24X60	28	32	9	530					
RCFA157.. RCF..157/G..	660	33	140	120H7	7	500	36	127.4	120	60	1021	455	286	447		
	170	150	98	155	503	460	M24X60	32	32	9	660					

RCF..

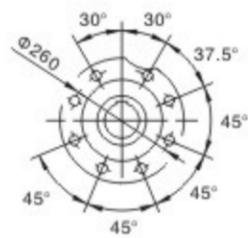
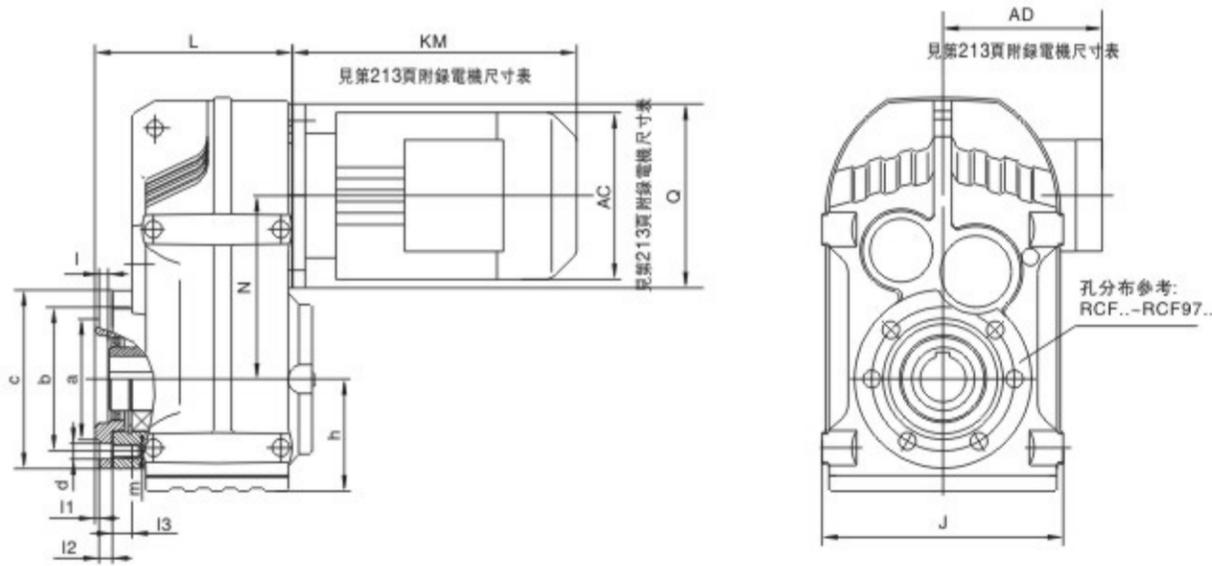
RCF..

RCK..

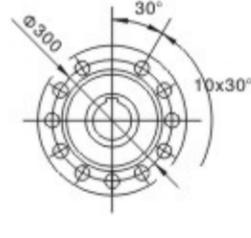
RCS..

RCF系列平行軸-斜齒輪減速電機

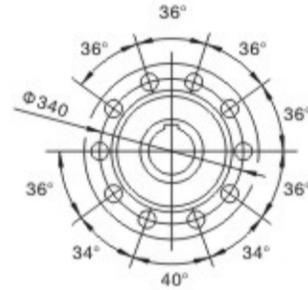
RCFAZ37..~RCFAZ157..



RCFAZ107..



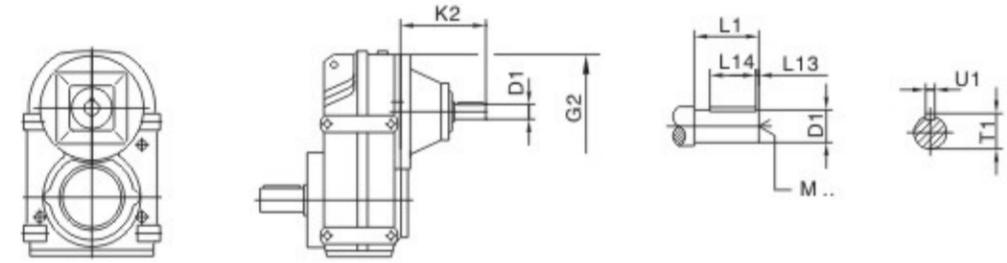
RCFAZ127..



RCFAZ157..

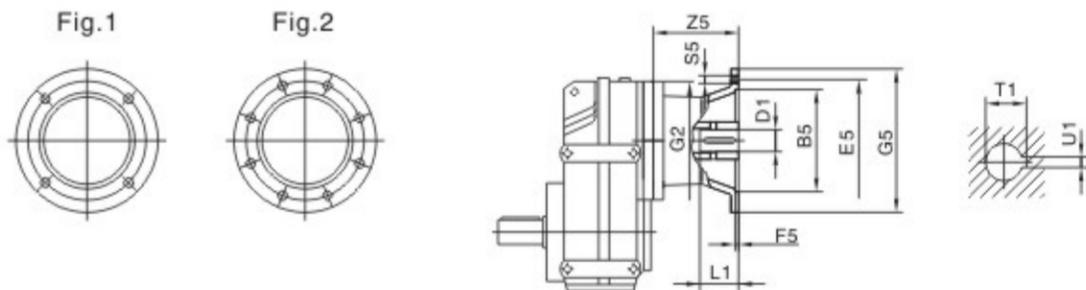
型號 Model	a	b	c	d	h	J	L	I	I1	I2	I3	m	N	Q
RCFAZ37..	80j6	94	110	9	76	165	122	9	3	11.5	11	M8	112	120
RCFAZ47..	80j6	102	120	9	77	180	144	8	3	11	11	M8	128.1	120
RCFAZ57..	105j6	125	155	13.5	93	200	162	9	3.5	12	17	M12	136	160
RCFAZ67..	105j6	125	155	13.5	97	212	173	8.5	3.5	12	17	M12	159.5	160
RCFAZ77..	125j6	142	170	13.5	121	270	206	10	3.5	14	17	M12	200	200
RCFAZ87..	155j6	178	215	17.5	152	330	239	11	4	15	26	M16	246.7	250
RCFAZ97..	180j6	220	260	17.5	178	400	292	14	4	18	26	M16	285	300
RCFAZ107..	210j6	260	304	22	200	450	312	8	4	22	28	M20	332.4	350
RCFAZ127..	250j6	300	350	22	236	530	377.5	5	5	30	28	M20	382.6	450
RCFAZ157..	290j6	340	400	26	286	660	455	14	5	28	36	M24	447	550

RCF..AD



減速箱規格 Gear unit type	聯接盤規格 Motor adcopator	G2	K2	D1	L1	L13	L14	T1	U1	M
RCF..37	AD1	120	102	16	40	4	32	18	5	M5
			130	19	40	4	32	21.5	6	M6
RCF..47	AD2	160	123	19	40	4	32	21.5	6	M6
			159	24	50	5	40	27	8	M8
RCF..77	AD2	200	116	19	40	4	32	21.5	6	M6
	AD3		151	24	50	5	40	27	8	M8
	AD4		224	38	80	5	70	41	10	M12
RCF..87	AD2	250	111	19	40	4	32	21.5	6	M6
	AD3		156	28	60	5	50	31	8	M10
	AD4		219	38	80	5	70	41	10	M12
	AD5		292	42	110	10	70	45	12	M16
RCF..97	AD3	300	151	28	60	5	50	31	8	M10
	AD4		214	38	80	5	70	41	10	M12
	AD5		287	42	110	10	70	45	12	M16
	AD6		327	48	110	10	80	51.5	14	M16
RCF..107	AD3	350	145	28	60	5	50	31	8	M10
	AD4		208	38	80	5	70	41	10	M12
	AD5		281	42	110	10	70	45	12	M16
	AD6		321	48	110	10	80	51.5	14	M16
RCF..127	AD4	450	193	38	80	5	70	41	10	M12
	AD5		266	42	110	10	70	45	12	M16
	AD6		306	48	110	10	80	51.5	14	M16
	AD7		300	55	110	10	90	59	16	M20
RCF..157	AD8	550	383	70	140	15	110	74.5	20	M20
	AD5		258	42	110	10	70	45	12	M16
	AD6		298	48	110	10	80	51.5	14	M16
	AD7		292	55	110	10	90	59	16	M20
	AD8		374	70	140	15	110	74.5	20	M20

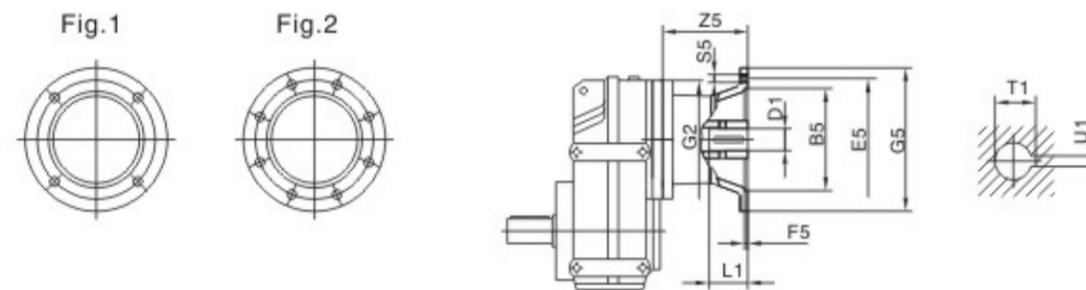
RCF..AM



減速箱規格 Gear unit type	聯接盤規格 Motor adcopator	Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1					
RCF..37 RCF..47	AM63	1	95	115	3.5	120	140	M8	72	11	23	12.8	4					
	AM71 ¹⁾		110	130			14			30	16.3	5						
	AM80 ¹⁾		130	165			4.5			200	M10	106	19	40	21.8	6		
	AM90 ¹⁾						24			50	27.3	8						
RCF..57 RCF..67	AM63	1	95	115	3.5	160	140	M8	66	11	23	12.8	4					
	AM71		110	130			14			30	16.3	5						
	AM80		130	165			4.5			200	M10	99	19	40	21.8	6		
	AM90				24		50	27.3	8									
	AM100 ¹⁾		180	215	5		250	M12	134	28	60	31.3	8					
	AM112 ¹⁾																	
RCF..77	AM63	1	95	115	3.5	200	140	M8	60	11	23	12.8	4					
	AM71		110	130			14			30	16.3	5						
	AM80		130	165			4.5			200	M10	92	19	40	21.8	6		
	AM90				24		50	27.3	8									
	AM100 ¹⁾		180	215	5		250	M12	126	28	60	31.3	8					
	AM112 ¹⁾																	
	AM132S ¹⁾ AM132M ¹⁾ AM132ML ¹⁾		230	265	5		300		179	38	80	41.3	10					
RCF..87	AM80	1	130	165	4.5	250	200	M10	87	19	40	21.8	6					
	AM90						24			50	27.3	8						
	AM100		180	215			5			250	M12	121	28	60	31.3	8		
	AM112																	
	AM132S AM132M AM132ML		230	265	300		174	38	80	41.3	10							
	AM160 ¹⁾ AM180 ¹⁾		250	300	6		350	M16	232	42 48	110	45.3 51.8	12 14					
	RCF..97		AM100	1	180		215	5	300	250	M12	116	28	60	31.3	8		
AM112																		
AM132S AM132M		230	265		300	169	38			80							41.3	10
AM132ML																		
AM160		250	300		6	350	M16	227		42	110	45.3	12					
AM180										48			51.8	14				
AM200		300	350		7	400				268	55		59.3	16				
AM225 ¹⁾	350	400	450	283		60		140	64.4	18								

1) 如果安裝在RCF系列底腳安裝方式的減速機上，請檢查尺寸G5/2，它可能已突出平面。
Dimension G5/2 May protrude past foot mounting surface if mounted on RCF foot - mounted gear unit, please check.

RCF..AM

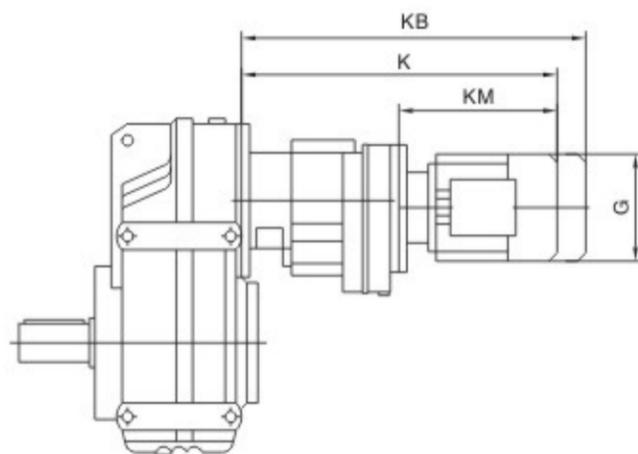


減速箱規格 Gear unit type	聯接盤規格 Motor adcopator	Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1											
RCF..107	AM100	1	180	215	5	350	250	M12	110	28	60	31.3	8											
	AM112																							
	AM132S AM132M AM132ML		230	265			300	163	38	80	41.3	10												
	AM160 AM180		250	300			6	350	M16	221	42 48	110	45.3 51.8	12 14										
	AM200 AM225		300 350	350 400			7	400 450		262 277	55 60		59.3 64.4	16 18										
	RCF..127		AM132S AM132M AM132ML	1			230	265	5	450	300	M12	148	38	80	41.3	10							
AM160 AM180		250	300		6	350												M16	206	42 48	110	45.3 51.8	12 14	
AM200 AM225		300 350	350 400		7	400 450													247 262	55 60		59.3 64.4	16 18	
AM250 AM280		450 500	500	7	550	M16	336	65 75	140		69.4 79.9	18 20												
RCF..157		AM160 AM180 AM200 AM225 AM250 AM280	1	250	300		6	550	350		M16	198	42 48	110	45.3 51.8	12 14								
																	230	265	300	169	38	80	41.3	10
																	254	60		64.4	18			
			AM250 AM280	450 500	500	7	550		328		65 75	140	69.4 79.9	18 20										

RCF.. RCK.. RCS.. RCF.. RCK.. RCS.. RCF.. RCK.. RCS.. RCF.. RCK.. RCS..

RCF系列平行軸-斜齒輪減速電機

RCF系列平行軸-斜齒輪減速電機

RCF..R..


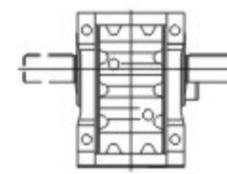
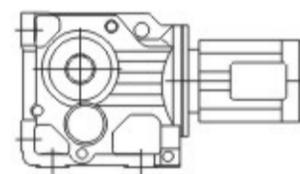
減速箱規格 Gear unit type	電機規格 Motor type	G	K	KB	KM
RCF..37R17 RCF..47R17	D63..	155	368	425	193
	D71D	155	369	433	194
	D80..	155	419	483	244
RCF..57R37	D63..	155	400	457	235
	D71D	155	401	465	236
RCF..67R37	D63..	155	401	457	235
	D71D	155	401	465	236
	D80..	155	451	515	286
	D90..	210	451	536	286
RCF..77R37	D63..	155	392	449	235
	D71D	155	393	457	236
	D80..	155	443	507	286
RCF..87R57	D63..	155	445	502	229
	D71D	155	445	509	229
	D80..	155	495	559	279
	D90..	210	495	580	279
RCF..97R57	D100M	210	545	630	329
	D100L	210	565	650	249
	D63..	155	440	497	229
	D71D	155	440	504	229
	D80..	155	490	554	279
RCF..107R77	D90..	210	510	595	299
	D100M	210	540	625	329
	D100L	210	560	645	349
	D112M	240	575	655	364
	D63..	155	470	527	223
	D71D	155	470	534	223
	D80..	155	520	584	273
	D90..	210	518	603	271
	D100M	210	568	653	321
	D100L	210	588	673	341
RCF..127R77	D112M	240	602	682	355
	D132S	240	647	727	400
	D132M	285	699	811	452
	D132ML	285	719	831	472
	D160M	330	749	871	512
	D63..	155	455	512	223
	D71D	155	455	519	223
	D80..	155	505	569	273
RCF..127R87	D90..	210	503	588	271
	D100M	210	553	638	321
	D100L	210	573	658	341
	D112M	240	587	667	355
	D132S	240	632	712	40
	D132M	285	684	796	452
	D132ML	285	704	816	472
	D160M	330	734	846	502
	D90..	210	547	632	267
	D100M	210	597	682	317
RCF..157R97	D100L	210	617	702	337
	D112M	240	630	710	350
	D132S	240	675	755	395
	D132M	285	727	839	447
	D132ML	285	747	859	467
	D160M	330	777	889	497
	D160L	330	824	980	544
	D180..	380	896	1052	616
	D80..	155	586	650	261
	D90..	210	586	671	261
RCF..157R97	D100M	210	636	721	311
	D100L	210	656	741	331
	D112M	240	670	750	345
	D132S	240	715	795	390
	D132M	285	767	879	442
	D132ML	285	787	899	462
	D160M	330	817	929	492
	D160L	330	864	1020	539
	D180..	380	936	1092	611
	D200..	420	1024	1180	669

注：上表中電機尺寸為參考尺寸，因空間限制對尺寸有嚴格要求時請向我公司諮詢。
 Notes: The dimension of motor in the above table is only for reference.
 If you have special require, please consult us.

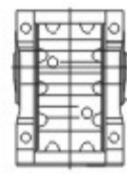
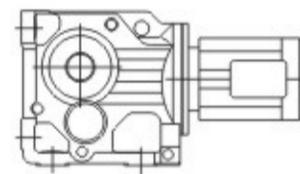
**7. RCK 斜齒輪 – 傘齒輪減速電機
 RCK Helical – Bevel Geared Motor**
7.1 設計方案
7.1 Versions of geared motors

斜齒輪 – 傘齒輪減速電機有以下設計方案

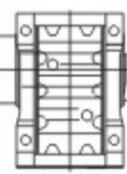
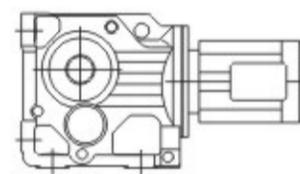
The following types of helical – bevel geared motor can be supplied:



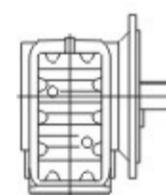
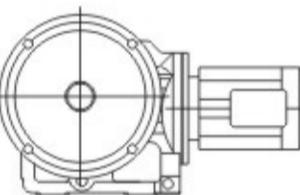
RCK..D..
 底腳安裝斜齒輪--傘齒輪減速電機
 Foot – mounted helical – bevel geared motor



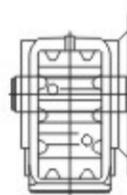
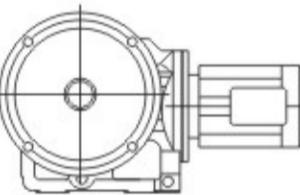
RCKA..B D..
 底腳空心軸安裝斜齒輪--傘齒輪減速電機
 Foot – mounted helical – bevel geared motor
 with hollow shaft.
RCKV..B D..
 底腳花鍵空心軸(DIN5480)安裝斜齒輪--傘齒輪
 減速電機
 Foot – mounted helical – bevel geared motor with
 hollow shaft and splined hollow shaft to DIN 5480.



RCKH..B D..
 底腳空心軸鎖緊盤安裝斜齒輪--傘齒輪減速電機
 Foot – mounted helical – bevel geared motor
 with hollow shaft and shrink disk

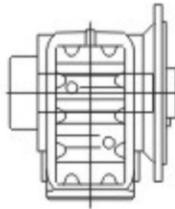
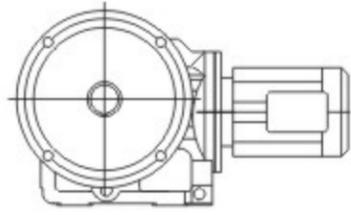


RCKF..D..
 B5 法蘭安裝斜齒輪--傘齒輪減速電機
 Helical – bevel geared motor in B5 flange – mounted
 version

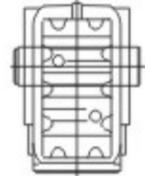
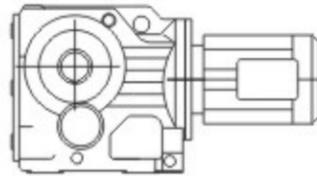


RCKAF..D..
 B5 法蘭空心軸安裝斜齒輪--傘齒輪減速電機
 Helical – bevel geared motor in B5 flange – mounted
 version with hollow shaft.

RCKV..D..
 B5 法蘭花鍵空心軸(DIN5480)安裝斜齒輪--
 傘齒輪減速電機
 Helical – bevel geared motor in B5 flange – mounted
 version with hollow shaft and splined hollow shaft
 to DIN 5480.

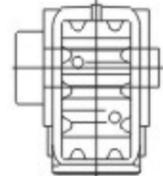
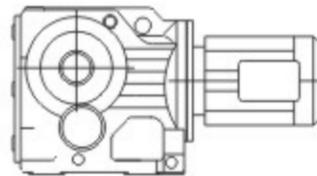


RCKHF..D..
B5 法蘭空心軸鎖緊盤安裝斜齒輪--傘齒輪減速電機
Helical - bevel geared motor in B5 flange - mounted version with hollow shaft and shrink disk.

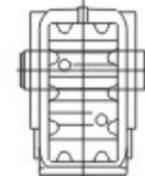
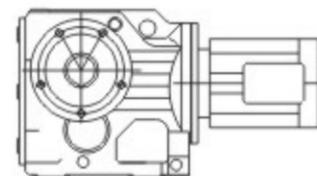


RCKA..D..
空心軸安裝斜齒輪--傘齒輪減速電機
Helical - bevel geared motor with hollow shaft

RCKV..D..
花鍵空心軸(DIN 5480)安裝斜齒輪--傘齒輪減速電機
Helical - bevel geared motor with hollow shaft and splined hollow shaft to DIN 5480.

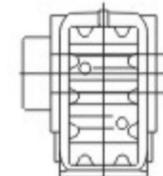
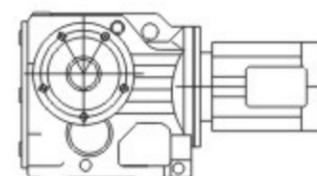


RCKH..D..
空心軸鎖緊盤安裝斜齒輪--傘齒輪減速電機
Helical - bevel geared motor with hollow shaft and shrink disk



RCKAZ..D..
B14 法蘭空心軸安裝斜齒輪--傘齒輪減速電機
Helical - bevel geared motor in B14 flange - mounted version with hollow shaft

RCKVZ..D..
B14 法蘭花鍵空心軸(DIN 5480)安裝斜齒輪--傘齒輪減速電機
Helical - bevel geared motor in B14 flange - mounted version with hollow shaft and splined hollow to DIN 5480.



RCKHZ..D..
B14 法蘭空心軸鎖緊盤安裝斜齒輪--傘齒輪減速電機
Helical - bevel geared motor in B14 flange - mounted version with hollow shaft and shrink disk.

7.2 可行的組合方式 7.2 Type of Combination

以下是斜齒輪 - 傘齒輪減速機與交流 (帶制動) 電機的組合列表。表中給出了每種組合的速比範圍。
The below is combination table between gear box and electro motor in each list the ratio range.

減速器型號 Gear unit size	級 Stages	D63 D71	D80	D90	D100	D112	D132S	D132M
RCK/KF/KA/KAF37	3	5.36-106.38	5.36-83.69	5.36-24.99 29.96-72.54	5.36-10.49 13.08-20.19 29.96-58.60			
RCK/KF/KA/KAF47	3	7.36-11.77 13.65-31.30 39.61-131.87	5.81-104.37	5.81-90.86	5.81-21.81 25.91 35.39-63.30 75.20			
RCK/KF/KA/KAF57	3	9.59-11.92 19.34-35.70 48.89-145.14	7.55-11.92 15.22-123.85	6.57-108.29	6.57-90.26	6.57-30.28 38.49-76.56		
RCK/KF/KA/KAF67	3	10.63-12.48 19.30-35.62 48.77-144.79	8.37-12.48 15.19-123.54	7.28-108.03	7.28-90.04	7.28-30.22 38.39-76.37	7.28-24.00 38.39-60.66	7.28-24.00 38.39-60.66
RCK/KF/KA/KAF77	3	25.62-38.39 64.75-192.18	10.84-12.36 20.25-38.39 51.18-154.02	7.24-135.28	7.24-113.56	7.24-97.05	7.24-30.89 40.04-78.07	7.24-30.89 40.04-78.07
RCK/KF/KA/KAF87	3		27.88-31.39 70.46-197.37	11.17 16.00 19.45-31.39 49.16-174.19	8.29-11.17 14.45-147.32	8.29-11.17 14.45-126.91	7.21-102.71	7.21-102.71
RCK/KF/KA/KAF97	3			24.75-38.30 62.55-176.05	18.96-38.30 47.93-176.05	18.96-38.30 47.93-153.21	8.71-123.93	8.71-123.93
RCK/KF/KA/KAF107	3			13.43 22.62-29.00 32.69	13.43 22.62-29.00 32.69	13.43 22.62-29.00 32.69	8.69-29.00 32.69-143.47	8.69-29.00 32.69-143.47
RCK/KF/KA/KAF127	3							12.79 21.15-36.25 47.82-146.07

減速器型號 Gear unit size	級 Stages	D132ML	D160M	D160L	D180	D200
RCK/KF/KA/KAF77	3	7.24-23.08 40.04-58.34	7.24-23.08 40.04-58.34			
RCK/KF/KA/KAF87	3	7.21-79.34	7.21-79.34	7.21-79.34	7.21-14.45 17.42-24.92 36.52-63.00	
RCK/KF/KA/KAF97	3	8.71-96.80	8.71-96.80	8.71-96.80	8.71-30.82 41.87-77.89	8.71-24.75 41.87-62.55
RCK/KF/KA/KAF107	3	8.69-112.41	8.69-112.41	8.69-112.41	8.69-90.96	8.69-31.28 37.00-73.30
RCK/KF/KA/KAF127	3	10.74-12.79 17.77-136.14	10.74-12.79 17.77-136.14	10.74-12.79 17.77-136.14	8.68-110.18	8.68-89.89
RCK/KF/KA/KAF157	3		18.37-31.30 46.79-150.41	18.37-31.30 46.79-150.41	14.92-122.39	12.65-100.22
RCK/KH167	3		24.52-32.25 51.77-164.50	24.52-32.25 51.77-164.50	20.32-32.25 42.89-134.99	17.34-109.83
RCK/KH187	3		33.23-42.51 88.00-179.86	33.23-42.51 88.00-179.86	27.92-42.51 73.96-179.86	17.18-179.86

減速器型號 Gear unit size	級 Stages	D225	D250M	D280	D315	D315M_A/B
RCK/KF/KA/KAF107	3	8.69-31.28 37.00-73.30				
RCK/KF/KA/KAF127	3	8.68-89.89	8.68-31.37 40.19-70.95	8.68-31.37 40.19-70.95		
RCK/KF/KA/KAF157	3	12.65-100.22	12.65-79.75	12.65-79.75	12.65-23.95 38.02-61.02	12.65-18.37 38.02-46.79
RCK/KH167	3	17.34-109.83	17.34-87.86	17.34-87.86	17.34-68.07	17.34-24.52 36.61-51.77
RCK/KH187	3	17.18-179.86	17.18-144.59	17.18-144.59	17.18-112.60	17.18-33.23 45.50-88.00

Table with 6 columns: Output speed, Output torque, Ratio, Permitted overhung load, Service factor, Model. Contains data for 3.0kW and 4.0kW RCK series.

Table with 6 columns: Output speed, Output torque, Ratio, Permitted overhung load, Service factor, Model. Contains data for 3.0kW RCK series.

Table with 6 columns: Output speed, Output torque, Ratio, Permitted overhung load, Service factor, Model. Contains data for 3.0kW and 4.0kW RCK series.

Table with 6 columns: Output speed, Output torque, Ratio, Permitted overhung load, Service factor, Model. Contains data for 4.0kW RCK series.

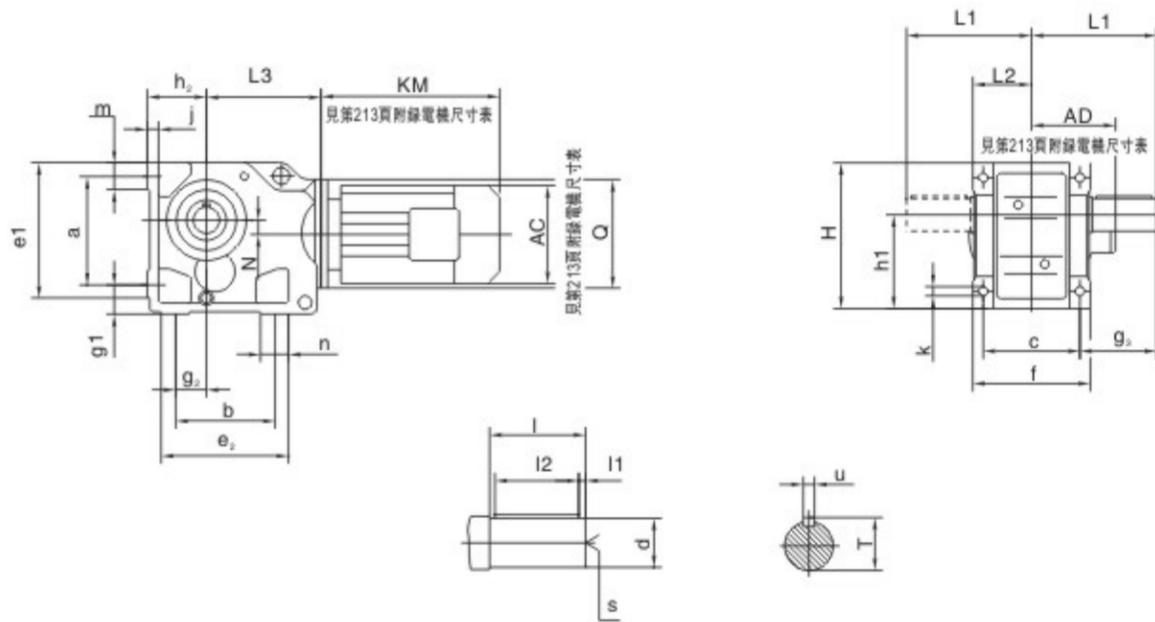
Table with columns: 輸出轉速 (Output speed), 輸出轉矩 (Output torque), 傳動比 (Ratio), 徑向負荷 (Permitted overhung load), 使用系數 (Service factor), 型號 (Model). Includes sections for 18.5kW, 22kW, and 30kW.

Table with columns: 輸出轉速 (Output speed), 輸出轉矩 (Output torque), 傳動比 (Ratio), 徑向負荷 (Permitted overhung load), 使用系數 (Service factor), 型號 (Model). Includes sections for 22kW and 30kW.

Table with columns: 輸出轉速 (Output speed), 輸出轉矩 (Output torque), 傳動比 (Ratio), 徑向負荷 (Permitted overhung load), 使用系數 (Service factor), 型號 (Model). Includes sections for 22kW, 30kW, and 37kW.

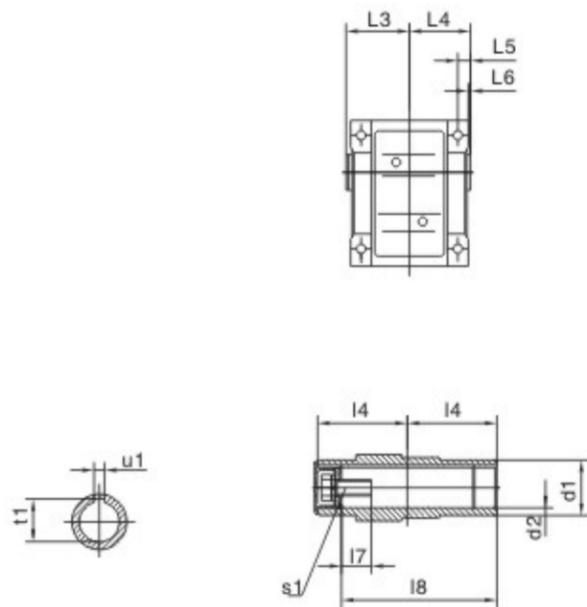
Table with columns: 輸出轉速 (Output speed), 輸出轉矩 (Output torque), 傳動比 (Ratio), 徑向負荷 (Permitted overhung load), 使用系數 (Service factor), 型號 (Model). Includes sections for 30kW and 37kW.

RCK37..~RCK157..



型號 size	a b c	e ₁ e ₂ f	g ₁ g ₂ g ₃	h ₁ h ₂	j	k	m n	軸伸尺寸 Shaft dimension				
								d	l	l ₁ l ₂	S	t u
RCK37..	115 110 100	150 143 120	32 28 60	100-0.5 63-0.5	16	11	37 38	25k6	50	5 40	M10	28 8
RCK47.. RCKA47B..	130 130 120	170 162 145	37 35 75	112-0.5 71-0.5	18	11	37 32	30k6	60	3.5 50	M10	33 8
RCK57.. RCKA57B..	150 130 130	190 172 157	45 30 88	132-0.5 80-0.5	21	13.5	43 40	35k6	70	7 56	M12	38 10
RCK67.. RCKA67B..	160 120 140	203 170 170	45 30 101	140-0.5 90-0.5	24	13.5	43 45	40k6	80	5 70	M16	43 12
RCK77.. RCKA77B..	200 150 165	263 208 200	55 40 123.5	180-0.5 112-0.5	27	17.5	55 55	50k6	100	10 80	M16	53.5 14
RCK87.. RCKA87B..	233 180 180	305 260 230	70 55 150	212-0.5 132-0.5	32	22	67 75	60m6	120	5 110	M20	64 18
RCK97.. RCKA97B..	295 240 240	372 294 290	75 75 171	265-1 160-0.5	36	26	82 60	70m6	140	7.5 125	M20	74.5 20
RCK107.. RCKA107B..	360 280 270	448 380 340	95 95 212	315-1 200-0.5	40	33	98 100	90m6	170	5 160	M24	95 25
RCK127.. RCKA127B..	420 350 330	526 440 400	110 115 253	375-1 225-0.5	45	39	111 100	110m6	210	15 180	M24	116 28
RCK157.. RCKA157B..	500 380 420	634 480 500	130 140 247	450-1 280-1	50	39	130 100	120m6	210	5 200	M24	127 32

RCKA37B..~RCKA157B..

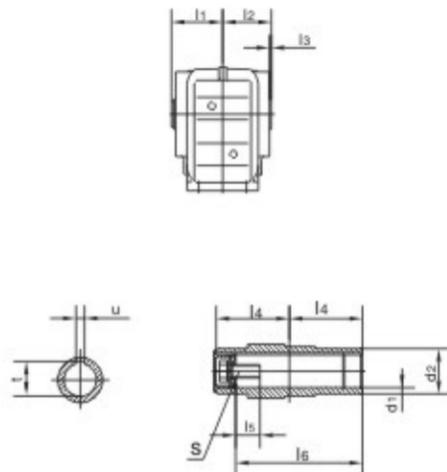
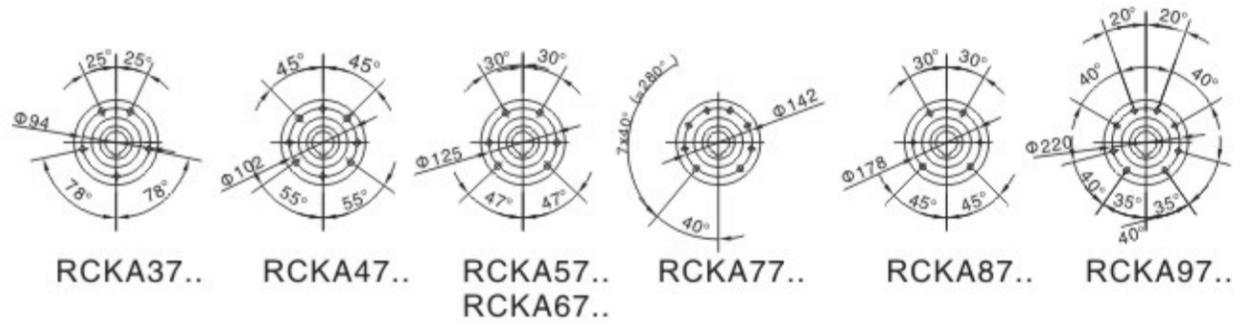
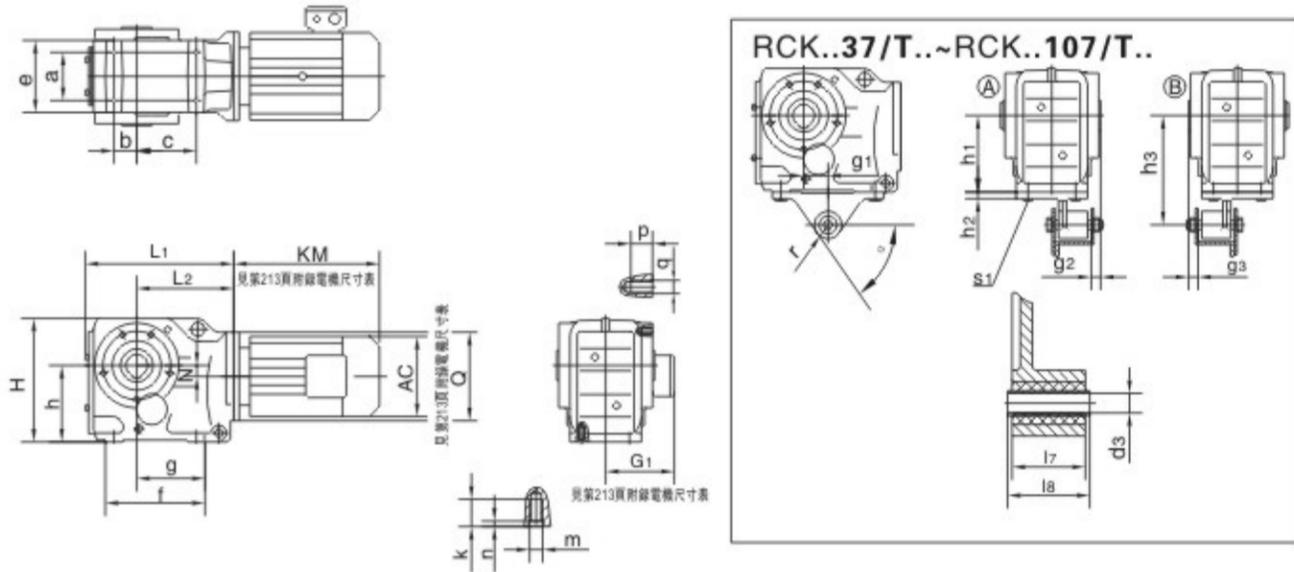


型號 size	空心軸尺寸 hollow shaft dimension							H	L ₁ L ₂	L ₃	N	Q
	d ₁	d ₂	L ₃ L ₄	L ₅ L ₆	l ₁ l ₂	s ₁	t ₁ u ₁					
RCK37..	-	-	-	-	-	-	-	165	110 60	139	8.5	120
RCK47.. RCKA47B..	35 ^{H7}	50	78 75	15 3	22 132	M12x30	38.3 10	185	135 72	166	7.2	160
RCK57.. RCKA57B..	40 ^{H7}	55	86 83	18 3	29 142	M16x40	43.3 12	217	153 80	173	13.1	160
RCK67.. RCKA67B..	40 ^{H7}	55	93 90	20 3.5	29 156	M16x40	43.3 12	228	171 86.5	179	20	160
RCK77.. RCKA77B..	50 ^{H7}	70	108 105	22.5 4	32 183	M16x45	53.8 14	288	206 101	202	31.3	200
RCK87.. RCKA87B..	60 ^{H7}	85	123 120	30 4	36 210	M20x50	64.4 18	340	240 116	257	25.9	250
RCK97.. RCKA97B..	70 ^{H7}	95	153 150	30 4	34 270	M20x50	74.9 20	417	291 146	277	32.3	300
RCK107.. RCKA107B..	90 ^{H7}	118	178 175	40 2.5	40 313	M24x60	95.4 25	503	347 175	341	52	350
RCK127.. RCKA127B..	100 ^{H7}	135	208 205	40 2.5	38 373	M24x60	106.4 28	592	418 203	390	53	450
RCK157.. RCKA157B..	120 ^{H7}	155	253 250	40	36 460	M24x60	127.4 32	705	457 250	426	71.7	550

RCK系列斜齒輪-傘齒輪減速電機

RCK系列斜齒輪-傘齒輪減速電機

RCKA37..~RCKA107..

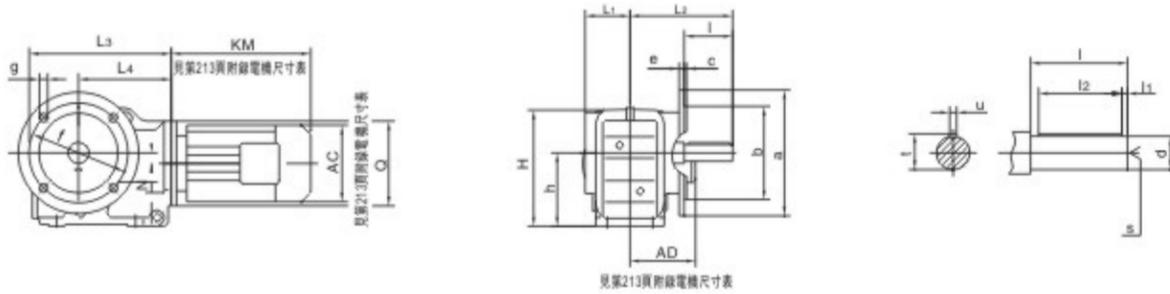


型號 size	a b c	e f g	h	k m n	p q	空心軸尺寸 Hollow shaft dimension				扭矩臂尺寸 Torque arm form				H L1 L2	N Q
						d1 d2	l1 l2 l3	l4 l5 l6	s t u	g1 g2 g3	h1 h2 h3	d3 l7 l8	r s1 ∞		
						RCKA37.. RCK..37/T..	60 35 82	100 147 97	100-0.5	20 M10 4	12 M8	30 ^{H7} 45	63 60 2.5		
RCKA47.. RCK..47/T..	70 40 100	110 170 115	112-0.5	20 M10 4	12 M8	35 ^{H7} 50	78 75 3	75 22 132	M12 38.3 10	30 20 20	112-0.5 12 160 ^{+0.2} _{-0.7}	10.4±0.1 31 36-0.3	22.5 M10x30 55°	185 243 166	7.2 160
RCKA57.. RCK..57/T..	88 47 105	122 182 120	132-0.5	25 M12 5	20 M12	40 ^{H7} 55	86 83 3	83 29 142	M16 43.3 12	40 18 18	132-0.5 13 192 ^{+0.2} _{-0.7}	16.4±0.08 54 60-0.3	29 M12x35 55°	215 269 173	13.1 160
RCKA67.. RCK..67/T..	88 42 110	130 182 125	140-0.5	25 M12 5	20 M12	40 ^{H7} 55	94 90 3.5	90 29 156	M16 43.3 12	45 25 25	140-0.5 13 200 ^{+0.2} _{-0.7}	16.4±0.08 54 60-0.3	29 M12x35 55°	226 274 179	20 160
RCKA77.. RCK..77/T..	102 48 122	154 204 139	180-0.5	32 M16 6	20 M12	50 ^{H7} 70	108 105 4	105 32 186	M16 53.8 14	52.5 25 25	180-0.5 14 250 ^{+0.2} _{-0.7}	16.4±0.08 54 60-0.3	29 M16x40 60°	286 312 202	31.3 200
RCKA87.. RCK..87/T..	118 65 160	170 280 190	212-0.5	32 M16 6	26 M16	60 ^{H7} 85	123 120 4	120 36 210	M20 64.4 18	60 30 30	212-0.5 16 300 ^{+0.2} _{-0.7}	25±0.08 72 80-0.3	41 M16x45 60°	338 390 257	25.9 250
RCKA97.. RCK..97/T..	160 83 165	226 298 190	265-1	36 M20 6	26 M16	70 ^{H7} 95	153 150 4	150 34 270	M20 74.9 20	70 40 40	265-1 17 350 ^{+0.2} _{-1.2}	25±0.08 92 100-0.3	41 M20x50 50°	414 435 277	32.3 300
RCKA107.. RCK..107/T..	190 100 190	266 370 230	315-1	44 M24 8	- -	90 ^{H7} 118	178 175 2.5	175 40 313	M24 95.4 25	74 45 45	315-1 20 450 ^{+0.2} _{-1.2}	25±0.08 92 100-0.3	41 M24x60 55°	500 537 341	52 350

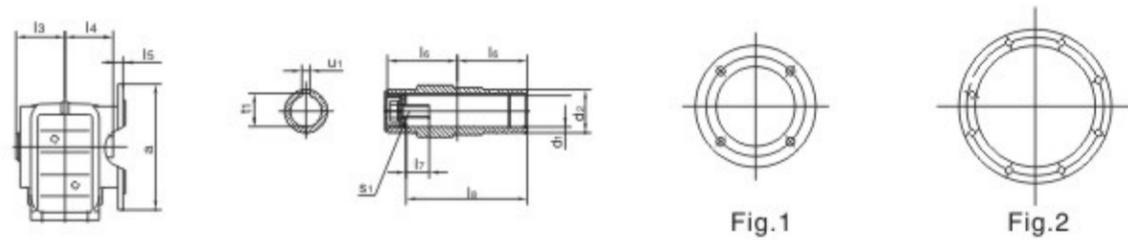
RCK系列斜齒輪-傘齒輪減速電機

RCK系列斜齒輪-傘齒輪減速電機

RCKF37..~RCKF157..



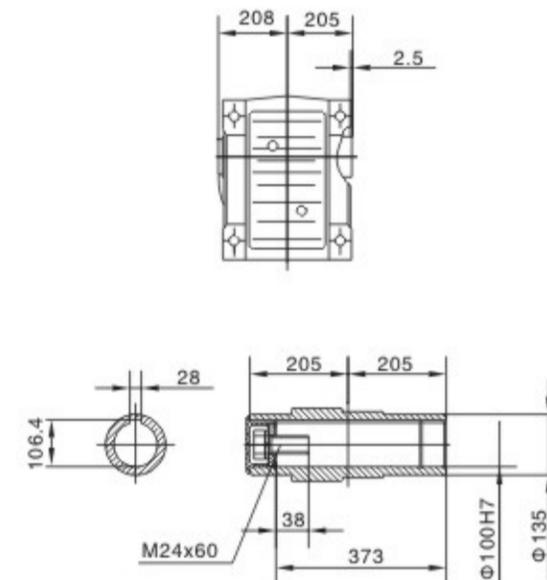
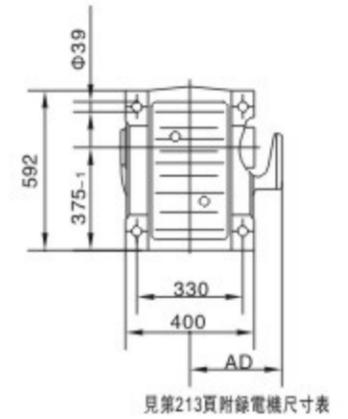
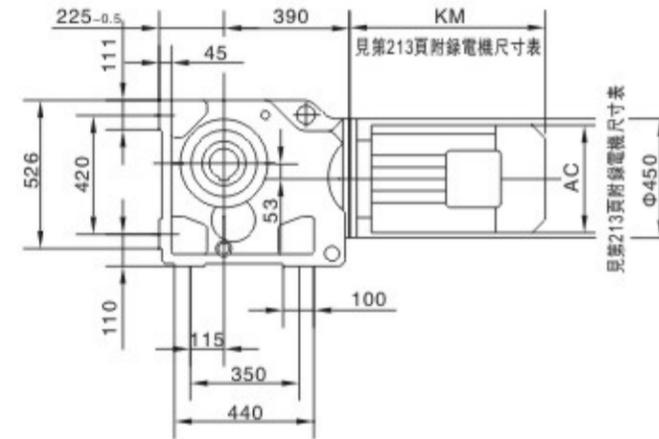
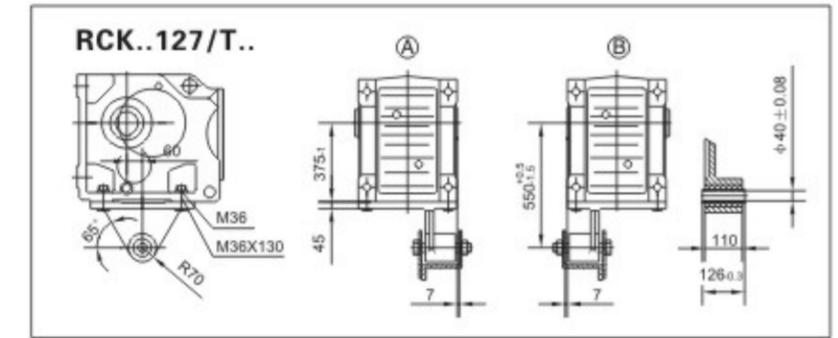
RCKAF37..~RCKAF157..



法蘭型式
Flange form

型號 model	法蘭 型式 Flange form	a b	c e	f g h	軸伸尺寸 Shaft dimension				空心軸尺寸 Hollow shaft dimension				H	L1 L2 L3	L4 N Q
					d l	l1 l2	s	t u	d1 d2	l3 l4 l5	l6 l7 l8	s1			
RCKF37.. RCKAF37..	Fig.1	160 110j6	3.5 10	130 9 100	25k6 50	5 40	M10	28 8	30 H7 45	63 60 17 24	60 17 105	M10×25	33.3 8	164 134 210	139 8.5 120
RCKF47.. RCKAF47..	Fig.1	200 130j6	3.5 10	165 11 112	30k6 60	3.5 50	M10	33 8	35 H7 50	78 75 22 25	75 132	M12×30	38.3 10	185 160 243	166 7.2 160
RCKF57.. RCKAF57..	Fig.1	250 180j6	4 15	215 13.5 132	35k6 70	7 56	M12	38 10	40 H7 55	86 83 29 23.5	83 142	M16×40	43.3 12	215 80 177 269	173 13.1 160
RCKF67.. RCKAF67..	Fig.1	250 180j6	4 15	215 13.5 140	40k6 80	5 70	M16	43 12	40 H7 55	94 90 29 23	90 156	M16×40	43.3 12	226 193 274	179 20 160
RCKF77.. RCKAF77..	Fig.1	300 230j6	4 16	265 13.5 180	50k6 100	80 10	M16	53.5 14	50 H7 70	108 105 32 37	105 183	M16×45	53.8 14	286 101 242 312	202 31.3 200
RCKF87.. RCKAF87..	Fig.1	350 250h6	5 18	300 17.5 212	60m6 120	5 110	M20	64 18	60 H7 85	123 120 36 30	120 210	M20×50	64.4 18	338 138 270 390	257 25.9 250
RCKF97.. RCKAF97..	Fig.2	450 350h6	5 22	400 17.5 265	70m6 140	7.5 125	M20	74.5 20	70 H7 95	153 150 34 41.5	150 270	M20×50	74.9 20	414 171 332 435	277 32.3 300
RCKF107.. RCKAF107..	Fig.2	450 350h6	5 25	400 17.5 315	90m6 170	5 160	M24	95 25	90 H7 118	178 175 40 41	175 313	M24×60	95.4 25	500 386 537	341 52 350
RCKF127.. RCKAF127..	Fig.2	550 450h6	5 22	500 17.5 375-1	110m6 210	15 180	M24	116 28	100 H7 135	208 205 38 51	205 373	M24×60	106.4 28	592 466 615	390 53 450
RCKF157.. RCKAF157..	Fig.2	660 550h6	6 28	600 22 450-1	120m6 210	5 200	M24	127 32	120 H7 155	253 250 36 60	250 460	M24×60	127.4 32	705 253 706	705 71.7 550

RCKA127..



ROR..

RCF..

RCK..

RCS..

RCK系列斜齒輪-傘齒輪減速電機

RCP..

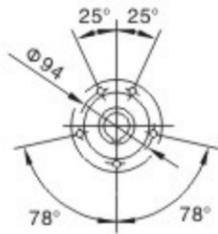
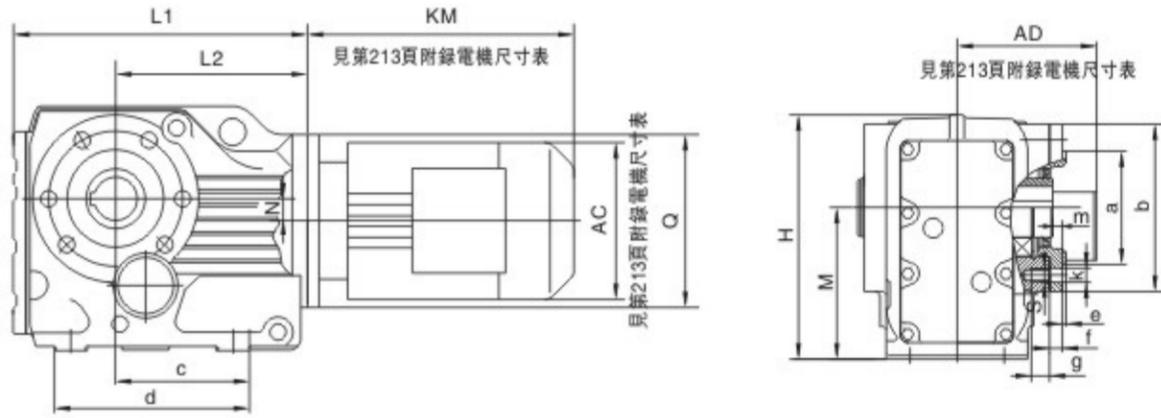
RCF..

RCK..

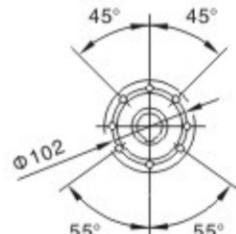
RCS..

RCK系列斜齒輪-傘齒輪減速電機

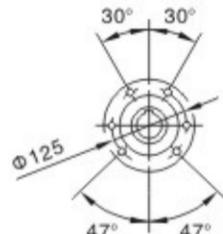
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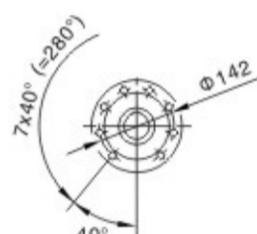
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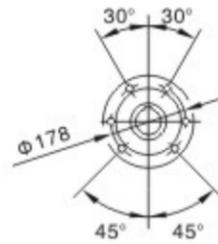
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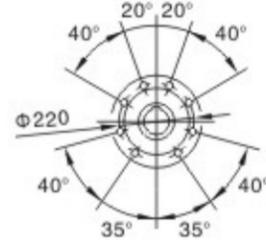
RCKAZ67..



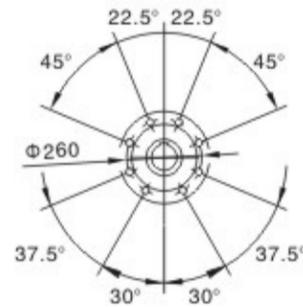
RCKAZ77..



RCKAZ87..



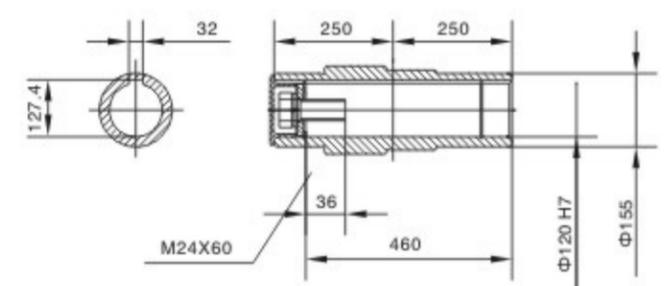
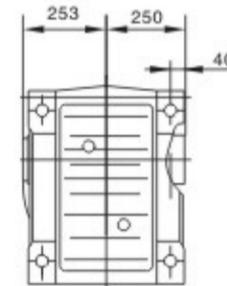
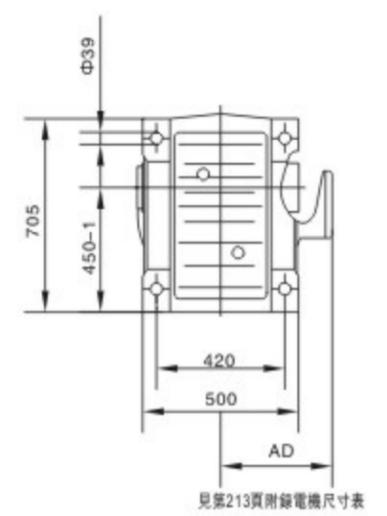
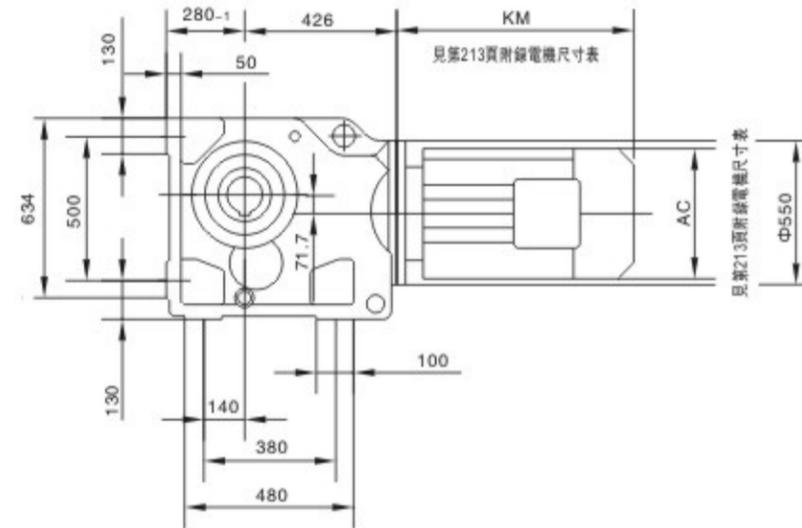
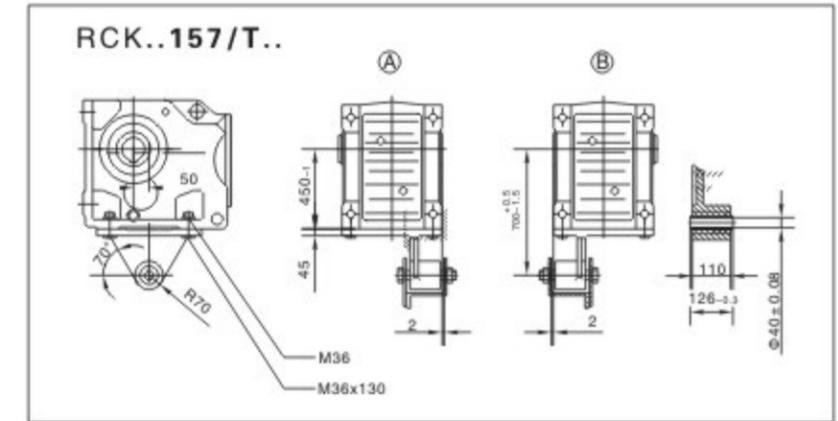
RCKAZ97..



RCKAZ107..

型號 Model	a	b	c	d	e	f	g	H	k	L1	L2	m	M	N	Q	S
RCKAZ37..	110	80j6	97	147	3	11.5	12	164	9	210	139	9	100	8.5	120	M8
RCKAZ47..	120	80j6	115	170	3	11	12	185	9	243	166	8.5	112	7.2	160	M8
RCKAZ57..	155	105j6	120	182	3.5	12	20	215	13.5	269	173	9	132	13.1	160	M12
RCKAZ67..	155	105j6	125	182	3.5	12	20	226	13.5	274	179	8.5	140	20	160	M12
RCKAZ77..	170	125j6	139	204	3.5	14	20	286	13.5	312	202	10	180	31.3	200	M12
RCKAZ87..	215	155j6	190	280	4	15	26	338	17.5	390	257	11	212	25.9	250	M16
RCKAZ97..	260	180j6	190	298	4	18	26	414	17.5	435	277	14	265	32.3	300	M16
RCKAZ107..	304	210j6	23	370	4	22	30	500	22	537	341	8	315	52	350	M20

RCKA157..



ROR..

RCF..

RCK..

RCS..

RCK系列斜齒輪-傘齒輪減速電機

ROR..

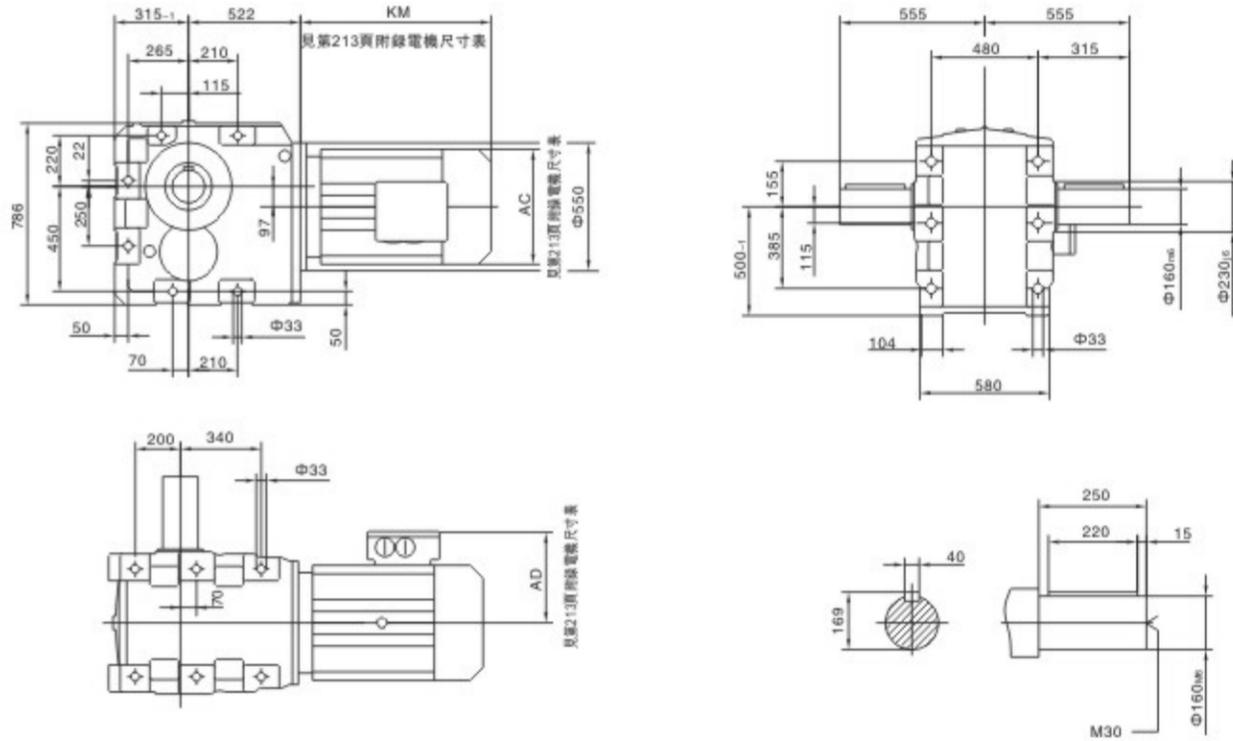
RCF..

RCK..

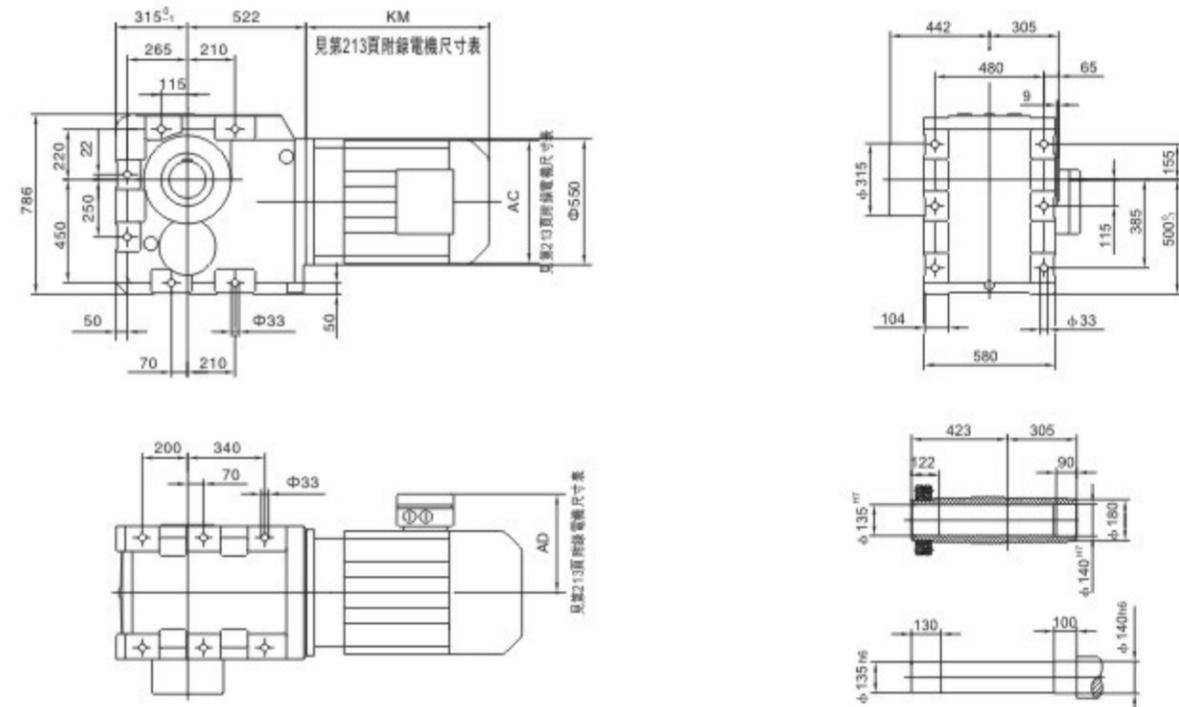
RCS..

RCK系列斜齒輪-傘齒輪減速電機

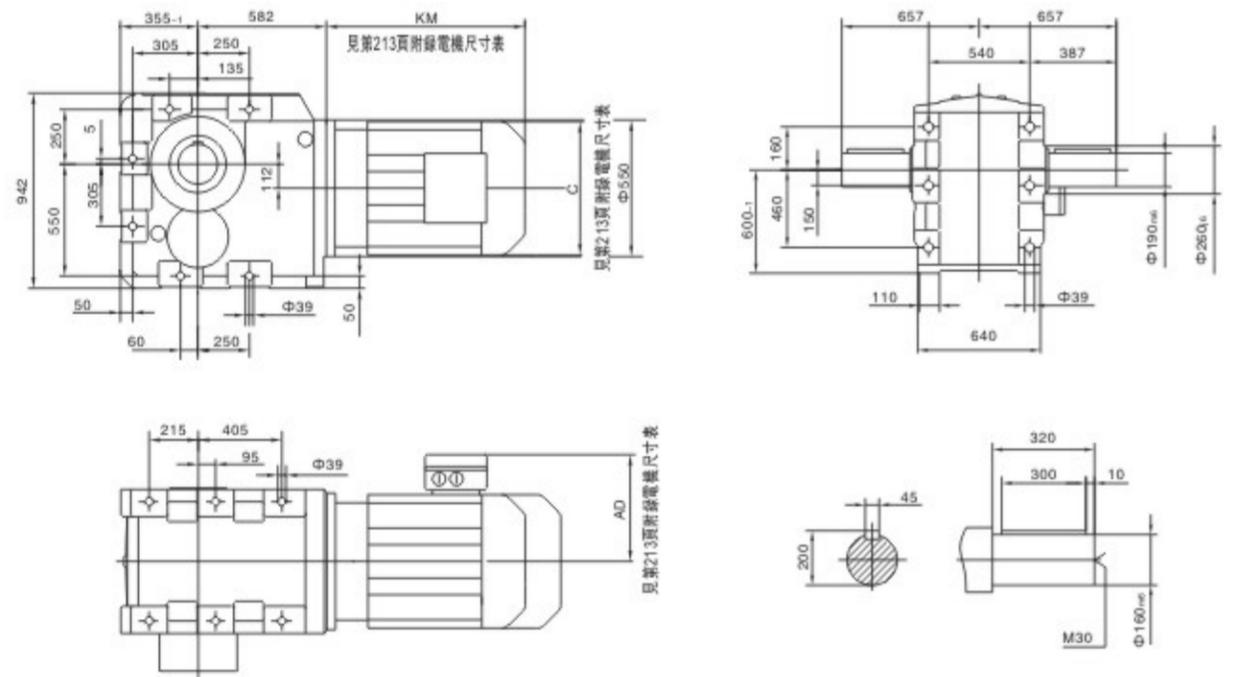
RCK167..



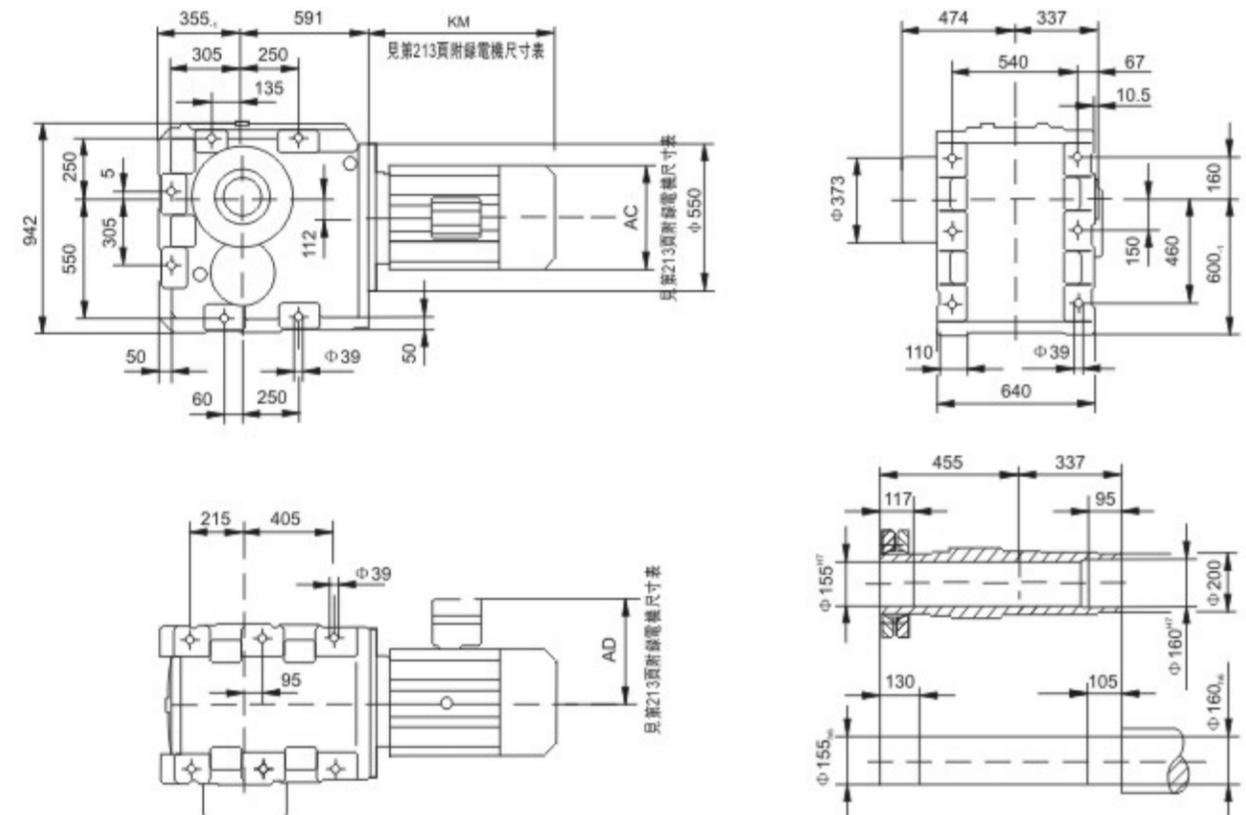
RCKH167..



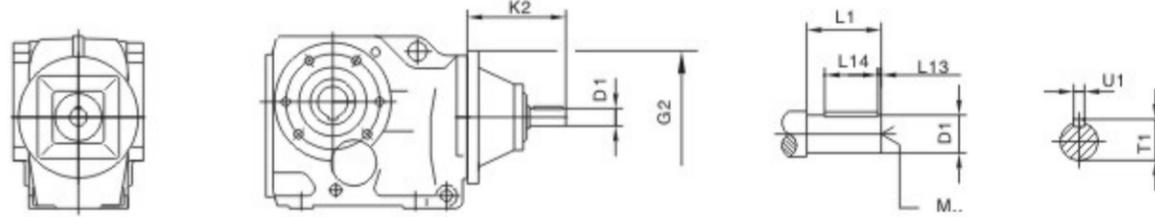
RCK187..



RCKH187..

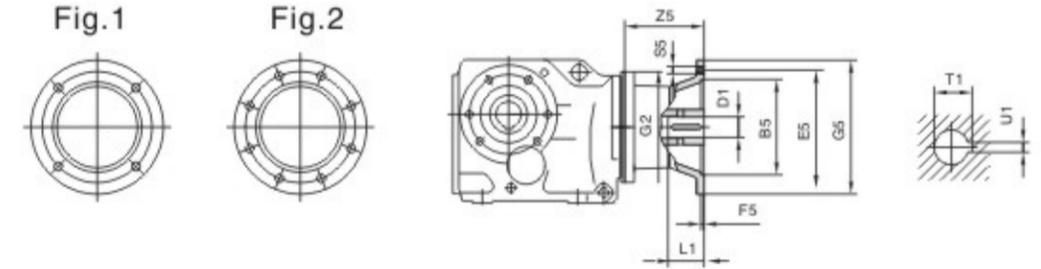


RCK..AD..



減速箱規格 Gear unit type	聯接盤規格 Motor adcopator	G2	K2	D1	L1	L13	L14	T1	U1	M
RCK..37	AD1	120	102	16	40	4	32	18	5	M5
	AD2		130	19	40	4	32	21.5	6	M6
RCK..47 RCK..57 RCK..67	AD2	160	123	19	40	4	32	21.5	6	M6
	AD3		159	24	50	5	40	27	8	M8
RCK..77	AD2	200	116	19	40	4	32	21.5	6	M6
	AD3		151	24	50	5	40	27	8	M8
	AD4		224	38	80	5	70	41	10	M12
RCK..87	AD2	250	111	19	40	4	32	21.5	6	M6
	AD3		156	28	60	5	50	31	8	M10
	AD4		219	38	80	5	70	41	10	M12
	AD5		292	42	110	10	70	45	12	M16
RCK..97	AD3	300	151	28	60	5	50	31	8	M10
	AD4		214	38	80	5	70	41	10	M12
	AD5		287	42	110	10	70	45	12	M16
	AD6		327	48	110	10	80	51.5	14	M16
RCK..107	AD3	350	145	28	60	5	50	31	8	M10
	AD4		208	38	80	5	70	41	10	M12
	AD5		281	42	110	10	70	45	12	M16
	AD6		321	48	110	10	80	51.5	14	M16
RCK..127	AD4	450	193	38	80	5	70	41	10	M12
	AD5		266	42	110	10	70	45	12	M16
	AD6		306	48	110	10	80	51.5	14	M16
	AD7		300	55	110	10	90	59	16	M20
	AD8		383	70	140	15	110	74.5	20	M20
RCK..157 RCK..167 RCK..187	AD5	550	258	42	110	10	70	45	12	M16
	AD6		298	48	110	10	80	51.5	14	M16
	AD7		292	55	110	10	90	59	16	M20
	AD8		374	70	140	15	110	74.5	20	M20

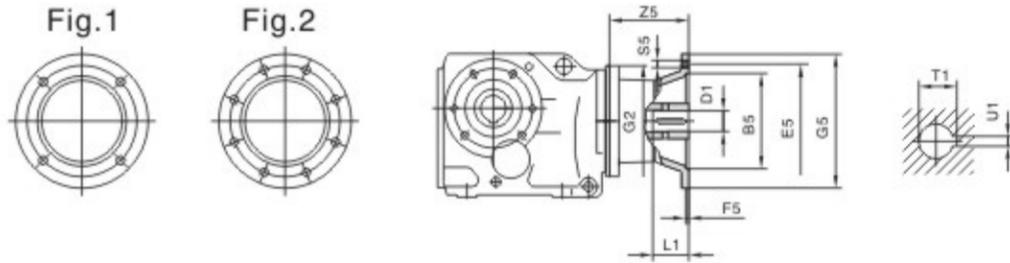
RCK..AM..



減速箱規格 Gear unit type	聯接盤規格 Motor adcopator	Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1				
RCK..37	AM63	1	95	115	3.5	120	140	M8	72	11	23	12.8	4				
	AM71 ¹⁾		110	130			14			30	16.3	5					
	AM80 ¹⁾		130	165	4.5		19	40		21.8	6						
	AM90 ¹⁾						24	50		27.3	8						
RCK..47 RCK..57 RCK..67	AM63	1	95	115	3.5	160	140	M8	66	11	23	12.8	4				
	AM71		110	130			14			30	16.3	5					
	AM80		130	165	4.5		19	40		21.8	6						
	AM90						24	50		27.3	8						
			AM100 ¹⁾	180	215		5	250		M12	134	28	60	31.3	8		
	AM112 ¹⁾	230	265	5	300	M12	179	38	80	41.3	10						
RCK..77	AM63	1	95	115	3.5	200	140	M8	60	11	23	12.8	4				
	AM71		110	130			14			30	16.3	5					
	AM80		130	165	4.5		19	40		21.8	6						
	AM90						24	50		27.3	8						
	AM100 ¹⁾		180	215	5		250	M12		126	28	60	31.3	8			
	AM112 ¹⁾		230	265	5		300	M12		179	38	80	41.3	10			
	RCK..87		AM80	1	130		165	4.5		250	200	M10	87	19	40	21.8	6
			AM90		24		50				27.3			8			
			AM100		180		215	5			121	28		60	31.3	8	
AM112		174	38			80			41.3		10						
AM132S		230	265		5	300	M12	174	38		80	41.3		10			
AM132M						42	110	45.3	6								
AM132ML		250	300		6	350	M16	232	48		110	51.8		8			
RCK..97	AM100	1	180	215	5	300	250	M12	116	28	60	31.3	8				
	AM112		230	265			300			M12	169	38	80	41.3	10		
	AM132S		250	300			6			350	M16	227	42	110	45.3	12	
	AM132M				48			51.8		14							
	AM160 ¹⁾		300	350	7		400	M16		268	55		59.3	16			
	AM180 ¹⁾						283			60	140	64.4	18				
	AM200 ¹⁾		350	400	7		450	M16									
	AM225 ¹⁾																

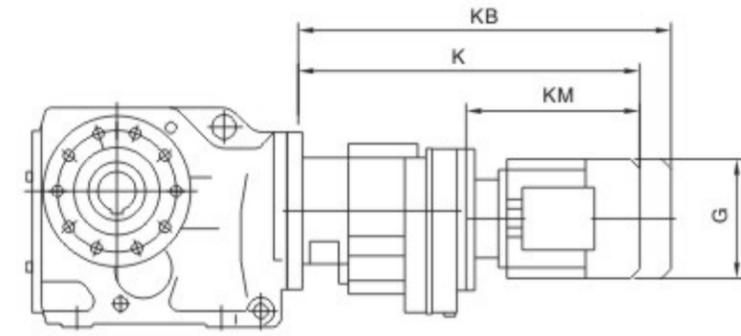
1) 如果安裝在RCK系列底腳安裝方式的減速機上,請檢查尺寸G5/2,它可能已突出平面。
Dimension G5/2 May protrude past foot mounting surface if mounted on RCK foot - mounted gear unit, please check.

RCK..AM..



減速箱規格 Gear unit type	聯接盤規格 Motor adaptor	Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1						
RCK..107	AM100	1	180	215	5	350	250	M12	110	28	60	31.3	8						
	AM112																		
	AM132S																		
	AM132M																		
	AM132ML																		
	AM160		6	230	265														
	AM180																		
	AM200																		
AM225	2	350	400	7	400	M16	262	55	110	59.3	16								
RCK..127	AM132S	1	230	265	5	450	300	M12	148	38	80	41.3	10						
	AM132M																		
	AM132ML																		
	AM160		6	250	300														
	AM180																		
	AM200																		
	AM225		7	350	400		450	M16	262	60	140	64.4	18						
	AM250																		
AM280	2	450	500	7	550	336	65	140	69.4	20									
RCK..157 RCK..167 RCK..187	AM160	1	250	300	6	550	350	M16	198	42	110	45.3	12						
	AM180																		
	AM200	7	300	350	400									M16	239	55	140	59.3	16
	AM225																		
	AM250	2	350	400	7		550	254	60	140	64.4	18							
	AM280												450	500	7	550	328	65	140

RCK..R..



減速箱規格 Gear unit type	電機規格 Motor type	G	K	KB	KM
RCK..37R17	D63..	155	368	425	193
	D71D	155	369	433	194
	D80..	155	419	483	244
RCK..47R17 RCK..67R37	D63..	155	400	457	235
	D71D	155	401	465	236
	D80..	155	451	515	286
RCK..57R37	D63..	155	410	457	235
	D71D	155	401	456	236
	D80..	155	451	515	286
RCK..77R37	D63..	155	392	449	235
	D71D	155	393	457	236
	D80..	155	443	507	286
RCK..87R57	D90..	210	443	528	286
	D63..	155	445	502	229
	D71D	155	445	509	229
	D80..	210	495	559	279
	D90..	210	495	580	279
	D100M	210	545	630	329
RCK..97R57	D100L	210	565	650	349
	D63..	155	440	497	229
	D71D	155	440	504	229
	D80..	155	490	554	279
	D90..	210	490	575	279
	D100M	210	540	625	329
RCK..107R77	D100L	210	560	645	349
	D112M	240	575	655	364
	D63..	155	470	527	223
	D71D	155	470	534	223
	D80..	155	520	584	273
	D90..	210	518	603	271
	D100M	210	568	653	321
	D100L	210	588	673	341
	D112M	240	602	682	355
	D132S	240	647	727	400
	D132M	285	699	811	452
D132ML	285	719	831	472	
D160M	330	749	861	512	

減速箱規格 Gear unit type	電機規格 Motor type	G	K	KB	KM
RCK..127R77	D63..	155	455	512	223
	D71D	155	455	519	223
	D80..	155	505	569	273
	D90..	210	503	588	271
	D100M	210	553	638	321
	D100L	210	573	658	341
	D112M	240	587	667	355
	D132S	240	632	712	400
	D132M	285	684	796	452
	D132ML	285	704	816	472
RCK..127R87	D160M	330	734	846	502
	D90..	210	547	632	267
	D100M	210	597	682	317
	D100L	210	617	702	337
	D112M	240	630	710	350
	D132S	240	675	755	395
	D132M	285	727	839	447
	D132ML	285	747	859	467
	D160M	330	777	889	497
	D160L	330	824	980	544
RCK..157R97 RCK..167R97 RCKH..167BR97	D180..	380	896	1052	616
	D80..	155	586	650	261
	D90..	210	586	671	261
	D100M	210	636	721	311
	D100L	210	656	741	331
	D112M	240	670	750	345
RCK187R97 RCKH187R97	D132S	240	715	795	390
	D132M	285	767	879	442
	D132ML	285	787	899	462
	D160M	330	817	929	492
	D160L	330	864	1020	539
	D180..	380	936	1092	61
RCK..157R107	D200..	420	1024	1180	699
	D100M	210	687	772	305
	D100L	210	707	792	325
	D112M	240	721	801	339
	D132S	240	766	846	384
	D132M	285	818	930	436
RCK167R97 RCKH167BR97	D132ML	285	838	950	456
	D160M	330	868	980	486
	D160L	330	915	1071	533
	D180..	380	987	1143	605
	D200..	420	1075	1231	693
	D225..	470	1107	1263	725

注：上表中電機尺寸為參考尺寸，因空間限制對尺寸有嚴格要求時請向我公司諮詢。
Notes: The dimension of motor in the above table is only for reference.
If you have special require, please consult us.

RCK系列斜齒輪 - 傘齒輪減速電機

RCK系列斜齒輪 - 傘齒輪減速電機

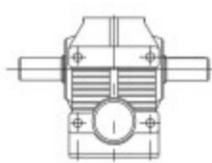
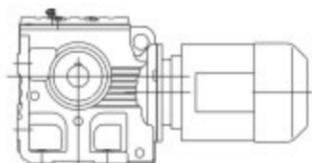
8. RCS 斜齒輪 – 蝸輪蝸杆減速電機 RCS Helical – Worm Geared Motor

8.1 設計方案

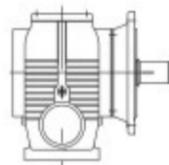
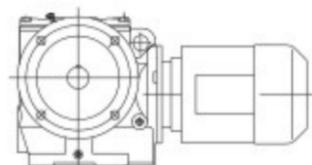
8.1 Versions of geared motors

斜齒輪 – 蝸輪蝸杆齒輪減速電機有以下設計方案：

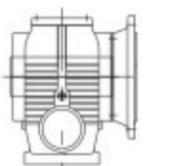
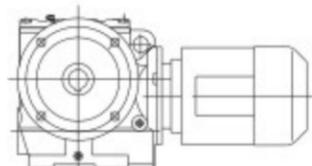
The following types of helical – worm gearmotor can be supplied:



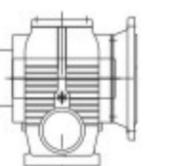
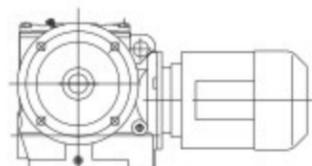
RCS..D..
底腳安裝斜齒輪--蝸輪蝸杆齒輪減速電機
Foot – mounted helical – worm gearmotor



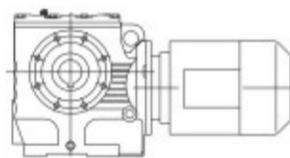
RCSF..D..
法蘭安裝斜齒輪--蝸輪蝸杆齒輪減速電機
Helical – worm gearmotor flange – mounted version.



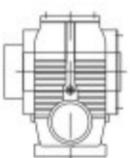
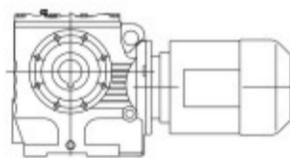
RCSAF..D..
B5 法蘭空心軸安裝斜齒輪--蝸輪蝸杆齒輪減速電機
Helical – worm gearmotor in B5 flange – mounted version with hollow shaft.



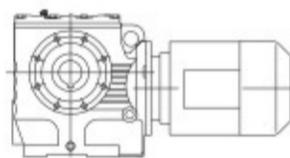
RCSHF..D..
B5 法蘭空心軸鎖緊盤安裝斜齒輪--蝸輪蝸杆齒輪減速電機
Helical – worm gearmotor in B5 flange – mounted version with hollow shaft and shrink disk.



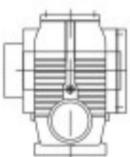
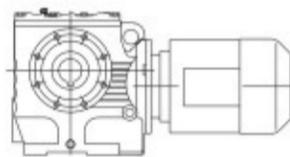
RCSA..D..
空心軸安裝斜齒輪--蝸輪蝸杆齒輪減速電機
Helical – worm gearmotor with hollow shaft.



RCSH..D..
空心軸鎖緊盤安裝斜齒輪--蝸輪蝸杆齒輪減速電機
Helical – worm gearmotor with hollow shaft and shrink disk.



RCSAZ..D..
B14 法蘭空心軸安裝斜齒輪--蝸輪蝸杆齒輪減速電機
Helical – worm gearmotor in B14 flange – mounted version with hollow shaft



RCSHZ..D..
B14 法蘭空心軸鎖緊盤安裝斜齒輪--蝸輪蝸杆齒輪減速電機
Helical – worm gearmotor in B14 flange – mounted version with hollow shaft and shrink disk.

8.2 可行的組合方式 8.2 Type of Combination

以下是斜齒輪-蝸杆減速與交流(帶制動)電機的組合列表。表中給出了每種組合的速比範圍。
The below is combination table between gear box and electro motor in each list the ratio range.

減速器型號 Gear unit size	級 Stages	D63 D71	D80	D90	D100	D112	D132S	D132M
RCS/SF/SA/SAF37	2	6.80-18.24 19.89-51.30 55.93-157.43	6.80-15.53 19.13 22.50-43.68 53.83 63.33-122.94	6.80-13.39 19.13 22.50-37.66 53.83 63.33-106.00				
RCS/SF/SA/SAF47	2	7.28-17.62 20.33-54.59 63.80-201.00	7.28-17.62 20.33-54.59 67.20 71.75-158.12	7.28-19.54 23.20-47.32 56.61 67.20 71.75-137.05	7.28-14.24 19.54 23.20-38.23 56.61 67.20 71.75-110.73			
RCS/SF/SA/SAF57	2	7.28-17.62 20.33-54.59 63.80-201.00	7.28-17.62 20.33-54.59 67.20 71.75-158.12	7.28-19.54 23.20-47.32 56.61 67.20 71.75-137.05	7.28-14.24 19.54 23.20-38.23 56.61 67.20 71.75-110.73			
RCS/SF/SA/SAF67	2	11.03-17.28 20.37-23.22 24.44 29.63-54.70 62.35-65.63 75.06 85.83-217.41	8.69-17.28 20.37-23.22 24.44-54.70 62.35-65.63 75.06 85.83-217.41	7.56-17.28 20.37-23.22 24.44-54.70 62.35-65.63 78.00-190.1	7.56-17.28 20.37-23.22 23.33 26.93-46.40 58.80 67.57 78.00-158.45	7.56-20.30 23.33 26.93-46.40 58.80 67.57 78.00-134.40	7.56-13.73 20.30 23.33 26.93-36.85 58.80 67.57 78.00-106.75	7.56-13.73 20.30 23.33 26.93-36.85 58.80 67.57 78.00-106.75
RCS/SF/SA/SAF77	2	15.28-18.42 20.99 22.89 35.94-53.87 63.03 71.33-75.09 107.83-256.47	12.07-18.42 20.99 22.89 28.41-53.87 63.03 71.33-75.09 85.22-256.47	8.06-18.42 20.99 22.89 22.89-75.09 85.22-225.26	8.06-18.42 20.99 22.89-66.67 75.20-189.09	8.06-18.42 20.99 25.07-43.33 56.92 66.67 75.20-161.60	8.06-18.97 22.22 25.07-43.33 56.92 66.67 75.20-130.00	8.06-18.97 22.22 25.07-43.33 56.92 66.67 75.20-130.00
RCS/SF/SA/SAF87	2	17.49-19.70 21.43 25.50 39.10-57.00 64.27-70.43 81.76 91.20	17.49-19.70 21.43 25.50 39.10-57.00 64.27-70.43 81.76 91.20	12.21-19.70 21.43 25.50-57.00 64.27-70.43 81.76-288.00	9.07-19.70 21.43 25.50-57.00 64.27-86.15 86.15 99.26-258.18	9.07-19.70 21.43 25.50-57.00 64.27-77.14 77.14 86.15 99.26-222.40	7.88-19.70 21.43 25.50-64.00 77.14 86.15 99.26-180.00	7.88-19.70 21.43 25.50-64.00 77.14 86.15 99.26-180.00
RCS/SF/SA/SAF97	2	23.59 26.39 49.87-60.59 71.43 80.85 161.74-286.40	23.59 26.39 49.87-60.59 71.43 80.85 161.74-286.40	17.05-23.59 26.39 36.05-60.59 71.43 80.85 116.92-286.40	13.07-23.859 26.39 32.60-60.59 71.43 80.85-286.40	13.07-23.59 26.39 32.60-60.59 71.43 80.85-286.40	8.26-23.59 26.39 32.60-78.26 71.43 89.60-231.67	8.26-23.59 26.39 32.60-78.26 71.43 89.60-231.67

減速器型號 Gear unit size	級 Stages	D132ML	D160M	D160L	D180
RCS/SF/SA/SAF77	2	8.06-13.76 18.97 22.22 25.07-32.38 56.92 66.67 75.20-97.14	8.06-13.76 18.97 22.22 25.07-32.38 56.92 66.67 75.20-97.14		
RCS/SF/SA/SAF87	2	7.88-20.27 24.43 27.28-44.03 64.00 77.14 86.15 99.26-139.05	7.88-20.27 24.43 27.28-44.03 64.00 77.14 86.15 99.26-139.05	7.88-20.27 24.43 27.28-44.03 64.00 77.14 86.15 99.26-139.05	7.88-15.64 20.27 24.43 27.28-34.96 64.00 77.14 86.15 99.26-110.40
RCS/SF/SA/SAF97	2	8.26-23.59 26.39 32.60-55.79 65.45 78.26 89.60-180.95	8.26-23.59 26.39 32.60-55.79 65.45 78.26 89.60-180.95	8.26-23.59 26.39 32.60-55.79 65.45 78.26 89.60-180.95	8.26-21.23 24.13 27.63-44.89 65.45 78.26 89.60-145.60

8.3 速比與最大扭矩 8.3 Ratio and Max. Torque

RCS37-57 表中 n_n 是按 $n_e=1400$ 1/min計算

RCS37		90Nm			
i	n_n [1/min]	M_{max} [Nm]	F_{Ra} [N]	AD	
157.43	8.9	92	3000		
144.40	9.7	92	3000		
122.94	11	91	3000		
106.00	13	88	3000		
98.80	14	87	3000	AD ₁	
86.36	16	86	3000		
80.96	17	85	3000		
71.44	20	84	3000		
63.33	22	82	3000		
55.93	25	81	3000		
53.83	26	80	3000	AD ₂	
51.30	27	81	3000		
43.68	32	81	3000		
37.66	37	79	3000		
35.10	40	78	3000	AD ₁	
30.68	46	76	2870		
28.76	49	75	2800		
25.38	55	74	2660		
22.50	62	73	2530		
19.89	70	52	2470		
19.13	73	71	2380	AD ₂	
18.24	77	52	2380	AD ₁	
15.53	90	50	2240		
13.39	105	49	2110		
12.48	112	48	2060		
10.91	128	48	1940	AD ₁	
10.23	137	47	1900		
9.02	155	46	1810		
8.00	175	45	1730		
6.80	206	43	1630		

RCS47		170Nm			
i	n_n [1/min]	M_{max} [Nm]	F_{Ra} [N]	AD	
201.00	7.0	170	5340		
184.80	7.6	170	5340		
158.12	8.9	170	5340		
137.05	10	168	5350		
128.10	11	168	5350	AD ₁	
110.73	13	168	5350		
94.08	15	168	5350		
84.00	17	167	5360		
71.75	20	167	5360		
69.39	20	155	5370		
67.20	21	167	5360		
63.80	22	155	5370		
56.61	25	165	5320	AD ₂	
54.59	26	155	5150		
47.32	30	155	4850	AD ₁	
44.22	32	155	4710		
38.23	37	155	4430		
32.48	43	155	4120		
29.00	48	155	3920		
24.77	57	155	3650		
23.20	60	152	3570		
20.33	69	110	3370	AD ₂	
19.54	72	144	3370		
17.62	79	110	3160		
16.47	85	110	3060		
14.24	98	110	2850		
12.10	116	109	2650		
10.80	130	109	2500		
9.23	152	109	2310		
8.64	162	109	2230		
7.28	192	103	2110		

RCS57		300Nm			
i	n_n [1/min]	M_{max} [Nm]	F_{Ra} [N]	AD	
201.00	7.0	295	7130		
184.80	7.6	295	7130		
158.12	8.9	295	7130		
137.05	10	295	7130	AD ₁	
128.10	11	295	7130		
110.73	13	295	7130		
94.08	15	295	7130		
84.00	17	295	7130		
71.75	20	290	7170		
69.39	20	245	7520		
67.20	21	285	7220		
63.80	22	245	7520		
56.61	25	265	7370		
54.59	26	245	7520		
47.32	30	245	7520		
44.22	32	245	7520		
38.23	37	245	7320		
32.48	43	245	6840		
29.00	48	245	6520	AD ₂	
24.77	57	245	6100		
23.20	60	245	5930		
20.33	69	168	5690		
19.54	72	215	5720		
17.62	79	168	5350		
16.47	85	168	5200		
14.24	98	169	4860		
12.10	116	169	4520		
10.80	130	169	4290		
9.23	152	169	3990		
8.64	162	166	3900		
7.28	192	146	3790		

RCS系列斜齒輪-蝸輪蝸杆減速電機

RCS系列斜齒輪-蝸輪蝸杆減速電機

RCS67-87 表中 n_a 是按 $n_e=1400$ 1/min計算

RCS67 520Nm					RCS77 1270Nm					RCS87 2280Nm				
i	n_a [1/min]	M_{max} [Nm]	F_{Ra} [N]	AD	i	n_a [1/min]	M_{max} [Nm]	F_{Ra} [N]	AD	i	n_a [1/min]	M_{max} [Nm]	F_{Ra} [N]	AD
217.41	6.4	520	8680		256.47	5.5	1270	11800		288.00	4.9	2280	27900	
190.11	7.4	520	8680		225.26	6.2	1270	11800		258.18	5.4	2280	27900	
180.60	7.8	520	8680		214.00	6.5	1270	11800		222.40	6.3	2280	27900	
158.45	8.8	520	8680		189.09	7.4	1270	11800		202.96	6.9	2260	28000	
134.40	10	520	8680		161.60	8.7	1260	11900		180.00	7.8	2210	28100	
121.33	12	520	8680		148.15	9.4	1240	12000		151.30	9.3	2150	28200	
106.75	13	520	8680	AD ₂	130.00	11	1210	12300		139.05	10	2100	28300	
100.80	14	520	8680		123.20	11	1200	12400		123.48	11	2060	28300	AD ₂
85.83	16	520	8680		107.83	13	1170	12600		110.40	13	2000	28400	
78.00	18	520	8680		97.14	14	1140	12900		99.26	14	1960	28500	
75.06	19	480	9020		85.22	16	1100	13200	AD ₂	91.20	15	1510	29100	
67.57	21	520	8680		75.20	19	1070	13400		86.15	16	1880	28600	
65.63	21	480	9020		75.09	19	1100	13200		81.76	17	1600	29000	
62.35	22	480	9020		71.33	20	1100	13200		77.14	18	1820	28700	
58.80	24	500	8850	AD ₂	66.67	21	1040	13600		70.43	20	1600	29000	
54.70	26	480	8670		63.03	22	1100	12800		64.27	22	1600	29000	
46.40	30	480	8060		56.92	25	990	13300		64.00	22	1700	28900	AD ₂
41.89	33	480	7690		53.87	26	1100	11900		57.00	25	1600	29000	AD ₂
36.85	38	480	7250		49.38	28	1100	11500		47.91	29	1600	29000	
34.80	40	480	7060	AD ₂	43.33	32	1100	10800		44.03	32	1600	29000	
29.63	47	480	6540		41.07	34	1100	10500		39.10	36	1600	28200	
26.93	52	480	6240		35.94	39	1100	9850		34.96	40	1600	27100	AD ₂
24.44	57	340	6040		32.38	43	1090	9400		31.43	45	1600	26000	
23.33	60	480	5810		28.41	49	1050	8970		27.28	51	1600	24700	
23.22	60	340	5890		25.07	56	1020	8550		25.50	55	1240	23400	
20.37	69	340	5520		22.89	61	705	7440		24.43	57	1600	23700	
20.30	69	425	5760	AD ₂	22.22	63	980	8220		21.43	65	1240	21800	
17.28	81	340	5080		20.99	67	705	6820	AD ₂	20.27	69	1600	22100	
15.60	90	340	4820	AD ₂	18.97	74	930	7800		19.70	71	1240	21100	
13.73	102	340	4510		18.42	76	705	5920		17.49	80	1240	20200	
12.96	108	340	4310		17.45	80	710	5470		15.64	90	1240	19300	AD ₁
11.03	127	340	3660		15.28	92	710	4610		14.06	100	1240	18500	
10.03	140	340	3290		13.76	102	710	3960		12.21	115	1240	17400	
8.69	161	335	2860	AD ₂	12.07	116	720	3000		10.93	128	1240	16600	
7.56	185	295	3220		10.65	131	720	2280		9.07	154	1140	15900	
					9.44	148	725	1040	AD ₁	7.88	178	1010	15700	
					8.06	174	680	1160						

 RCS97,RCS37/47R17 表中 n_a 是按 $n_e=1400$ 1/min計算

RCS97 4000Nm					RCS37R17 90Nm					RCS47R17 185Nm				
i	n_a [1/min]	M_{max} [Nm]	F_{Ra} [N]	AD	i	n_a [1/min]	M_{max} [Nm]	F_{Ra} [N]	AD	i	n_a [1/min]	M_{max} [Nm]	F_{Ra} [N]	AD
286.40	4.9	4000	36300		10037	0.14	92	3000		12909	0.11	185	5250	
262.22	5.3	4000	36300		8654	0.16	92	3000		11189	0.13	185	5250	
231.67	6.0	4000	36300		8066	0.17	92	3000		10374	0.13	185	5250	
196.52	7.1	4000	36300		7051	0.20	92	3000		8992	0.16	185	5250	
180.95	7.7	3920	36500		6079	0.23	92	3000		7860	0.18	185	5250	
161.74	8.7	3840	36600		5431	0.26	92	3000		6887	0.20	185	5250	
145.60	9.6	3730	36800	AD ₂	4747	0.29	92	3000		6055	0.23	185	5250	
131.85	11	3650	37000		4155	0.34	92	3000		5292	0.26	185	5250	
116.92	12	3510	37200		3632	0.39	92	3000		4637	0.30	185	5250	
105.71	13	3440	37300		2866	0.49	92	3000		4092	0.34	185	5250	
89.60	16	3240	37600		2471	0.57	92	3000		3582	0.39	185	5200	
80.85	17	3230	37600		2160	0.65	92	3000		3131	0.45	185	5200	
78.26	18	3080	37900		1887	0.74	92	3000		2714	0.52	185	5200	
71.43	20	3300	37500	AD ₁	1665	0.84	92	3000		2412	0.58	185	5200	
65.45	21	2900	38100	AD ₂	1456	0.96	92	3000		2131	0.66	185	5200	
60.59	23	3300	37500		1271	1.1	92	3000		1863	0.75	185	5200	
55.79	25	3300	37100		1121	1.2	92	3000		1663	0.84	185	5200	
49.87	28	3300	35600		994	1.4	92	3000		1435	0.98	185	5200	
44.89	31	3300	34100	AD ₁	869	1.6	92	3000		1254	1.1	185	5200	
40.65	34	3300	32800		774	1.8	92	3000		1120	1.2	185	5200	
36.05	39	3300	31300		666	2.1	92	3000		1083	1.3	185	5200	
32.60	43	3200	30400		596	2.3	92	3000		965	1.5	185	5200	
27.63	51	3010	29000	AD ₁	521	2.7	92	3000		956	1.5	185	5210	
26.39	53	2600	26100	AD ₁	456	3.1	92	3000		865	1.6	185	5200	
24.13	58	2870	28000		398	3.5	92	3000		750	1.9	185	5200	
23.59	59	2600	24900		351	4.0	92	3000		655	2.1	185	5200	
21.23	66	2600	23700		303	4.6	92	3000		574	2.4	185	5200	
19.23	73	2600	22700	AD ₂	265	5.3	92	3000		506	2.8	185	5200	
17.05	82	2570	21100		232	6.0	92	3000		438	3.2	185	5200	
15.42	91	2470	20800		202	6.9	92	3000		388	3.6	185	5200	
13.07	107	2330	20100		179	7.8	92	3000		336	4.2	185	5200	
11.41	123	2210	19500		158	8.9	92	3000		294	4.8	185	5200	
9.55	147	2040	18800		144	9.7	92	3000		257	5.4	185	5260	
8.26	169	1770	18800		118	12	92	3000		229	6.1	185	5200	
					110	13	92	3000		200	7.0	185	5200	
										187	7.5	185	5200	
										165	8.5	185	5200	
										148	9.5	185	5200	
										131	11	185	5200	

 RCR
RCF
RCK
RCS
RCS系列斜齒輪-蝸輪蝸杆減速電機

 RCR
RCF
RCK
RCS
RCS系列斜齒輪-蝸輪蝸杆減速電機

RCS57R17, RCS67/77R37 表中 n_s 是按 $n_e=1400$ 1/min計算

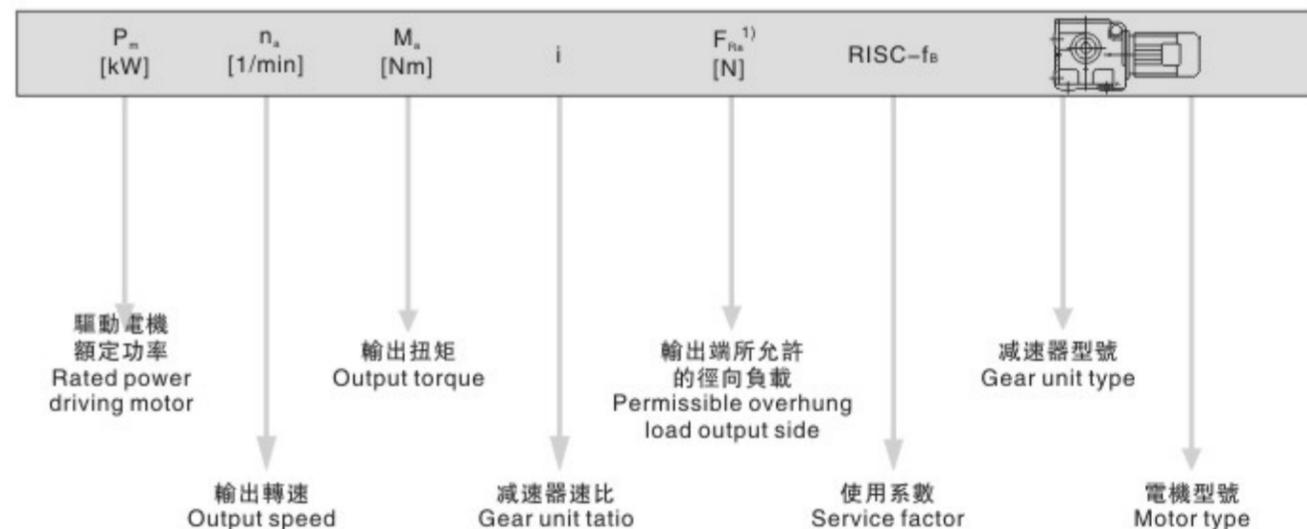
RCS57R17 300Nm				RCS67R37 570Nm				RCS77R37 1270Nm			
i	n_s [1/min]	M_{amax} [Nm]	F_{ra} [N]	i	n_s [1/min]	M_{amax} [Nm]	F_{ra} [N]	i	n_s [1/min]	M_{amax} [Nm]	F_{ra} [N]
12909	0.11	330	6800	21362	0.07	570	8190	25493	0.05	1270	11700
11189	0.13	330	6800	19594	0.07	570	8190	21787	0.06	1270	11700
10374	0.13	330	6800	18120	0.08	570	8190	19907	0.07	1270	11700
8992	0.16	330	6800	16682	0.08	570	8190	17013	0.08	1270	11700
7860	0.18	330	6800	14383	0.10	570	8190	14668	0.10	1270	11700
6887	0.20	330	6800	12774	0.11	570	8190	13110	0.11	1270	11700
6055	0.23	330	6800	11013	0.13	570	8190	11569	0.12	1270	11700
5292	0.26	330	6800	9694	0.14	570	8190	9887	0.14	1270	11700
4637	0.30	330	6800	8529	0.16	570	8190	8817	0.16	1270	11700
4092	0.34	330	6800	7455	0.19	570	8190	7735	0.18	1270	11700
3628	0.39	330	6800	6531	0.21	570	8190	6735	0.21	1270	11700
3131	0.45	300	7090	5759	0.24	570	8190	5943	0.24	1270	11700
2714	0.52	300	7090	4965	0.28	570	8190	5214	0.27	1270	11700
2412	0.58	300	7090	4410	0.32	570	8190	4618	0.30	1270	11700
2131	0.66	300	7090	3880	0.36	570	8190	3992	0.35	1270	11700
1863	0.75	300	7090	3432	0.41	570	8190	3540	0.40	1270	11700
1663	0.84	300	7090	2944	0.48	570	8190	3098	0.45	1270	11700
1435	0.98	300	7090	2630	0.53	570	8190	2753	0.51	1240	12000
1254	1.1	300	7090	2279	0.61	570	8190	2374	0.59	1240	12000
1083	1.3	300	7090	2014	0.70	570	8190	2083	0.67	1240	12000
965	1.5	300	7090	1772	0.79	570	8190	1813	0.77	1240	12000
865	1.6	300	7090	1559	0.90	570	8190	1745	0.80	1240	12000
750	1.9	300	7090	1363	1.0	570	8190	1600	0.88	1240	12000
655	2.1	300	7090	1194	1.2	570	8190	1404	1.0	1240	12000
574	2.4	300	7090	1045	1.3	570	8190	1245	1.1	1240	12000
506	2.8	300	7090	914	1.5	570	8190	1100	1.3	1240	12000
438	3.2	300	7090	809	1.7	570	8190	954	1.5	1240	12000
388	3.6	300	7090	712	2.0	570	8190	837	1.7	1240	12000
336	4.2	300	7090	615	2.3	570	8190	714	2.0	1240	12000
294	4.8	300	7090	543	2.6	570	8190	637	2.2	1240	12000
269	5.2	300	7090	469	3.0	570	8190	574	2.4	1240	12000
229	6.1	300	7090	424	3.3	570	8190	499	2.8	1240	12000
204	6.9	300	7090	365	3.8	570	8190	438	3.2	1240	12000
187	7.5	300	7090	319	4.4	570	8190	389	3.6	1240	12000
165	8.5	300	7090	281	5.0	570	8190	327	4.3	1240	12000
131	11	300	7090	246	5.7	570	8190	289	4.8	1240	12000
				221	6.3	570	8190	250	5.6	1240	12000
				198	7.1	570	8190	219	6.4	1240	12000
				168	8.3	570	8190				
				156	9.0	570	8190				

RCS87/97R57 表中 n_s 是按 $n_e=1400$ 1/min計算

RCS87R57 2500Nm				RCS97R57 4200Nm			
i	n_s [1/min]	M_{amax} [Nm]	F_{ra} [N]	i	n_s [1/min]	M_{amax} [Nm]	F_{ra} [N]
25987	0.05	2500	27500	33818	0.04	4200	34200
23940	0.06	2500	27500	31154	0.04	4200	34200
20568	0.07	2500	27500	27847	0.05	4200	34200
18265	0.08	2500	27500	24641	0.06	4200	34200
16774	0.08	2500	27500	21537	0.07	4200	34200
14820	0.09	2500	27500	18749	0.07	4200	34200
13160	0.11	2500	27500	16233	0.09	4200	34200
11200	0.12	2500	27500	14576	0.10	4200	34200
9904	0.14	2500	27500	12752	0.11	4200	34200
8549	0.16	2500	27500	11267	0.12	4200	34200
7643	0.18	2500	27500	10078	0.14	4200	34200
6706	0.21	2500	27500	8608	0.16	4200	34200
5875	0.24	2500	27500	7554	0.19	4200	34200
5187	0.27	2500	27500	6640	0.21	4200	30600
4606	0.30	2500	27500	5780	0.24	4200	30600
3872	0.36	2500	27500	4937	0.28	4200	30600
3475	0.40	2500	27500	4444	0.32	4200	30600
2905	0.48	2500	27500	4017	0.35	4200	30600
2586	0.54	2500	27500	3453	0.41	4200	30600
2335	0.60	2500	27500	3108	0.45	4200	30600
2054	0.68	2500	27500	2654	0.53	4200	30600
1824	0.77	2500	27500	2329	0.60	4200	30600
1631	0.86	2500	27500	2081	0.67	4200	30600
1332	1.1	2500	27500	1860	0.75	4200	30600
1191	1.2	2500	27500	1574	0.89	4200	30600
1032	1.4	2500	27500	1394	1.0	4200	30600
930	1.5	2500	27500	1223	1.1	4200	30600
831	1.7	2500	27500	1070	1.3	4200	30600
719	1.9	2500	27500	928	1.5	4200	30600
624	2.2	2500	27500	824	1.7	4200	30600
558	2.5	2500	27500	714	2.0	4200	34400
485	2.9	2500	27500	626	2.2	4200	30600
435	3.2	2450	27600	538	2.6	4200	30600
378	3.7	2450	27600	484	2.9	4200	30700
323	4.3	2400	27700	420	3.3	4200	30700
281	5.0	2400	27700	376	3.7	4200	30800
255	5.5	1980	28400	327	4.3	4200	30800
222	6.3	1980	28400	287	4.9	4200	30900
205	6.8	1980	28400	252	5.6	4200	31000
				219	6.4	4200	31000
				205	6.8	4200	31000

8.4 選型表注釋
8.4 Selection table

選型表的結構
Selection table for geared motors



圖例 Cuttine

※ 也可用于EEXe 電機。 ※EEXE motor is optional.

- 1) 實心軸底腳安裝減速機的徑向負荷
- 1) Overhung load specified for foot-mounted gear unit with solid shaft

注意: Notice:

對於特殊低輸出轉速驅動(多級減速電機), 電機功率必須與減速機的最大允許輸出地扭矩相對應。
In drives for particularly low output speeds (multi-stage geared motor), the motor power must belimited according to maximum permitted output torque of the gear unit.

輸出轉速 Output speed n_1 [1/min]	輸出扭矩 Output torque M_2 [N·m]	傳動比 Ratio i	徑向負荷 Permitted overhung load $F_{ra}^{(1)}$ [N]	使用系數 Service factor f_s	型號 Model
0.12kW					
0.12	4610	11267	28700	0.90	RCS 97 R57 D63S4
0.14	4210	10078	32800	1.00	RCSF 97 R57 D63S4
0.16	3500	8608	34200	1.20	RCSA 97 R57 D63S4
0.18	3090	7554	34800	1.35	RCSAF97 R57 D63S4
0.18	3120	7643	14400	0.80	
0.21	2630	6706	27200	0.95	RCS 87 R57 D63S4
0.23	2330	5875	27800	1.05	RCSF 87 R57 D63S4
0.27	1960	5187	28500	1.25	RCSA 87 R57 D63S4
0.30	1740	4606	28800	1.45	RCSAF87 R57 D63S4
0.36	1450	3872	29200	1.70	
0.39	1340	3540	9700	0.95	
0.45	1170	3098	12500	1.10	
0.58	1280	2374	11600	0.95	RCS 77 R37 D63S4
0.66	1130	2083	12900	1.10	RCSF 77 R37 D63S4
0.76	960	1813	14100	1.30	RCSA 77 R37 D63S4
0.79	910	1745	14300	1.35	RCSAF77 R37 D63S4
0.86	840	1600	14700	1.50	
0.98	735	1404	15200	1.70	
1.1	645	1245	15600	1.90	
1.0	665	1363	4800	0.85	RCS 67 R37 D63S4
1.2	575	1194	8160	1.00	RCSF 67 R37 D63S4
1.3	515	1045	8720	1.10	RCSA 67 R37 D63S4
1.5	445	914	9280	1.30	RCSAF67 R37 D63S4
1.7	400	809	9580	1.40	
1.9	355	712	9860	1.60	
2.2	295	615	10100	1.95	RCS 67 R37 D63S4
2.5	265	543	10300	2.2	RCSF 67 R37 D63S4
2.9	220	469	10400	2.6	RCSA 67 R37 D63S4
3.3	197	424	10500	2.9	RCSAF67 R37 D63S4
3.8	180	365	10500	3.2	
2.1	315	655	6930	0.95	
2.4	275	574	7290	1.10	
2.7	240	506	7540	1.25	RCS 57 R17 D63S4
3.2	210	438	7750	1.45	RCSF 57 R17 D63S4
3.6	183	388	7880	1.65	RCSA 57 R17 D63S4
4.1	163	336	7980	1.85	RCSAF57 R17 D63S4
4.7	140	294	8070	2.1	
5.1	134	269	8090	2.2	
3.2	210	438	5060	0.90	
3.6	183	388	5210	1.00	
4.1	162	336	5320	1.15	RCS 47 R17 D63S4
4.7	139	294	5450	1.35	RCSF 47 R17 D63S4
5.4	95	257	5680	1.95	RCSA 47 R17 D63S4
6.0	113	229	5570	1.65	RCSAF47 R17 D63S4
6.9	99	200	5630	1.90	
7.4	92	187	5660	2.0	
6.8	99	202	3000	0.95	
7.7	88	179	3000	1.05	RCS 37 R17 D63S4
8.7	78	158	3000	1.15	RCSF 37 R17 D63S4
9.6	72	144	3000	1.25	RCSA 37 R17 D63S4
12	59	118	3000	1.55	RCSAF37 R17 D63S4
13	55	110	3000	1.65	
4.5	143	201.00	8050	2.1	RCS 57 D63M6
4.9	133	184.80	8090	2.2	RCSF 57 D63M6
5.7	116	158.12	8150	2.5	RCSA 57 D63M6
6.6	103	137.05	8180	2.9	RCSAF57 D63M6
4.5	138	201.00	5490	1.30	RCS 47 D63M6
4.9	129	184.80	5540	1.40	RCSF 47 D63M6
5.7	112	158.12	5610	1.55	RCSA 47 D63M6
6.6	99	137.05	5660	1.75	RCSAF47 D63M6
7.0	93	128.10	5680	1.85	

輸出轉速 Output speed n_1 [1/min]	輸出扭矩 Output torque M_2 [N·m]	傳動比 Ratio i	徑向負荷 Permitted overhung load $F_{ra}^{(1)}$ [N]	使用系數 Service factor f_s	型號 Model
0.12kW					
6.9	95	201.00	5680	1.80	
7.5	89	184.80	5700	1.90	RCS 47 D63S4
8.7	77	158.12	5740	2.2	RCSF 47 D63S4
10	68	137.05	5780	2.5	RCSA 47 D63S4
11	64	128.10	5790	2.6	RCSAF47 D63S4
12	57	110.73	5810	3.0	
5.7	107	157.43	3000	0.85	
6.2	99	144.40	3000	0.95	RCS 37 D63M6
7.3	86	122.94	3000	1.05	RCSF 37 D63M6
8.5	76	106.00	3000	1.20	RCSA 37 D63M6
9.1	71	98.80	3000	1.30	RCSAF37 D63M6
10	64	86.36	3000	1.45	
8.8	74	157.43	3000	1.25	
9.6	68	144.40	3000	1.35	RCS 37 D63S4
11	60	122.94	3000	1.55	RCSF 37 D63S4
13	52	106.00	3000	1.70	RCSA 37 D63S4
14	49	98.80	3000	1.75	RCSAF37 D63S4
16	44	86.36	3000	1.95	
17	41	80.96	3000	2.1	
19	37	71.44	3000	2.3	
22	33	63.33	3000	2.5	
25	35	55.93	3000	2.3	
27	33	51.30	3000	2.5	
32	28	43.68	3000	2.9	
37	25	37.66	3000	3.2	RCS 37 D63S4
39	23	35.10	3000	3.4	RCSF 37 D63S4
45	20	30.68	3000	3.7	RCSA 37 D63S4
48	19	28.76	3000	3.9	RCSAF37 D63S4
54	17	25.38	3000	4.3	
61	15	22.50	3000	4.8	
69	14	19.89	3000	3.6	
76	13	18.24	3000	3.9	
89	11	15.53	2870	4.4	
0.18kW					
0.29	2970	4606	20900	0.85	RCS 87 R57D63M4
0.34	2480	3872	27500	1.00	RCSF 87 R57D63M4
					RCSA 87 R57D63M4
					RCSAF87 R57D63M4
0.38	2350	3475	27800	1.05	
0.45	1970	2905	28500	1.25	
0.51	1710	2586	28900	1.45	RCS 87 R57D63M4
0.57	1520	2335	29100	1.65	RCSF 87 R57D63M4
0.64	1320	2054	29400	1.90	RCSA 87 R57D63M4
0.72	1170	1824	29500	2.1	RCSAF87 R57D63M4
0.81	1050	1631	29600	2.4	
0.94	1220	1404	12200	1.00	RCS 77 R37D63M4
1.1	1070	1245	13000	1.15	RCSF 77 R37D63M4
					RCSA 77 R37D63M4
					RCSAF77 R37D63M4
1.2	990	1100	13900	1.25	RCS 77 R37D63M4
1.4	850	954	14700	1.45	RCSF 77 R37D63M4
1.6	745	837	15200	1.65	RCSA 77 R37D63M4
1.9	625	714	15600	2.0	RCSAF77 R37D63M4
2.1	555	637	15900	2.2	
2.3	500	574	16000	2.5	
1.6	660	809	5140	0.85	
1.9	580	712	8060	1.00	RCS 67 R37D63M4
2.2	490	615	8920	1.15	RCSF 67 R37D63M4
2.4	440	543	9330	1.30	RCSA 67 R37D63M4
2.8	370	469	9780	1.55	RCSAF67 R37D63M4
3.1	335	424	9970	1.70	
3.6	295	365	10100	1.90	

Table with 7 columns: Output speed, Output torque, Ratio, Permitted overhung load, Service factor, Model. Includes sections for 0.18kW and various gear ratios.

Table with 7 columns: Output speed, Output torque, Ratio, Permitted overhung load, Service factor, Model. Includes sections for 0.25kW and various gear ratios.

Table with 7 columns: Output speed, Output torque, Ratio, Permitted overhung load, Service factor, Model. Includes sections for 0.25kW and 0.37kW.

Table with 7 columns: Output speed, Output torque, Ratio, Permitted overhung load, Service factor, Model. Includes sections for 0.37kW and various gear ratios.

RCR..

RCF..

RCK..

RCS..

RCS系列斜齒輪-蝸輪蝸杆減速電機

RCP..

RCF..

RCK..

RCS..

RCS系列斜齒輪-蝸輪蝸杆減速電機

輸出轉速 Output speed n ₁ [1/min]	輸出轉矩 Output torque M ₂ [N·m]	傳動比 Ratio i	徑向負荷 Permitted overhung load F _a [N]	使用係數 Service factor f _s	型號 Model
0.37kW					
22	103	63.33	3000	0.80	
27	101	51.30	3000	0.80	
32	87	43.68	3000	0.95	
37	76	37.66	3000	1.05	
39	71	35.10	3000	1.10	
45	63	30.68	3000	1.20	
48	59	28.76	3000	1.30	RCS 37 D71D4
54	52	25.38	2940	1.40	RCSF 37 D71D4
61	47	22.50	2870	1.55	RCSA 37 D71D4
69	44	19.89	2610	1.20	RCSAF 37 D71D4
76	41	18.24	2570	1.30	
89	35	15.53	2500	1.45	
103	30	13.39	2420	1.60	
111	28	12.48	2390	1.70	
127	25	10.91	2320	1.95	
135	23	10.23	2280	2.0	
153	21	9.02	2220	2.2	
173	18	8.00	2150	2.5	
203	16	6.80	2070	2.7	
104	28	25.38	2540	2.2	
118	25	22.50	2460	2.3	
133	24	19.89	2290	1.85	
145	22	18.24	2250	2.0	RCS 37 D63L2
171	19	15.53	2160	2.3	RCSF 37 D63L2
198	16	13.39	2080	2.5	RCSA 37 D63L2
212	15	12.48	2040	2.7	RCSAF 37 D63L2
243	13	10.91	1970	3.0	
259	12	10.23	1940	3.1	
294	11	9.02	1870	3.3	
0.55kW					
1.0	2810	1332	25400	0.90	
1.1	2540	1191	27400	1.00	
1.3	2210	1032	28100	1.15	RCS 87 R57 D80K4
1.5	2040	930	28400	1.25	RCSF 87 R57 D80K4
1.6	1840	831	28700	1.35	RCSA 87 R57 D80K4
1.9	1600	719	29000	1.55	RCSAF 87 R57 D80K4
2.2	1400	624	29300	1.80	
2.4	1270	558	29400	1.95	
3.1	1010	435	29700	2.4	
2.7	1380	499	6920	0.90	
3.1	1210	438	12300	1.05	RCS 77 R37 D80K4
3.5	1070	389	13300	1.15	RCSF 77 R37 D80K4
4.2	910	327	14300	1.35	RCSA 77 R37 D80K4
4.7	820	289	14800	1.50	RCSAF 77 R37 D80K4
5.4	710	250	15300	1.75	
5.5	650	246	6600	0.90	RCS 67 R37 D80K4
6.2	580	221	8080	1.00	RCSF 67 R37 D80K4
6.9	530	198	8590	1.10	RCSA 67 R37 D80K4
8.1	455	168	9230	1.25	RCSAF 67 R37 D80K4
2.4	1450	288.00	29200	1.70	RCS 87 D90L8
2.6	1320	258.18	29400	1.85	RCSF 87 D90L8
3.1	1150	222.40	29600	2.1	RCSA 87 D90L8
					RCSAF 87 D90L8
3.1	1130	288.00	29600	2.2	RCS 87 D80N6
3.5	1020	258.18	29700	2.4	RCSF 87 D80N6
4.1	900	222.40	29800	2.7	RCSA 87 D80N6
4.4	820	202.96	29800	2.9	RCSAF 87 D80N6
3.0	1090	225.26	13200	1.15	RCS 77 D90L8
3.2	1040	214.00	13500	1.20	RCSF 77 D90L8
3.6	930	189.09	14200	1.35	RCSA 77 D90L8
4.2	810	161.60	14900	1.55	RCSAF 77 D90L8
3.5	960	256.47	14100	1.35	RCS 77 D80N6
4.0	850	225.26	14700	1.50	RCSF 77 D80N6
4.2	810	214.00	14800	1.55	RCSA 77 D80N6
4.8	730	189.09	15200	1.75	RCSAF 77 D80N6
5.6	635	161.60	15600	2.0	

輸出轉速 Output speed n ₁ [1/min]	輸出轉矩 Output torque M ₂ [N·m]	傳動比 Ratio i	徑向負荷 Permitted overhung load F _a [N]	使用係數 Service factor f _s	型號 Model
0.55kW					
5.3	660	256.47	15500	1.90	RCS 77 D80K4
6.0	590	225.26	15800	2.2	RCSF 77 D80K4
6.4	560	214.00	15800	2.3	RCSA 77 D80K4
7.2	505	189.09	16000	2.5	RCSAF 77 D80K4
6.3	520	217.41	8660	1.00	
7.2	465	190.11	9150	1.10	D71D4
7.5	445	180.60	9300	1.15	
8.6	395	158.45	9620	1.30	RCS 67 D80K4
10	340	134.40	9930	1.55	RCSF 67 D80K4
11	310	121.33	10100	1.65	RCSA 67 D80K4
13	275	106.75	10200	1.85	RCSAF 67 D80K4
13	265	100.80	10300	1.95	
16	230	85.83	10400	2.3	
18	230	75.06	10400	2.1	
21	205	65.63	10500	2.3	
9.6	340	94.08	6710	0.85	
11	305	84.00	7030	0.95	
13	265	71.75	7360	1.10	RCS 57 D80N6
13	250	67.20	7470	1.15	RCSF 57 D80N6
16	245	54.59	7520	1.10	RCSA 57 D80N6
19	215	47.32	7710	1.25	RCSAF 57 D80N6
20	200	44.22	7790	1.35	
24	176	38.23	7920	1.55	
8.6	370	158.12	6330	0.80	
9.9	330	137.05	6820	0.90	
11	310	128.10	7010	0.95	
12	270	110.73	7320	1.10	
14	235	94.08	7590	1.25	
16	210	84.00	7730	1.40	
19	184	71.75	7880	1.55	RCS 57 D80K4
20	174	67.20	7930	1.65	RCSF 57 D80K4
25	167	54.59	7960	1.45	RCSA 57 D80K4
29	146	47.32	8040	1.70	RCSAF 57 D80K4
31	137	44.22	8080	1.80	
36	120	38.23	8130	2.0	
42	103	32.48	7970	2.4	
47	92	29.00	7730	2.7	
55	79	24.77	7390	3.1	
59	75	23.20	7250	3.3	
67	69	20.33	6760	2.4	
16	205	84.00	5140	0.80	
19	179	71.75	5290	0.95	
20	169	67.20	5350	1.00	
25	165	54.59	5130	0.95	
29	144	47.32	5010	1.10	
31	135	44.22	4950	1.15	
36	118	38.23	4810	1.30	
42	101	32.48	4650	1.55	RCS 47 D80K4
47	91	29.00	4540	1.70	RCSF 47 D80K4
55	78	24.77	4380	2.0	RCSA 47 D80K4
59	74	23.20	4310	2.1	RCSAF 47 D80K4
67	69	20.33	3920	1.60	
77	60	17.62	3810	1.85	
83	56	16.47	3750	1.95	
96	49	14.24	3630	2.2	
112	42	12.10	3500	2.6	
126	37	10.80	3400	2.9	
147	32	9.23	3270	3.4	

輸出轉速 Output speed n ₁ [1/min]	輸出轉矩 Output torque M ₂ [N·m]	傳動比 Ratio i	徑向負荷 Permitted overhung load F _a [N]	使用係數 Service factor f _s	型號 Model
0.55kW					
44	94	30.68	2680	0.80	
47	89	28.76	2670	0.85	
54	79	25.38	2630	0.95	
60	70	22.50	2600	1.05	
71	60	19.13	2540	1.20	RCS 37 D80K4
88	53	15.53	2230	0.95	RCSF 37 D80K4
102	46	13.39	2200	1.10	RCSA 37 D80K4
109	43	12.48	2180	1.15	RCSAF 37 D80K4
125	37	10.91	2130	1.30	
133	35	10.23	2110	1.35	
151	31	9.02	2070	1.50	
170	28	8.00	2020	1.60	
200	24	6.80	1950	1.80	
94	46	28.76	2420	1.40	
106	41	25.38	2360	1.50	
120	37	22.50	2310	1.55	
136	34	19.89	2100	1.30	
148	32	18.24	2070	1.40	RCS 37 D71D2
174	27	15.53	2010	1.55	RCSF 37 D71D2
202	24	13.39	1950	1.75	RCSA 37 D71D2
216	22	12.48	1920	1.85	RCSAF 37 D71D2
248	19	10.91	1870	2.0	
264	18	10.23	1840	2.1	
299	16	9.02	1780	2.2	
338	14	8.00	1730	2.5	
397	12	6.80	1660	2.4	
0.75kW					
1.1	4840	1223	21300	0.85	
1.3	4240	1070	30700	1.00	
1.5	3650	928	33900	1.15	RCS 97 R57 D80N4
1.7	3230	824	34600	1.30	RCSF 97 R57 D80N4
1.9	2300	714	35900	1.85	RCSA 97 R57 D80N4
2.2	2450	626	35700	1.70	RCSAF 97 R57 D80N4
2.6	2110	538	36100	2.0	
2.8	1900	484	36300	2.2	
1.3	3030	1032	18700	0.85	
1.5	2780	930	25900	0.90	
1.7	2510	831	2750	1.00	RCS 87 R57 D80N4
1.9	2190	719	28100	1.15	RCSF 87 R57 D80N4
2.2	1920	624	28600	1.30	RCSA 87 R57 D80N4
2.5	1730	558	28900	1.45	RCSAF 87 R57 D80N4
3.2	1390	435	29300	1.75	
4.3	1060	323	29600	2.3	
4.2	1240	327	12000	1.00	RCS 77 R37 D80N4
4.8	1110	289	13100	1.10	RCSF 77 R37 D80N4
5.5	960	250	14000	1.30	RCSA 77 R37 D80N4
6.3	850	219	14700	1.45	RCSAF 77 R37 D80N4
2.4	2040	286.40	36100	2.1	RCS 97 D100M8
2.6	1890	262.22	36300	2.2	RCSF 97 D100M8
3.0	1690	231.67	36400	2.5	RCSA 97 D100M8
					RCSAF 97 D100M8
3.1	1540	288.00	29100	1.60	RCS 87 D90S6
3.5	1400	258.18	29300	1.75	RCSF 87 D90S6
4.1	1220	222.40	29500	1.95	RCSA 87 D90S6
4.4	1120	202.96	29600	2.1	RCSAF 87 D90S6
4.8	1050	288.00	29600	2.2	RCS 87 D80N4
5.3	950	258.18	29700	2.4	RCSF 87 D80N4
6.2	830	222.40	29800	2.8	RCSA 87 D80N4
6.8	765	202.96	29900	3.0	RCSAF 87 D80N4
4.0	1160	225.26	12700	1.10	RCS 77 D90S6
4.2	1110	214.00	13100	1.15	RCSF 77 D90S6
4.8	990	189.09	13900	1.30	RCSA 77 D90S6
5.6	860	161.60	14600	1.45	RCSAF 77 D90S6

輸出轉速 Output speed n ₁ [1/min]	輸出轉矩 Output torque M ₂ [N·m]	傳動比 Ratio i	徑向負荷 Permitted overhung load F _a [N]	使用係數 Service factor f _s	型號 Model
0.75kW					
5.4	890	256.47	14500	1.45	
6.1	790	225.26	14900	1.60	
6.4	755	214.00	15100	1.70	RCS 77D80N4
7.3	675	189.09	15400	1.90	RCSF 77D80N4
8.5	585	161.60	15800	2.2	RCSA 77D80N4
9.3	545	148.15	15900	2.3	RCSAF 77D80N4
11	480	130.00	16000	2.5	
11	460	123.20	16000	2.6	
13	405	107.83	16000	2.9	
7.3	625	190.11	7570	0.85	
7.6	595	180.60	7900		

輸出轉速 Output speed n_2 [1/min]	輸出轉矩 Output torque M_2 [N·m]	傳動比 Ratio i	徑向負荷 Permitted overhung load $F_{a,1}$ [N]	使用係數 Service factor f_s	型號 Model
0.75kW					
141	43	19.13	2090	1.05	
174	37	15.53	1860	1.15	
202	32	13.39	1820	1.30	
216	30	12.48	1800	1.35	RCS 37 D80K2
248	26	10.91	1760	1.50	RCSF 37 D80K2
264	25	10.23	1740	1.55	RCSA 37 D80K2
299	22	9.02	1690	1.65	RCSAF 37 D80K2
338	19	8.00	1650	1.80	
397	17	6.80	1590	1.75	
1.1kW					
1.7	4720	824	23300	0.90	RCS 97 R57 D90S4
2.0	3370	714	34400	1.25	RCSF 97 R57 D90S4
2.2	3590	626	34000	1.15	RCSA 97 R57 D90S4
2.6	3090	538	34800	1.35	RCSAF 97 R57 D90S4
2.9	2790	484	35200	1.50	
3.3	2430	420	35700	1.75	
2.2	2820	624	25400	0.90	
2.5	2550	558	27400	1.00	
2.9	2240	485	28000	1.10	RCS 87 R57 D90S4
3.2	2040	435	28400	1.20	RCSF 87 R57 D90S4
3.7	1790	378	28800	1.35	RCSA 87 R57 D90S4
4.3	1560	323	29100	1.55	RCSAF 87 R57 D90S4
5.0	1370	281	29300	1.75	
5.5	1460	255	29200	1.35	
6.3	1280	222	29400	1.55	
6.8	1200	205	29500	1.65	
6.4	1240	219	12000	1.00	RCS 77 R37 D90S4
					RCSF 77 R37 D90S4
					RCSA 77 R37 D90S4
					RCSAF 77 R37 D90S4
2.4	3030	286.40	34900	1.40	RCS 97 D100L8
2.6	2800	262.22	35200	1.50	RCSF 97 D100L8
2.9	2500	231.67	35600	1.70	RCSA 97 D100L8
3.5	2160	196.52	36000	1.95	RCSAF 97 D100L8
3.2	2310	286.40	35900	1.80	RCS 97 D90L6
3.5	2130	262.22	36000	1.95	RCSF 97 D90L6
4.0	1900	231.67	36300	2.2	RCSA 97 D90L6
					RCSAF 97 D90L6
3.2	2220	288.00	28100	1.10	RCS 87 D90L6
3.6	2010	258.18	28400	1.20	RCSF 87 D90L6
4.1	1760	222.40	28800	1.35	RCSA 87 D90L6
4.5	1620	202.96	29000	1.45	RCSAF 87 D90L6
4.9	1520	288.00	29100	1.50	
5.4	1370	258.18	29300	1.65	RCS 87 D90S4
6.3	1200	222.40	29500	1.90	RCSF 87 D90S4
6.9	1100	202.96	29600	2.0	RCSA 87 D90S4
7.8	990	180.00	29700	2.2	RCSAF 87 D90S4
9.2	840	151.30	29800	2.5	
6.2	1150	225.26	12800	1.10	
6.5	1100	214.00	13200	1.15	
7.4	980	189.09	13900	1.30	RCS 77 D90S4
8.7	850	161.60	14700	1.50	RCSF 77 D90S4
9.4	785	148.15	15000	1.60	RCSA 77 D90S4
11	695	130.00	15400	1.75	RCSAF 77 D90S4
11	665	123.20	15500	1.80	
13	585	107.83	15800	2.0	
14	535	97.14	15900	2.1	
16	470	85.22	16000	2.3	

輸出轉速 Output speed n_2 [1/min]	輸出轉矩 Output torque M_2 [N·m]	傳動比 Ratio i	徑向負荷 Permitted overhung load $F_{a,1}$ [N]	使用係數 Service factor f_s	型號 Model
1.1kW					
12	605	121.33	7790	0.85	
13	540	106.75	8490	0.95	
14	515	100.80	8740	1.00	
16	445	85.83	9300	1.15	
18	405	78.00	9550	1.30	RCS 67 D90S4
21	400	65.63	9610	1.20	RCSF 67 D90S4
22	380	62.35	9720	1.25	RCSA 67 D90S4
26	335	54.70	9560	1.45	RCSAF 67 D90S4
30	285	46.40	9240	1.65	
33	260	41.89	9040	1.85	
38	230	36.85	8780	2.1	
40	220	34.80	8660	2.2	
47	187	29.63	8330	2.6	
20	360	71.75	6480	0.80	RCS 57 D90S4
21	340	67.20	6710	0.85	RCSF 57 D90S4
25	290	56.61	7180	0.90	RCSA 57 D90S4
30	285	47.32	7220	0.85	RCSAF 57 D90S4
32	265	44.22	7360	0.90	
37	235	38.23	7410	1.05	
43	200	32.48	7170	1.25	
48	179	29.00	7000	1.35	RCS 57 D90S4
57	154	24.77	6760	1.60	RCSF 57 D90S4
60	145	23.20	6660	1.70	RCSA 57 D90S4
72	123	19.54	6390	1.75	RCSAF 57 D90S4
79	117	17.62	5870	1.45	
85	110	16.47	5780	1.55	
98	95	14.24	5610	1.75	
116	82	12.10	5400	2.1	
130	73	10.80	5260	2.3	
152	63	9.23	5050	2.7	
48	177	29.00	3720	0.90	
57	153	24.77	3670	1.00	RCS 47 D90S4
60	143	23.20	3640	1.05	RCSF 47 D90S4
72	122	19.54	3560	1.20	RCSA 47 D90S4
79	117	17.62	3070	0.95	RCSAF 47 D90S4
85	109	16.47	3060	1.00	
98	95	14.24	3030	1.15	
116	81	12.10	2980	1.35	RCS 47 D90S4
130	73	10.80	2940	1.50	RCSF 47 D90S4
152	63	9.23	2870	1.75	RCSA 47 D90S4
162	59	8.64	2840	1.85	RCSAF 47 D90S4
192	50	7.28	2750	2.1	
175	54	8.00	1570	0.85	RCS 37 D90S4
206	46	6.80	1580	0.95	RCSF 37 D90S4
					RCSA 37 D90S4
					RCSAF 37 D90S4
202	47	13.39	1590	0.85	
216	44	12.48	1580	0.90	RCS 37 D80N2
248	39	10.91	1570	1.00	RCSF 37 D80N2
264	36	10.23	1560	1.05	RCSA 37 D80N2
299	32	9.02	1540	1.10	RCSAF 37 D80N2
338	28	8.00	1510	1.25	
397	24	6.80	1470	1.20	
1.5kW					
2.0	4590	714	29100	0.90	
2.2	4890	626	19100	0.85	RCS 97 R57 D90L4
2.6	4220	538	31100	1.00	RCSF 97 R57 D90L4
2.9	3810	484	33600	1.10	RCSA 97 R57 D90L4
3.4	3310	420	34500	1.25	RCSAF 97 R57 D90L4
3.8	2990	376	35000	1.40	
4.3	2630	327	35500	1.60	
2.9	3060	485	17200	0.80	
3.2	2780	435	25900	0.90	
3.7	2450	378	27600	1.00	RCS 87 R57 D90L4
4.4	2130	323	28200	1.15	RCSF 87 R57 D90L4
5.0	1870	281	28600	1.30	RCSA 87 R57 D90L4
5.5	2000	255	28400	1.00	RCSAF 87 R57 D90L4
6.3	1750	222	28800	1.15	
6.9	1630	205	29000	1.20	

輸出轉速 Output speed n_2 [1/min]	輸出轉矩 Output torque M_2 [N·m]	傳動比 Ratio i	徑向負荷 Permitted overhung load $F_{a,1}$ [N]	使用係數 Service factor f_s	型號 Model
1.5kW					
2.4	4030	286.40	33100	1.05	RCS 97 D112M8
2.7	3720	262.22	33700	1.15	RCSF 97 D112M8
3.0	3330	231.67	34400	1.25	RCSA 97 D112M8
3.6	2870	196.52	35200	1.45	RCSAF 97 D112M8
3.2	3150	286.40	34700	1.35	RCS 97 D100M6
3.5	2910	262.22	35100	1.45	RCSF 97 D100M6
4.0	2600	231.67	35500	1.60	RCSA 97 D100M6
4.7	2230	196.52	35900	1.90	RCSAF 97 D100M6
4.9	2130	286.40	36000	1.90	RCS 97 D90L4
5.4	1970	262.22	36200	2.0	RCSF 97 D90L4
6.1	1760	231.67	36400	2.3	RCSA 97 D90L4
7.2	1510	196.52	36600	2.7	RCSAF 97 D90L4
3.6	2740	258.18	26600	0.90	RCS 87 D100M6
4.1	2390	222.40	27700	1.00	RCSF 87 D100M6
4.5	2200	202.96	28100	1.10	RCSA 87 D100M6
5.1	1980	180.00	28500	1.20	RCSAF 87 D100M6
4.9	2060	288.00	28300	1.10	
5.5	1860	258.18	28700	1.20	
6.3	1630	222.40	29000	1.40	
6.9	1500	202.96	29200	1.50	RCS 87 D90L4
7.8	1340	180.00	29400	1.65	RCSF 87 D90L4
9.3	1140	151.30	29600	1.90	RCSA 87 D90L4
10	1060	139.05	29600	2.0	RCSAF 87 D90L4
11	950	123.48	29700	2.2	
13	850	110.40	29800	2.3	
14	770	99.26	29900	2.5	
7.5	1330	189.09	10600	0.95	
8.7	1150	161.60	12700	1.10	
9.5	1060	148.15	13400	1.15	
11	940	130.00	14100	1.30	
11	900	123.20	14400	1.35	
13	795	107.83	14900	1.45	
15	725	97.14	15300	1.60	RCS 77 D90L4
17	640	85.22	15400	1.70	RCSF 77 D90L4
19	650	75.09	14100	1.70	RCSA 77 D90L4
20	620	71.33	14000	1.80	RCSAF 77 D90L4
21	510	66.67	14600	2.0	
22	550	63.03	13700	2.0	
25	440	56.92	14000	2.3	
26	470	53.87	13200	2.3	
29	435	49.38	13000	2.5	
33	385	43.33	12600	2.9	
16	600	85.83	7850	0.85	RCS 67 D90L4
18	550	78.00	8390	0.95	RCSF 67 D90L4
21	540	65.63	8510	0.90	RCSA 67 D90L4
					RCSAF 67 D90L4
23	515	62.35	8740	0.95	
26	455	54.70	8810	1.05	
30	390	46.40	8590	1.25	
34	355	41.89	8450	1.35	
38	310	36.85	8250	1.55	
41	295	34.80	8160	1.60	RCS 67 D90L4
48	255	29.63	7900	1.90	RCSF 67 D90L4
52	230	26.93	7740	2.1	RCSA 67 D90L4
58	220	24.44	7000	1.55	RCSAF 67 D90L4
61	210	23.22	6950	1.60	
69	186	20.37	6790	1.85	
82	159	17.28	6580	2.1	
90	144	15.60	6440	2.4	
103	127	13.73	6260	2.7	

輸出轉速 Output speed n_2 [1/min]	輸出轉矩 Output torque M_2 [N·m]	傳動比 Ratio i	徑向負荷 Permitted overhung load $F_{a,1}$ [N]	使用係數 Service factor f_s	型號 Model
1.5kW					
43	270	32.48	6630	0.90	
49	245	29.00	6520	1.00	
57	210	24.77	6340	1.15	
61	196	23.20	6270	1.25	
72	167	19.54	6060	1.30	RCS 57 D90L4
80	159	17.62	5430	1.05	RCSF 57 D90L4
86	149	16.47	5380	1.15	RCSA 57 D90L4
99	129	14.24	5250	1.30	RCSAF 57 D90L4
117	110</				

輸出轉速 Output speed n _n [1/min]	輸出轉矩 Output torque M _n [N·m]	傳動比 Ratio i	徑向負荷 Permitted overhung load F _{rn} [N]	使用係數 Service factor f _s	型號 Model	
2.2kW						
11	1390	130.00	6140	0.85		
11	1320	123.20	11100	0.90		
13	1170	107.83	12600	1.00		
15	1060	97.14	13400	1.10		
17	940	85.22	14100	1.15		
19	840	75.20	13800	1.30		
21	745	66.67	13500	1.40		
22	810	63.03	12400	1.35	RCS 77	D100M4
25	645	56.92	13100	1.55	RCSF 77	D100M4
26	695	53.87	12100	1.60	RCSA 77	D100M4
29	635	49.38	11900	1.75	RCSAF 77	D100M4
33	560	43.33	11700	1.95		
34	535	41.07	11600	2.1		
39	470	35.94	11300	2.3		
44	425	32.38	11000	2.6		
50	375	28.41	10700	2.8		
56	330	25.07	10400	3.1		
62	310	22.89	9490	2.3		
67	285	20.99	9340	2.5		
30	570	46.40	7480	0.85		
34	515	41.89	7440	0.95		
38	460	36.85	7360	1.05		
41	435	34.80	7320	1.10		
48	370	29.63	7180	1.30		
52	340	26.93	7080	1.40	RCS 67	D100M4
60	295	23.33	6920	1.60	RCSF 67	D100M4
69	275	20.37	6060	1.25	RCSA 67	D100M4
82	235	17.28	5960	1.45	RCSAF 67	D100M4
90	210	15.60	5880	1.60		
103	186	13.73	5770	1.85		
109	176	12.96	5710	1.95		
128	151	11.03	5550	2.3		
141	137	10.03	5450	2.5		
162	119	8.69	5300	2.8		
99	190	14.24	4640	0.90		
117	162	12.10	4580	1.05	RCS 57	D100M4
131	145	10.80	4520	1.15	RCSF 57	D100M4
153	124	9.23	4420	1.35	RCSA 57	D100M4
163	117	8.64	4380	1.40	RCSAF 57	D100M4
194	99	7.28	4250	1.50		
3.0kW						
4.9	4710	287	23700	0.90	RCS 97R57 D100L4	
5.6	4140	252	32400	1.00	RCSF 97R57 D100L4	
6.4	3620	219	33900	1.15	RCSA 97R57 D100L4	
6.8	3400	205	34300	1.25	RCSAF 97R57 D100L4	
4.9	4290	286.40	32600	0.95		
5.3	3960	262.22	33300	1.00		
6.0	3530	231.67	34100	1.15		
7.1	3040	196.52	34900	1.30		
7.7	2810	180.95	35200	1.40	RCS 97	D100L4
8.7	2530	161.74	35600	1.50	RCSF 97	D100L4
9.6	2300	145.60	35900	1.65	RCSA 97	D100L4
11	2090	131.85	36100	1.75	RCSAF 97	D100L4
12	1870	116.92	36300	1.90		
13	1700	105.71	36400	2.0		
16	1450	89.60	36600	2.2		
17	1470	80.85	36600	2.2		

輸出轉速 Output speed n _n [1/min]	輸出轉矩 Output torque M _n [N·m]	傳動比 Ratio i	徑向負荷 Permitted overhung load F _{rn} [N]	使用係數 Service factor f _s	型號 Model	
3.0kW						
7.8	2700	180.00	27100	0.80		
9.2	2300	151.30	27900	0.95		
10	2130	139.05	28200	1.00		
11	1900	123.48	28600	1.10		
13	1720	110.40	28900	1.15		
14	1550	99.26	29100	1.25		
16	1360	86.15	29300	1.40	RCS 87	D100L4
17	1460	81.76	29200	1.10	RCSF 87	D100L4
18	1230	77.14	29500	1.50	RCSA 87	D100L4
20	1260	70.43	29400	1.25	RCSAF 87	D100L4
22	1160	64.27	29500	1.40		
25	1030	57.00	29700	1.55		
29	870	47.91	29800	1.85		
32	800	44.03	29800	2.0		
36	715	39.10	29900	2.2		
40	640	34.96	29900	2.5		
16	1290	85.22	11500	0.85	RCS 77	D100L4
19	1150	75.20	12500	0.95	RCSF 77	D100L4
21	1020	66.67	12400	1.00	RCSA 77	D100L4
22	1110	63.03	10900	1.00	RCSAF 77	D100L4
25	880	56.92	12100	1.10		
26	950	53.87	10800	1.15		
28	880	49.38	10800	1.25		
32	770	43.33	10700	1.40		
34	735	41.07	10600	1.50		
39	645	35.94	10400	1.70		
43	585	32.38	10300	1.85	RCS 77	D100L4
49	515	28.41	10100	2.0	RCSF 77	D100L4
56	455	25.07	9840	2.2	RCSA 77	D100L4
61	430	22.89	8680	1.65	RCSAF 77	D100L4
67	395	20.99	8590	1.80		
76	345	18.42	8450	2.0		
80	330	17.45	8390	2.2		
92	290	15.28	8210	2.5		
102	260	13.76	8060	2.7		
116	230	12.07	7870	3.1		
131	205	10.65	7670	3.5		
40	595	34.80	6350	0.80	RCS 67	D100L4
47	510	29.63	6350	0.95	RCSF 67	D100L4
52	465	26.93	6330	1.05	RCSA 67	D100L4
					RCSAF 67	D100L4
60	405	23.33	6270	1.20		
69	375	20.37	5230	0.90		
81	320	17.28	5250	1.05		
90	290	15.60	5240	1.15	RCS 67	D100L4
102	255	13.73	5210	1.35	RCSF 67	D100L4
108	240	12.96	5190	1.40	RCSA 67	D100L4
127	205	11.03	5100	1.65	RCSAF 67	D100L4
140	188	10.03	5050	1.80		
161	164	8.69	4940	2.0		
185	143	7.56	4830	2.1		
130	199	10.80	3990	0.85	RCS 57	D100L4
152	171	9.23	3970	1.00	RCSF 57	D100L4
162	160	8.64	3960	1.05	RCSA 57	D100L4
192	136	7.28	3900	1.10	RCSAF 57	D100L4
4.0kW						
6.5	4780	219	22700	0.90	RCS 97R57 D112M4	
6.9	4490	205	27300	0.95	RCSF 97R57 D112M4	
					RCSA 97R57 D112M4	
					RCSAF 97R57 D112M4	

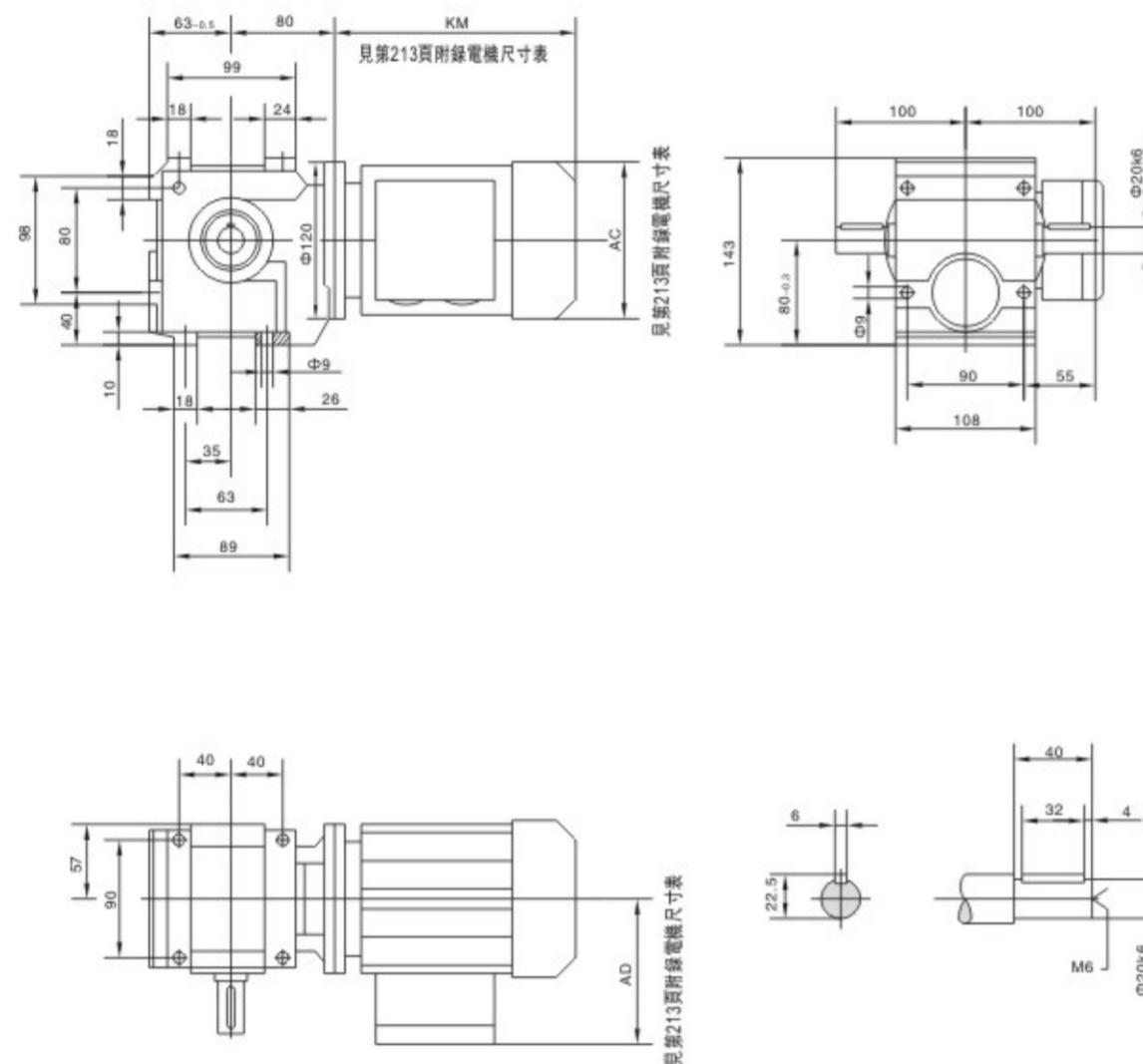
輸出轉速 Output speed n _n [1/min]	輸出轉矩 Output torque M _n [N·m]	傳動比 Ratio i	徑向負荷 Permitted overhung load F _{rn} [N]	使用係數 Service factor f _s	型號 Model	
4.0kW						
6.1	4650	231.67	28300	0.85		
7.2	3990	196.52	33200	1.00		
7.8	3700	180.95	33800	1.05		
8.8	3330	161.74	34400	1.15		
9.8	3020	145.60	34900	1.25	RCS 97 D112M4	
11	2750	131.85	35300	1.35	RCSF 97 D112M4	
12	2460	116.92	35700	1.45	RCSA 97 D112M4	
13	2230	105.71	35900	1.55	RCSAF 97 D112M4	
16	1910	89.60	36300	1.70		
18	1940	80.85	36200	1.65		
20	1720	71.43	36400	1.90		
23	1470	60.59	36600	2.2		
25	1350	55.79	36700	2.4		
12	2510	123.48	27500	0.80		
13	2260	110.40	28000	0.90		
14	2040	99.26	28400	0.95		
16	1790	86.15	28800	1.05		
18	1610	77.14	29000	1.15		
20	1660	70.43	28900	0.95	RCS 87 D112M4	
22	1520	64.27	29100	1.05	RCSF 87 D112M4	
25	1350	57.00	29300	1.20	RCSA 87 D112M4	
30	1150	47.91	29500	1.40	RCSAF 87 D112M4	
32	1060	44.03	29600	1.50		
36	940	39.10	29700	1.70		
41	840	34.96	29800	1.90		
45	760	31.43	29100	2.1		
52	665	27.28	28200	2.4		
56	635	25.50	26600	1.95		
25	1160	56.92	10800	0.85	RCS 77 D112M4	
26	1250	53.87	9250	0.90	RCSF 77 D112M4	
29	1150	49.38	9320	0.95	RCSA 77 D112M4	
33	1020	43.33	9370	1.10	RCSAF 77 D112M4	
35	960	41.07	9370	1.15		
40	850	35.94	9340	1.30		
44	765	32.38	9290	1.40		
50	675	28.41	9190	1.55		
57	600	25.07	9070	1.70		
62	565	22.89	7650	1.25	RCS 77 D112M4	
68	520	20.99	7650	1.35	RCSF 77 D112M4	
77	455	18.42	7620	1.55	RCSA 77 D112M4	
81	435	17.45	7590	1.65	RCSAF 77 D112M4	
93	380	15.28	7510	1.85		
103	345	13.76	7430	2.1		
118	300	12.07	7310	2.4		
133	265	10.65	7170	2.7		
150	235	9.44	7030	3.1		
176	205	8.06	6830	3.3		
82	420	17.28	3810	0.80		
91	380	15.60	4180	0.90		
103	335	13.73	4500	1.00	RCS 67 D112M4	
110	320	12.96	4520	1.05	RCSF 67 D112M4	
129	270	11.03	4530	1.25	RCSA 67 D112M4	
142	245	10.03	4520	1.35	RCSAF 67 D112M4	
163	215	8.69	4490	1.55		
188	188	7.56	4430	1.55		
5.5kW						
8.8	4550	161.74	29900	0.85		
9.8	4130	145.60	32900	0.90		
11	3760	131.85	33700	0.95		
12	3360	116.92	34400	1.05		
14	3050	105.71	34900	1.15		
16	2610	89.60	35500	1.25	RCS 97 D132S4	
18	2290	78.26	35900	1.35	RCSF 97 D132S4	
20	2350	71.43	35800	1.40	RCSA 97 D132S4	
22	1930	65.45	36200	1.50	RCSAF 97 D132S4	
24	2000	60.59	36200	1.65		
26	1850	55.79	36300	1.80		
29	1660	49.87	36500	2.0		
32	1500	44.89	36600	2.2		
35	1360	40.65	36700	2.4		

輸出轉速 Output speed n _n [1/min]	輸出轉矩 Output torque M _n [N·m]	傳動比 Ratio i	徑向負荷 Permitted overhung load F _{rn} [N]	使用係數 Service factor f _s	型號 Model	
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輸出轉速 Output speed n ₁ [1/min]	輸出轉矩 Output torque M ₂ [N·m]	傳動比 Ratio i	徑向負荷 Permitted overhung load F _{ra} [N]	使用係數 Service factor f _s	型號 Model	
7.5kW						
50	1260	28.41	6240	0.85	RCS 77D132M4	
57	1110	25.07	6450	0.90	RCSF 77D132M4	
64	990	22.22	6600	1.00	RCSA 77D132M4	
78	850	18.42	1860	0.85	RCSAF 77D132M4	
82	810	17.45	2290	0.90	RCS 77D132M4 RCSF 77D132M4 RCSA 77D132M4 RCSAF 77D132M4	
94	705	15.28	3250	1.00		
104	640	13.76	3890	1.10		
118	560	12.07	4570	1.30		
134	495	10.65	5110	1.45		
151	440	9.44	5540	1.65	RCS 77D132M4 RCSF 77D132M4 RCSA 77D132M4 RCSAF 77D132M4	
177	380	8.06	5560	1.80		
9.2kW						
18	3810	78.26	33600	0.80	RCS 97D132ML4	
22	3210	65.45	34600	0.90	RCSF 97D132ML4	
26	3070	55.79	34800	1.05	RCSA 97D132ML4 RCSAF 97D132ML4	
29	2750	49.87	35300	1.20	RCS 97D132ML4 RCSF 97D132ML4 RCSA 97D132ML4 RCSAF 97D132ML4	
32	2480	44.89	35600	1.35		
35	2260	40.65	35700	1.45		
40	2010	36.05	35000	1.65		
44	1820	32.60	34400	1.75		
55	1510	26.39	30700	1.70		
61	1350	23.59	30200	1.90		
68	1220	21.23	29700	2.1		
75	1110	19.23	29200	2.3		
84	980	17.05	28500	2.6		
93	890	15.42	28000	2.8		
110	755	13.07	27000	3.1		
126	660	11.41	26200	3.3		
41	1910	34.96	25600	0.85	RCS 87D132ML4	
46	1730	31.43	25300	0.95	RCSF 87D132ML4	
53	1500	27.28	24800	1.05	RCSA 87D132ML4	
59	1350	24.43	24400	1.20	RCSAF 87D132ML4	
71	1120	20.27	23700	1.40	RCS 87D132ML4 RCSF 87D132ML4 RCSA 87D132ML4 RCSAF 87D132ML4	
73	1120	19.70	21600	1.10		
82	1000	17.49	21300	1.25		
92	890	15.64	21000	1.40		
102	800	14.06	20700	1.55		
118	700	12.21	20200	1.75		
132	625	10.93	19800	2.0		
159	520	9.07	19100	2.2		
183	455	7.88	18600	2.2		
76	1040	18.97	5760	0.90	RCS 77D132ML4 RCSF 77D132ML4 RCSA 77D132ML4 RCSAF 77D132ML4	
105	780	13.76	1350	0.90		
119	685	12.07	2290	1.05		
135	605	10.65	3060	1.20		
152	535	9.44	3690	1.35		
179	460	8.06	4360	1.50		
11.0kW						
26	3670	55.79	33800	0.90		RCS 97D160M4 RCSF 97D160M4 RCSA 97D160M4 RCSAF 97D160M4
29	3290	49.87	34500	1.00		
32	2970	44.89	34800	1.10		
35	2700	40.65	34400	1.20		
40	2400	36.05	33800	1.40		
44	2170	32.60	33300	1.45		
55	1810	26.39	29400	1.45		
61	1620	23.59	29000	1.60		
68	1460	21.23	28600	1.80		
75	1320	19.23	28200	1.95		
84	1180	17.05	27600	2.2		
93	1070	15.42	27200	2.3		
110	900	13.07	26400	2.6		
126	790	11.41	25700	2.8		
53	1800	27.28	23700	0.90	RCS 87D160M4	
59	1610	24.43	23400	1.00	RCSF 87D160M4	
71	1340	20.27	22800	1.20	RCSA 87D160M4 RCSAF 87D160M4	

輸出轉速 Output speed n ₁ [1/min]	輸出轉矩 Output torque M ₂ [N·m]	傳動比 Ratio i	徑向負荷 Permitted overhung load F _{ra} [N]	使用係數 Service factor f _s	型號 Model
11.0kW					
73	1340	19.70	20400	0.95	RCS 87D160M4 RCSF 87D160M4 RCSA 87D160M4 RCSAF 87D160M4
82	1190	17.49	20200	1.05	
92	1070	15.64	20000	1.15	
102	960	14.06	19800	1.30	
118	840	12.21	19400	1.50	
132	750	10.93	19100	1.65	
159	625	9.07	18600	1.85	
183	545	7.88	18100	1.85	
15.0kW					
33	4000	44.89	31400	0.85	RCS 97D160L4
36	3630	40.65	31300	0.90	RCSF 97D160L4
41	3230	36.05	31000	1.00	RCSA 97D160L4 RCSAF 97D160L4
45	2920	32.60	30800	1.10	RCS 97D160L4 RCSF 97D160L4 RCSA 97D160L4 RCSAF 97D160L4
55	2430	26.39	26400	1.05	
62	2180	23.59	26300	1.20	
69	1970	21.23	26200	1.30	
76	1780	19.23	26000	1.45	
86	1580	17.05	25700	1.60	
95	1430	15.42	25400	1.70	
112	1220	13.07	24800	1.90	
128	1060	11.41	24300	2.1	
153	890	9.55	23600	2.3	
177	775	8.26	22900	2.3	
93	1430	15.64	17900	0.85	RCS 87D160L4
104	1290	14.06	17900	0.95	RCSF 87D160L4
120	1120	12.21	17800	1.10	RCSA 87D160L4 RCSAF 87D160L4
134	1010	10.93	17600	1.25	RCS 87D160L4
161	840	9.07	17300	1.35	RCSF 87D160L4
185	730	7.88	17000	1.40	RCSA 87D160L4 YSAF 87D160L4
18.5kW					
41	3970	36.05	28700	0.85	RCS 97D180M4 RCSF 97D180M4 RCSA 97D180M4 RCSAF 97D180M4
45	3590	32.60	28600	0.90	
53	3060	27.63	28400	1.00	
61	2680	24.13	28100	1.05	
69	2420	21.23	24100	1.10	
76	2190	19.23	24100	1.20	
86	1950	17.05	24000	1.30	
95	1760	15.42	23900	1.40	
112	1500	13.07	23500	1.55	
128	1310	11.41	23200	1.70	
153	1100	9.55	22600	1.85	
177	950	8.26	22100	1.85	
22kW					
53	3630	27.63	26600	0.85	RCS 97D180L4 RCSF 97D180L4 RCSA 97D180L4 RCSAF 97D180L4
61	3180	24.13	26500	0.90	
69	2870	21.23	19800	0.90	
76	2600	19.23	21800	1.00	
86	2310	17.05	22300	1.10	
95	2090	15.42	22400	1.20	
112	1780	13.07	22300	1.30	
128	1560	11.41	22100	1.40	
153	1300	9.55	21700	1.55	
177	1130	8.26	21300	1.55	

RCS37..



RCP..

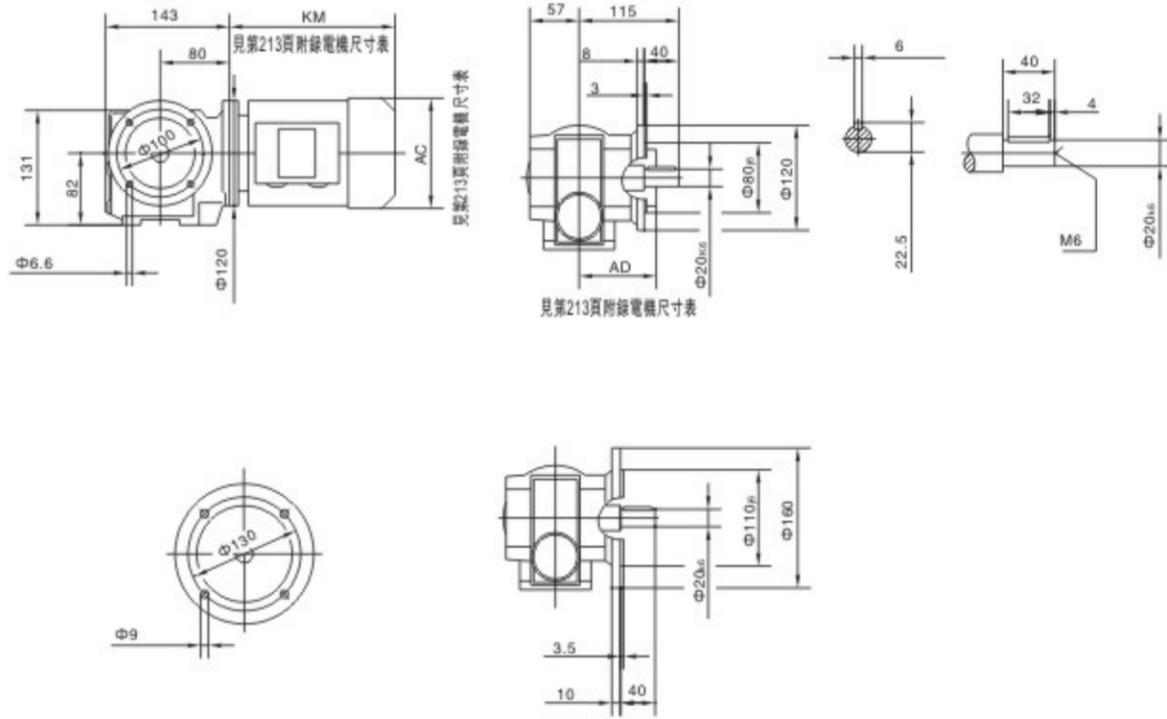
RCF..

RCK..

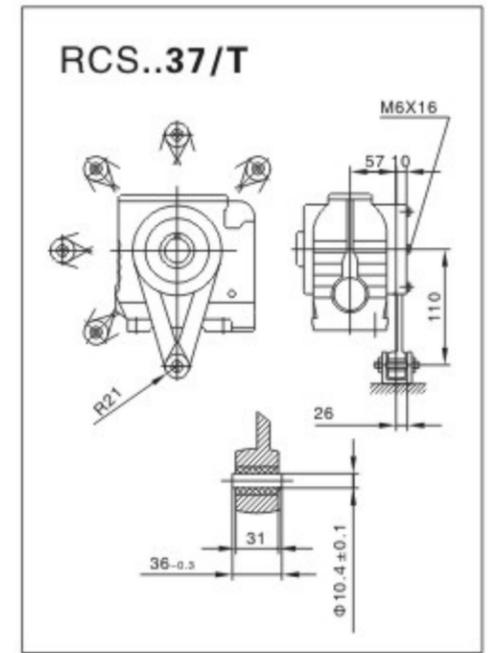
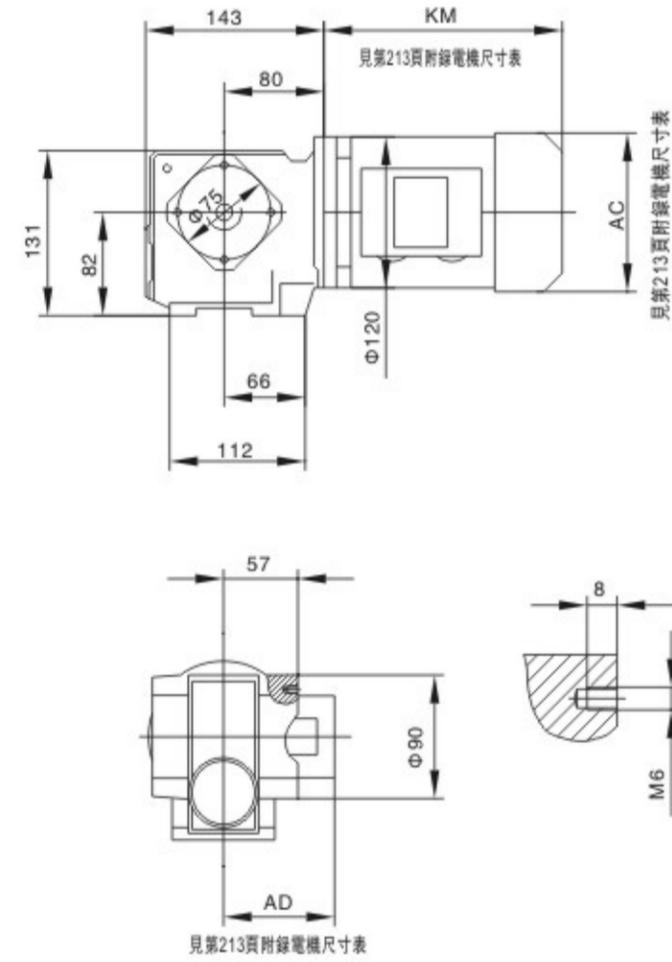
RCS..

RCS系列斜齒輪-蝸輪蝸杆減速電機

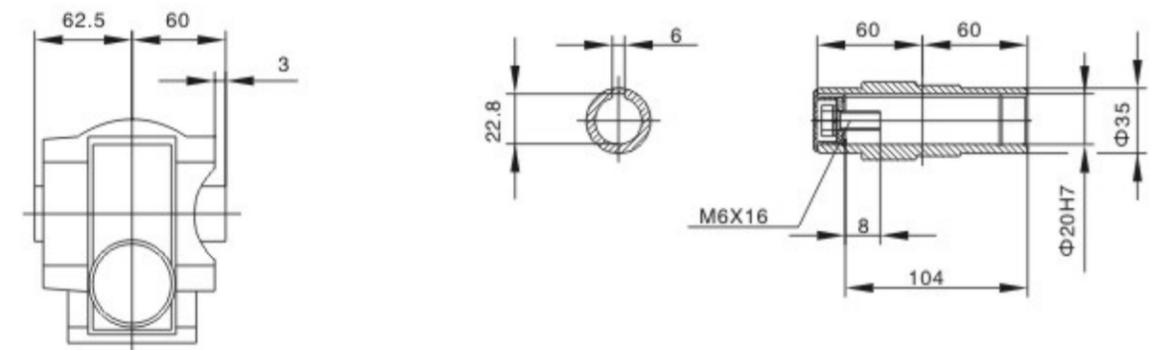
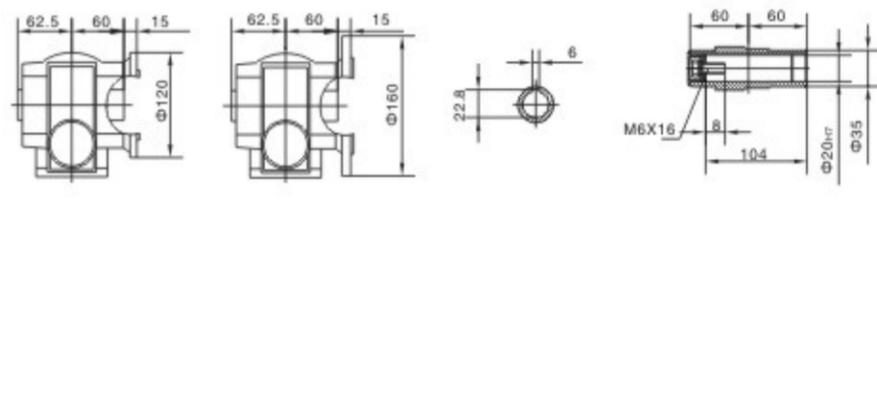
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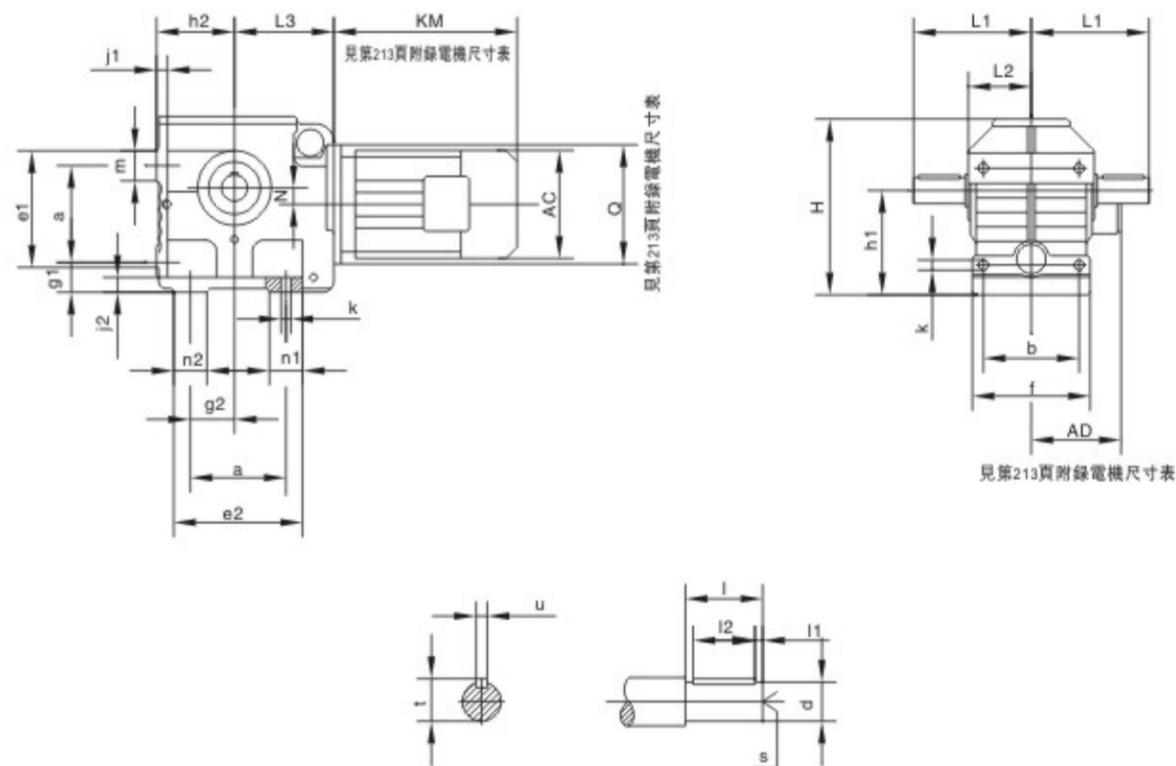
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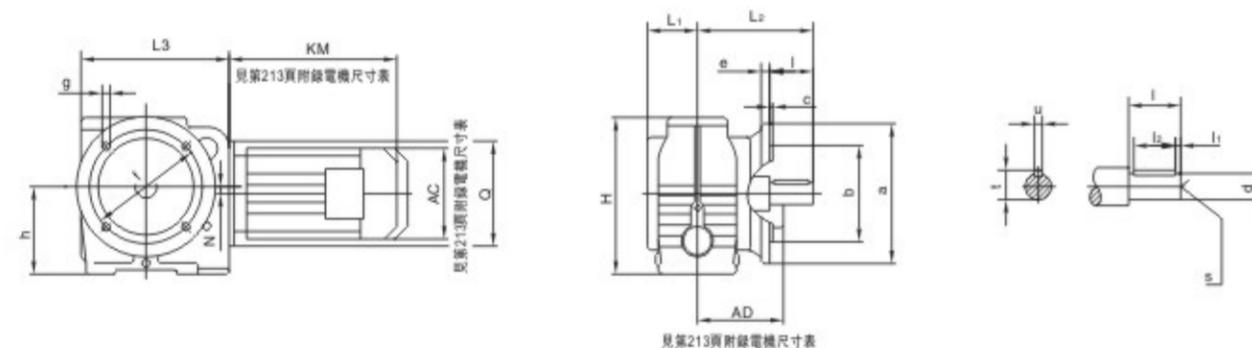
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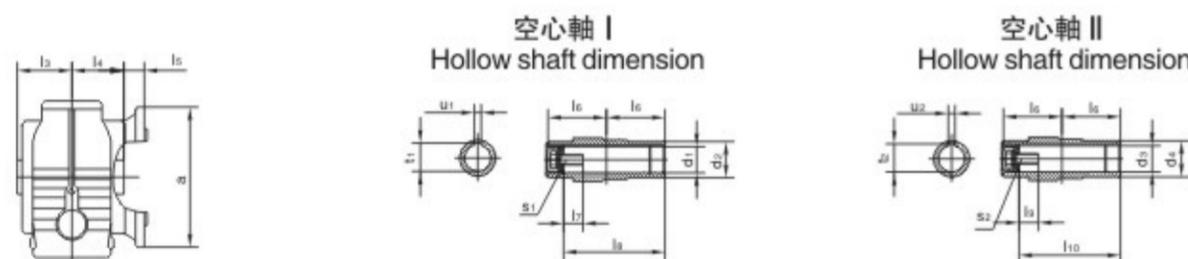
RCS47..~RCS97..



RCSF47..~RCSF97..



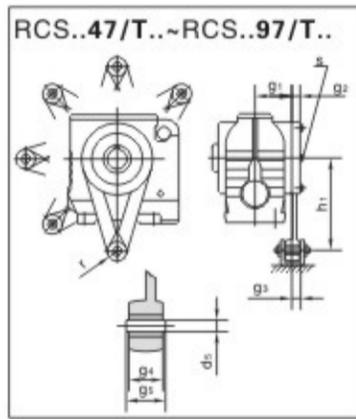
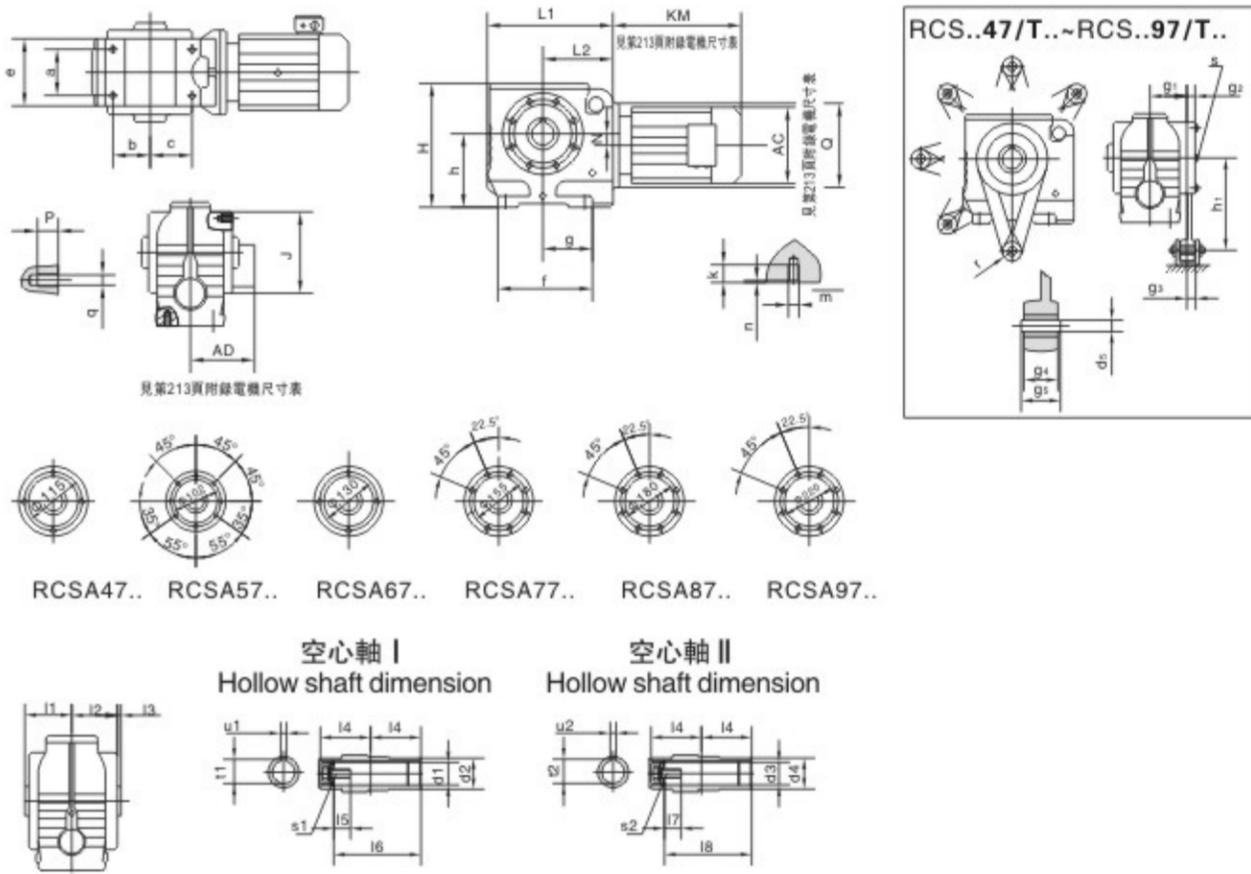
RCSAF47..~RCSAF97..



型號 Model	a b	e1 e2 f	g1 g2	h1 h2	j k	m n1 n2	軸伸尺寸 Shaft dimension				L1 L2 L3	H	N Q
							d l	l1 l2	s	t u			
RCS47..	80	105	35	100 _{-0.5}	12	25	25k6	5	M10	28	115	165	8
	100	112	35	75 _{-0.5}	15	30	50	40	M10	8	60		
	120	120	35	75 _{-0.5}	11	30	50	40	M10	8	96		
RCS57..	100	130	35	112 _{-0.5}	12	30	30k6	3.5	M10	33	134	189	20
	110	130	45	80 _{-0.5}	15	30	60	50	M10	8	71		
	136	136	45	80 _{-0.5}	11	30	60	50	M10	8	107		
RCS67..	130	170	40	140 _{-0.5}	15	40	35k6	7	M12	38	160	236	22
	130	175	60	106 _{-0.5}	20	45	70	56	M12	10	85.5		
	160	160	60	106 _{-0.5}	13.5	45	70	56	M12	10	135		
RCS77..	135	177	70	180 _{-0.5}	25	42	45k6	5	M16	48.5	195	301	34
	150	204	75	125 _{-0.5}	25	50	90	80	M16	14	101		
	185	185	75	125 _{-0.5}	17.5	69	90	80	M16	14	162		
RCS87..	180	230	82	225 _{-0.5}	30	50	60m6	5	M20	64	255	368	37.5
	200	247	92	150 _{-0.5}	30	60	120	110	M20	18	130		
	250	250	92	150 _{-0.5}	22	67	120	110	M20	18	190		
RCS97..	235	295	90	280 ₋₁	35	60	70m6	7.5	M20	74.5	295	455	52
	250	320	115	180 _{-0.5}	35	80	140	125	M20	20	150		
	300	300	115	180 _{-0.5}	26	85	140	125	M20	20	240		

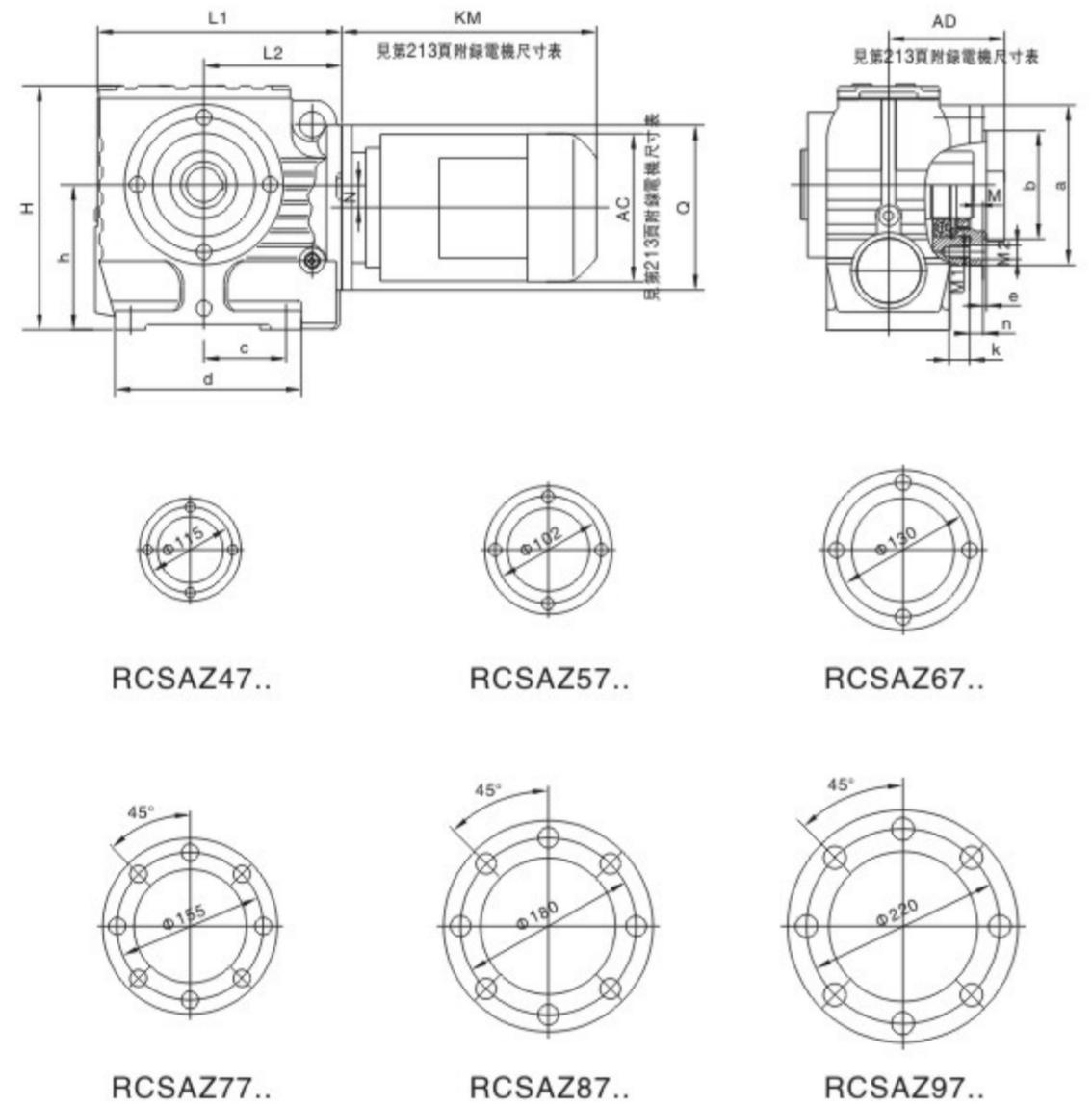
型號 Model	法蘭 型式 flange form	a b	c e	f g h	軸伸尺寸 Shaft dimension			空心軸 I 尺寸 Hollow shaft dimension				空心軸 II 尺寸 Hollow shaft dimension			H	L1 L2 L3	N Q
					d l	l1 l2	s t u	d1 d2	l3 l4 l5	l6 l7 l8	s1 t1 u1	d3 d4	l9 l10	s2 t2 u2			
RCSF47.. RCSAF47..	Fig.1	160	3.5	130	25k6	5	M10	30 ^{H7}	63	60	M10X25	25 ^{H7}	17	M10X25	57.5	179	8
		110j6	10	9	50	40	28	45	60	17	33.3	45	105	28.3	8		
RCSF57.. RCSAF57..	Fig.1	200	3.5	165	30k6	3.5	M10	35 ^{H7}	78	75	M12X30	30 ^{H7}	17	M10X25	72	189	20
		130j6	12	11	60	50	33	50	75	22	38.3	50	132	33.3	8		
RCSF67.. RCSAF67..	Fig.1	200	3.5	165	35k6	7	M12	45 ^{H7}	87	84	M16X40	40 ^{H7}	29	M16X40	80.5	236	22
		130j6	12	11	70	56	38	65	84	29	48.8	65	144	43.3	12		
RCSF77.. RCSAF77..	Fig.1	250	4	215	45k6	5	M16	60 ^{H7}	108	105	M20X50	50 ^{H7}	32	M16X45	121	301	34
		180j6	15	13.5	90	80	48.5	80	105	37	64.4	80	183	53.8	14		
RCSF87.. RCSAF87..	Fig.1	350	5	300	60m6	5	M20	70 ^{H7}	128	125	M20X50	60 ^{H7}	36	M20X50	145	368	37.5
		250h6	18	17.5	120	110	64	95	125	34	74.9	95	220	64.4	18		
RCSF97.. RCSAF97..	Fig.2	450	5	400	70m6	7.5	M20	90 ^{H7}	149	145	M24X60	70 ^{H7}	34	M20X50	165	455	52
		350h6	22	17.5	140	125	74.5	120	145	41	95.4	120	260	74.9	20		

RCSA47..~RCSA97..



型號 Model	a b c	e f g	h	k m h	p q	空心軸 I 尺寸 Hollow shaft dimension			空心軸 II 尺寸 Hollow shaft dimension			扭矩臂尺寸 Torque arm form			H L1 L2	Q N	
						d1 d2	l1 l2 l3	l4 l5 l6	s1 t1 u1	d3 d4	l7 l8	s2 t2 u2	g1 g2 g3	g4 g5 h1			d5 r s3
RCSA47.. RCS..47/T..	60 35 52	94 127 67	100	20 M10 4	12 M8	30 ^{H7} 45	63 60 2.5	60 17 105	M10X25 33.3 8	25 ^{H7} 45	17 105	M10X25 28.3 8	57.5 15 20.5	31 36 ^{-0.3} 130	10.4 \pm 0.1 21 M8X25	179 171 96	8 120
RCSA57.. RCS..57/T..	60 58.5 58.5	100 146 73	112	20 M10 4	12 M8	35 ^{H7} 50	78 75 3	75 22 132	M12X30 38.3 10	30 ^{H7} 50	17 132	M10X25 33.3 8	72 15 18.5	31 36 ^{-0.3} 160	10.4 \pm 0.1 21 M8X25	189 187 107	20 120
RCSA67.. RCS..67/T..	88 71.5 80.5	128 182 95.5	140	25 M12 5	20 M12	45 ^{H7} 65	87 84 3.5	84 29 144	M16X40 48.8 14	40 ^{H7} 65	29 144	M16X40 43.3 12	80.5 18 19.5	31 36 ^{-0.3} 200	10.4 \pm 0.1 21 M12X35	236 242 135	22 160
RCSA77.. RCS..77/T..	102 85 85	154 204 104	180	32 M16 6	20 M12	60 ^{H7} 80	108 105 4	105 37 180	M20X50 64.4 18	50 ^{H7} 80	32 183	M16X45 53.8 14	101 18 32.5	54 60 ^{-0.3} 250	16.4 \pm 0.08 30 M12X35	301 287 162	34 200
RCSA87.. RCS..87/T..	118 115 110	194 260 125	225	32 M16 6	26 M16	70 ^{H7} 95	128 125 5	125 34 220	M20X50 74.9 20	60 ^{H7} 95	36 220	M20X50 64.4 18	120 24 25.5	54 60 ^{-0.5} 310	16.4 \pm 0.08 30 M16X45	368 340 190	37.5 250
RCSA97.. RCS..97/T..	160 135 113	236 301 140	280	36 M20 6	26 M16	90 ^{H7} 120	149 145 5	145 41 255	M24X60 95.4 25	70 ^{H7} 120	34 260	M20X50 74.9 20	140 26 33	72 80 ^{-0.5} 380	25 \pm 0.08 40 M16X50	455 420 240	52 300

RCSAZ47..~RCSAZ97..



型號 Model	a	b	c	d	e	h	H	k	L1	L2	M	M1	M2	N	n	Q
RCSAZ47..	130	95j6	67	127	3	100	179	12	171	96	8.5	M8	9	8	11	120
RCSAZ57..	120	80j6	73	146	3	112	189	12	187	107	8	M8	9	20	11	120
RCSAZ67..	155	105j6	95.5	182	3.5	140	236	20	242	135	9.5	M12	13.5	22	13	160
RCSAZ77..	180	125j6	104	204	4	180	301	18.5	287	162	14.5	M12	13.5	34	18.5	200
RCSAZ87..	215	150j6	125	260	5	225	368	23.5	340	190	18.5	M16	17.5	37.5	23.5	250
RCSAZ97..	260	180j6	140	301	5	280	455	23.5	420	240	18.5	M16	17.5	52	23.5	300

ROR..

RCF..

RCK..

RCS..

RCS系列斜齒輪-蝸輪蝸杆減速電機

ROR..

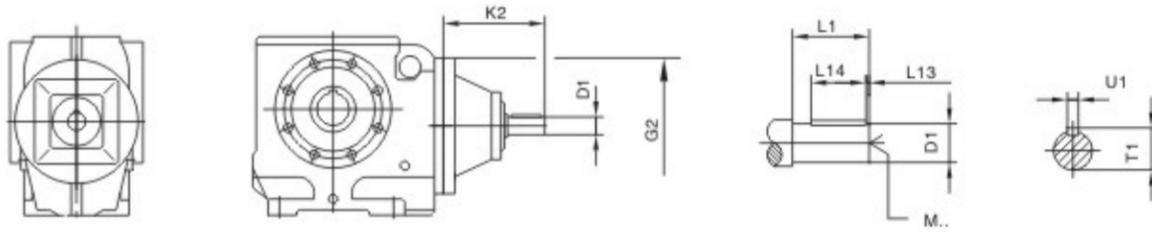
RCF..

RCK..

RCS..

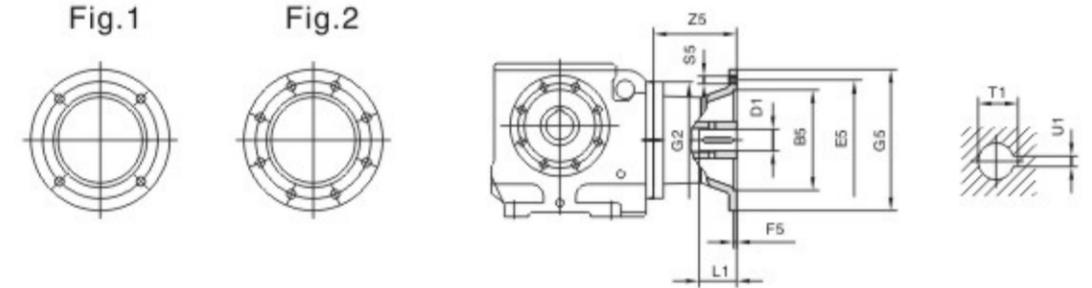
RCS系列斜齒輪-蝸輪蝸杆減速電機

RCS..AD..



減速箱規格 Gear unit type	聯接盤規格 Motor adcopator	G2	K2	D1	L1	L13	L14	T1	U1	M
RCS..37 RCS..47,S..57	AD1	120	102	16	40	4	32	18	5	M5
	AD2		130	19	40	4	32	21.5	6	M6
RCS..67	AD2	160	123	19	40	4	32	21.5	6	M6
	AD3		159	24	50	5	40	27	8	M8
RCS..77	AD2	200	116	19	40	4	32	21.5	6	M6
	AD3		151	24	50	5	40	27	8	M8
	AD4		224	38	80	5	70	41	10	M12
RCS..87	AD2	250	111	19	40	4	32	21.5	6	M6
	AD3		156	28	60	5	50	31	8	M10
	AD4		219	38	80	5	70	41	10	M12
	AD5		292	42	110	10	70	45	12	M16
RCS..97	AD3	300	151	28	60	5	50	31	8	M10
	AD4		214	38	80	5	70	41	10	M12
	AD5		287	42	110	10	70	45	12	M16
	AD6		327	48	110	10	80	51.5	14	M16

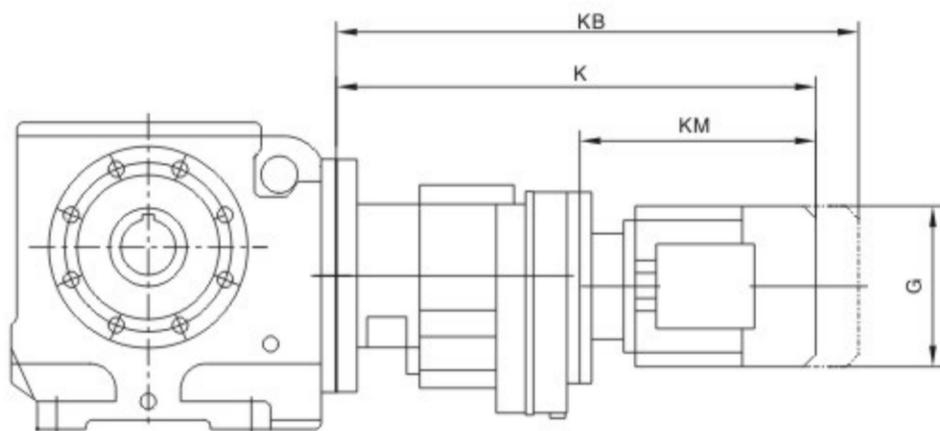
RCS..AM..



減速箱規格 Gear unit type	聯接盤規格 Motor adcopator	Fig	B5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1	
RCS..37 RCS..47,S..57	AM63	1	95	115	3.5	120	140	M8	72	11	23	12.8	4	
	AM71 ¹⁾		110	130			14			30	16.3	5		
	AM80 ¹⁾		130	165	4.5		200	M10		19	40	21.8	6	
	AM90 ¹⁾						24			50	27.3	8		
RCS..67	AM63	1	95	115	3.5	160	140	M8	66	11	23	12.8	4	
	AM71		110	130			14			30	16.3	5		
	AM80		130	165	4.5		200	M10		19	40	21.8	6	
	AM90						24			50	27.3	8		
	AM100 ¹⁾		180	215	5		250	M12		28	60	31.3	8	
AM112 ¹⁾														
RCS..77	AM63	1	95	115	3.5	200	140	M8	60	11	23	12.8	4	
	AM71		110	130			14			30	16.3	5		
	AM80		130	165	4.5		200	M10		19	40	21.8	6	
	AM90						24			50	27.3	8		
	AM100 ¹⁾		180	215	5		250	M12		28	60	31.3	8	
	AM112 ¹⁾													
	AM132S ¹⁾		230	265	5		300	M12		179	38	80	41.3	10
AM132M ¹⁾														
AM132ML ¹⁾														
RCS..87	AM80	1	130	165	4.5	250	200	M10	87	19	40	21.8	6	
	AM90		24	50			27.3			8				
	AM100		180	215	5		250	M12		121	28	60	31.3	8
	AM112													
	AM132MS		230	265	5		300	M12		174	38	80	41.3	10
	AM132M													
	AM132ML		250	300	6		350	M16		232	42	110	45.3	12
AM160 ¹⁾	48					51.8	14							
AM180 ¹⁾														
RCS..97	AM100	1	180	215	5	300	250	M12	116	28	60	31.3	8	
	AM112													
	AM132S		230	265	5		300	M12		169	38	80	41.3	10
	AM132M													
	AM132ML		250	300	6		350	M16		227	42	110	45.3	12
	AM160						48				51.8	14		
	AM180		300	350	6		400	M16		268	55		59.3	16
	AM200 ¹⁾													
AM225 ¹⁾	2	350	400	7	450		283	60	140	64.4	18			

1) 如果安裝在RCS系列腳安裝方式的減速機，請檢查尺寸G5/2，它可能已突出安裝平面。
Dimension G5/2 May protrude past foot mounting surface if mounted on RCS foot-mounted gear unit, please check.

RCS..R..



減速箱規格 Gear unit type	電機規格 Motor type	G	K	KB	KM
RCS..37R17	D63..	155	368	425	193
	D71D	155	369	433	194
	D80..	155	419	483	244
RCS..47R17 RCS..57R37	D63..	155	400	425	193
	D71D	155	401	433	194
	D80..	155	451	483	244
RCS..67R37	D63..	155	410	457	235
	D71D	155	401	465	236
	D80..	155	451	515	286
	D90..	155	451	536	286
RCS..77R37	D63..	155	392	449	235
	D71D	155	393	457	236
	D80..	155	443	507	286
RCS..87R57	D90..	210	443	528	286
	D63..	155	445	502	229
	D71D	155	445	509	229
	D80..	155	495	559	279
	D90..	210	495	580	279
RCS..97R57	D100M	210	545	630	329
	D100L	210	565	650	349
	D63..	155	440	497	229
	D71D	155	440	504	229
	D80..	155	490	554	279
	D90..	210	510	595	299
RCS..97R57	D100M	210	540	625	329
	D100L	210	560	645	349
	D112M	240	575	655	364

注：上表中點擊尺寸為參考尺寸，因空間限制對電機尺寸有嚴格要求時請向我公司諮詢。
Notes: The dimension of motor in the above table is only reference. If you have special require require. Please consult us.

9. 設計和裝配注意事項

Important notes of design and mounting

9.1 拆裝單鍵空心軸減速機

9.1 Installation/removal of gear units with hollow shafts and keys

重要提示
Installation

- 在裝配過程中一定要使用所供應的潤滑劑。它的作用是防止接觸腐蝕和便于拆卸。
Always use the supplied NOCO Fluid paste during the assembly procedure. It avoids contact corrosion and easy for disassembly.
- 鍵的尺寸X是有用戶確定，但X必須>DK。
The key dimension X is defined by the customer, however X must be >DK.

安裝
Customer shaft

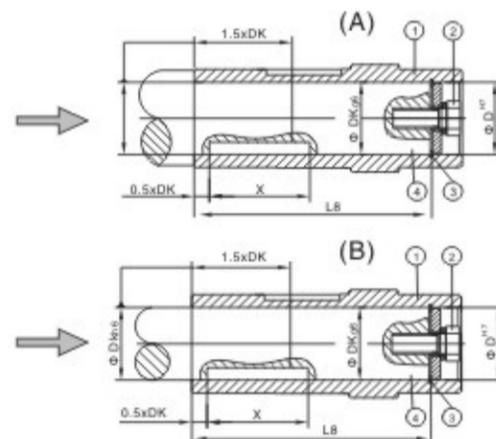
- 推薦兩種方法將用戶軸安裝到單鍵空心軸上。
Recommends two methods for mounting gear unit with hollow shafts and keys onto the input shaft of the driven machine(=customer shaft):
- 1. 用提供的固定件進行裝配
Install with supplied fastening elements
- 2. 用可選件裝卸工具進行裝配
Install using the optional installation/removal kit

9.1.1 提供的固定件

9.1.1 Supplied fastening elements

標準產品提供下列固定件：
The following fastening elements are supplied as standard:

- 帶墊片的緊固螺栓
Retaining screw with washer ①
- 孔用擋圈
Circlip ②



帶軸肩的用戶軸
用戶軸的安裝長度必須為L8-1(mm)(圖)
Installation length of customer shaft with contact shoulder(A) must be L8-1mm

用戶軸不帶軸肩
安裝長度必須等於L8(圖)
Installation length of customer shaft with contact shoulder(B) must equal to L8

緊固螺栓要擰緊到MS所示擰緊力矩值
The retaining screw ② must be tightened to the tightening torque MS listed in the following table

① 空心軸 Hollow shaft
② 帶墊片的緊固螺栓 Retaining screw with washer
③ 孔用擋圈 Circlip
④ 用戶軸 Customer shaft

圖：空心軸組裝示意圖(帶軸肩的用戶軸)
Fig: Customer shaft with contact shoulder(A) and with contact shoulder(B)

減速器型號 Gear unit type	D ^{H7} [mm]	DK[mm]	L8[mm]	MS[Nm]
RCSA..37	20	20	84,106,104	8
RCSA..47	25	25	105	20
RCFA..37,RCKA..37,RCSA..47,RCSA..57	30	30	105 132	20
RCFA..47,RCKA..47,RCSA..57	35	35	132	20
RCFA..57,RCKA..57 RCFA..67,RCKA..67 RCSA..67	40	40	142 156 144	40
RCSA..67	45	45	144	40
RCFA..77,RCKA..77,RCSA..77	50	50	183	40
RCFA..87,RCFA..87, RCSA..77,RCSA..87,	60	60	210 180,220	80
RCFA..97,RCFA..97, RCSA..87,RCSA..97,	70	70	270 220,260	80
RCFA..107,RCKA..107,RCSA..97	90	90	313,313,255	200
RCFA..127,RCKA..127,	100	100	373	200
RCFA..157,RCKA..157,	120	120	460	200

9.1.2 拆裝工具

9.1.2 Installation / removal kit

可使用的選件：拆裝工具進行裝配。可以通過表中給出的零件號訂購減速機的拆裝工具。

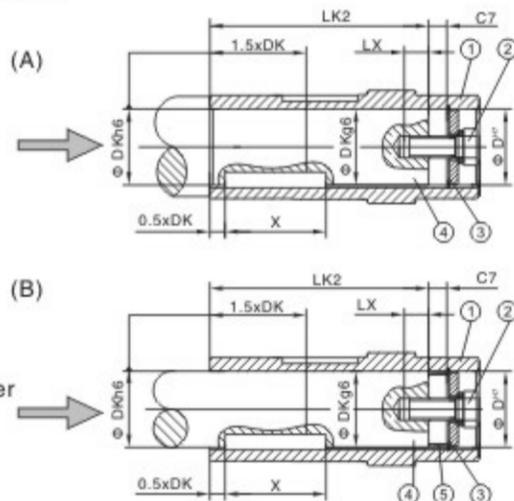
拆裝工具包含以下零件：

- 對沒有軸肩的用戶軸裝配所有的軸套
- 拆卸用的壓盤
- 裝配用的緊固螺栓
- 拆卸用的鎖母

You can use the optional installation/removal kit for installation. The kit can be ordered for the specific gear unit types by quoting the part numbers in the table below.

The accessories of the tools include:

- Distance piece for installation without contact shoulder⑤
- Retaining screw for installation②
- Removal washer for installation⑦
- Fixed nut for removal⑧



帶軸肩的用戶軸
安裝長度LK2【→圖A】不使用軸套
The installation length of the customer shaft must be LK2.
The distance piece must not be used if the customer shaft does have a contact shoulder(A).

不帶軸肩的用戶軸
安裝長度LK2【→圖B】軸套必須使用
The installation length of the customer shaft must be LK2.
The distance piece must not be used if the customer shaft does have a contact shoulder(B).

- ① 空心軸
- ② 帶墊片的緊固螺栓
- ③ 孔用擋圈
- ④ 用戶軸
- ⑤ 軸套
- ① Hollow shaft
- ② Retaining screw with washer
- ③ Circlip
- ④ Customer shaft
- ⑤ Distance piece

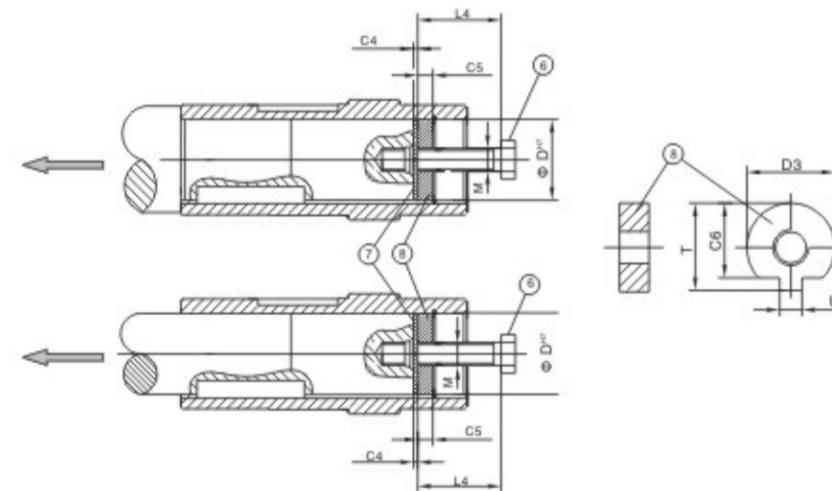
圖：帶軸肩附用戶軸 (A) 和不帶軸肩附用戶軸 (B)
Fig: Customer shaft with contact shoulder (A) and without contact shoulder (B)

減速器型號 Gear unit type	D ^{H7} [mm]	DK[mm]	LK2[mm]	LX ² [Nm]	C7[Nm]	MS[Nm]
RCSA..37	20	20	92	16	12	8
RCSA..47	25	25	89	22	16	20
RCFA..37,RCKA..37,RCSA..47 RCSA..57	30	30	89 89,116	22	16	20
RCFA..47,RCKA..47,RCSA..57	35	35	114	28	18	20
RCFA..57,RCKA..57 RCFA..67,RCKA..57 RCSA..67	40	40	124 138,138,126	36	18	40
RCSA..67	45	45	126	36	18	40
RCFA..77,RCKA..77,RCSA..77	50	50	165	36	18	40
RCFA..87,RCKA..87 RCSA..77,RCSA..87	60	60	188 158,198	42	22	80
RCFA..97,RCKA..97 RCSA..87,RCSA..97	70	70	248 198,238	42	22	80
RCFA..107,RCKA..107,RCSA..97	90	90	287 229	50	26	200
RCFA..127,RCKA..127	100	100	347	50	26	200
RCFA..157,RCKA..157	120	120	434	50	26	200

拆卸 Removal

用拆裝工具進行裝配，須按以下步驟進行拆卸

1. 拆下緊固螺栓⑥
 2. 拆下擋圈③，若使用了軸套⑤也一并拆下
 3. 在用戶軸④和擋圈③之間按圖13裝上壓盤⑦和鎖母⑧
 4. 重新裝上擋圈③
 5. 重新裝上緊固螺栓⑥
- 這樣就可以把軸拆下來。



- ⑥ 螺栓 Retaining screw
- ⑦ 壓盤 Removal washer
- ⑧ 拆卸用鎖母 Fixed nut for removal

圖：空心軸拆卸示意圖
Fig:Removal

Applies prior installation with the installation /removal kit only.

Proceed as follows for removal:

- 1.Remove the retaining screw⑥
- 2.Remove the Circlip③ and if used, the distance piece⑤
- 3.Insert the removal washer⑦ and the fixed nut⑧ between the customer shaft④ and circlip③ according to Fig.
- 4.Re-insert the circlip③.
- 5.Re-insert the retaining screw⑥.You can now push the gear unit off the shaft.

型號 Model	D ^{H7} [mm]	M	C4 [mm]	C5 [mm]	C6 [mm]	U ^{-0.5} [mm]	T3 ^{-0.5} [mm]	D ^{-0.5L4} [mm]	拆裝工具零件號 Installation/ removal kit part number
RCSA..37	20	M6	5	6	15.5	5.5	22.5	19.7	25
RCSA..47	25	M10	5	10	20	7.5	28	24.7	35
RCFA..37,RCKA..37,RCSA..57	30	M10	5	10	25	7.5	33	29.7	35
RCFA..47,RCSA..57	35	M12	5	12	29	9.5	38	34.7	45
RCFA..57,RCKA..57,RCFA..67,RCKA..67,RCSA..57	40	M16	5	12	34	11.5	41.9	39.7	50
RCSA..67	45	M16	5	12	38.5	13.5	48.5	44.7	50
RCFA..77,RCKA..77,RCSA..77	50	M16	5	12	43.5	13.5	53.5	49.7	50
RCFA..87,RCKA..87,RCSA..77,RCSA..87	60	M20	5	16	56	17.5	64	59.7	60
RCFA..97,RCKA..97,RCSA..97	70	M20	5	16	65.5	19.5	74.5	69.7	60
RCFA..107,RCKA..107,RCSA..97	90	M24	5	20	80	24.5	95	89.7	70
RCFA..127,RCKA..127	100	M24	5	20	89	27.5	106	99.7	70
RCFA..157,RCKA..157	120	M24	5	20	107	31	127	119.7	70

9.2 帶軸階的空心軸和鎖緊盤選件

9.2 Shouldered hollow shaft with shrink disk (option)

帶空心軸鎖緊盤的減速機(RCFH/FHF/FHZ37-157)平行軸減速機RCKH/KHF/KHZ37-157斜齒輪-錐齒輪減速機和RCSH/SHF47-97斜齒輪蝸輪蝸杆減速機, 可提供較大的軸孔直徑D' 作為選件

D=D' 為標準產品

Gear unit with a hollow shaft and shrink disk (parallel shaft helical gear units H/FHF/SH/SHF47-97) can be supplied with an optional larger hole diameter D'

The standard is D'=D.

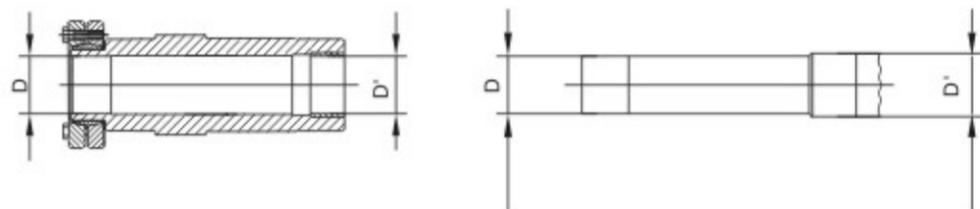


圖: 選件軸孔直徑D'

Fig: Optional hole diameter D'

減速器型號 Gear unit size	孔徑 D/D' Hole diameter
RCFH/FHF/FHZ37,RCKH/KHF/KHZ37,RCSH/SHF/SHZ47	30/32
RCFH/FHF/FHZ47,RCKH/KHF/KHZ47,RCSH/SHF/SHZ57	35/36
RCFH/FHF/FHZ57,RCKH/KHF/KHZ57	40/42
RCFH/FHF/FHZ67,RCKH/KHF/KHZ67,RCSH/SHF/SHZ67	40/42
RCFH/FHF/FHZ77,RCKH/KHF/KHZ77,RCSH/SHF/SHZ77	50/52
RCFH/FHF/FHZ87,RCKH/KHF/KHZ87,RCSH/SHF/SHZ87	65/66
RCFH/FHF/FHZ97,RCKH/KHF/KHZ97,RCSH/SHF/SHZ97	75/76
RCFH/FHF/FHZ107,RCKH/KHF/KHZ107	95/96
RCFH/FHF/FHZ127,RCKH/KHF/KHZ127	105/106
RCFH/FHF/FHZ157,RCKH/KHF/KHZ157	125/126

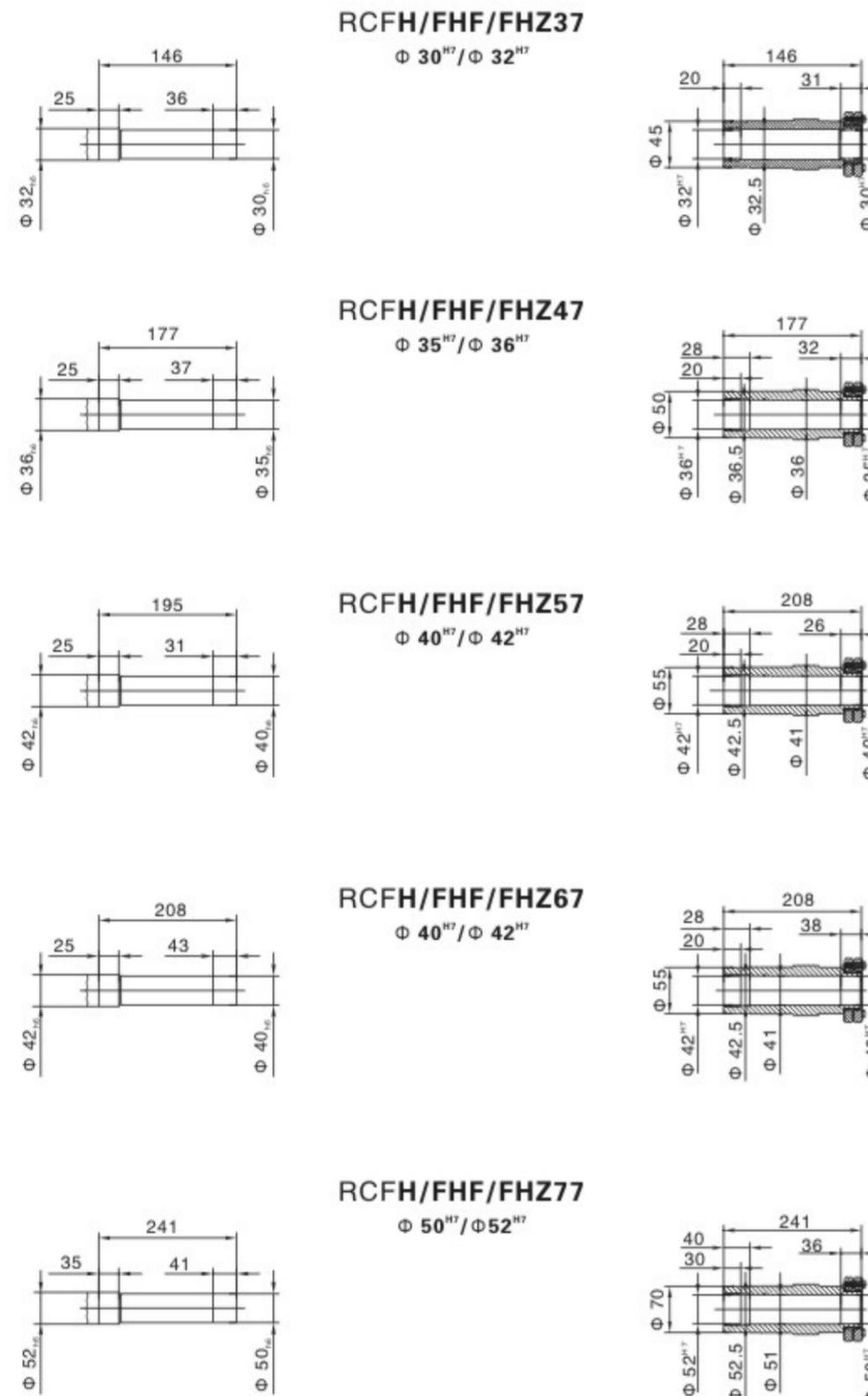
定購帶軸階的空心軸減速機(可選軸孔直徑D')必須注明D/D'尺寸。

例如: RCFH37 D80N4 30/32

Diameter D/D' must be specified when ordering gear units with a shouldered hollow shaft (optional hole diameter D').

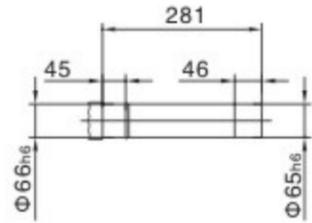
帶軸階空心軸和鎖緊盤的平行軸減速電機

Parallel shaft helical gear unit with shouldered hollow shaft

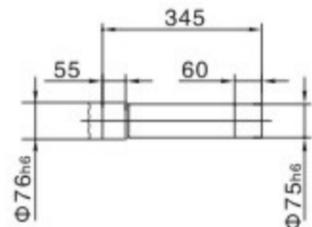
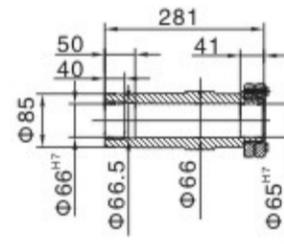


帶軸階空心軸和鎖緊盤的平行軸減速電機
Parallel shaft helical gear unit with shouldered hollow shaft

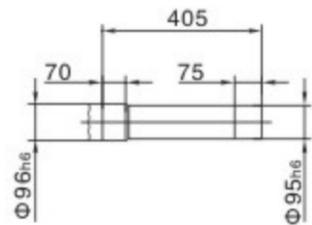
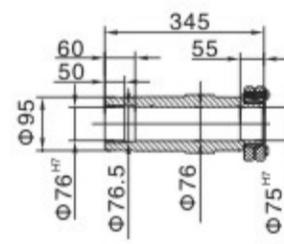
帶軸階空心軸和鎖緊盤的斜齒輪-錐齒輪減速電機
Helical-bevel gear unit with shouldered hollow shaft



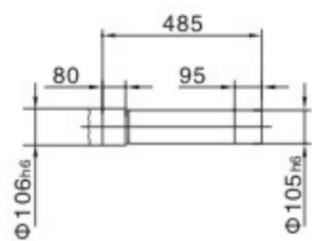
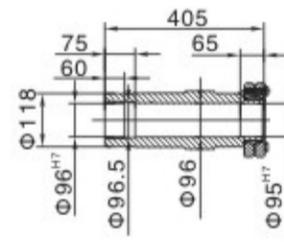
RCFH/FHF/FHZ87
Φ65^{H7}/Φ66^{H7}



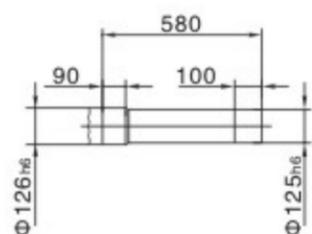
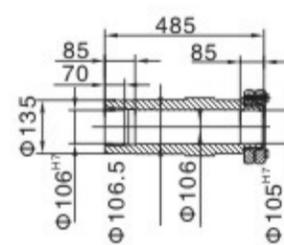
RCFH/FHF/FHZ97
Φ75^{H7}/Φ76^{H7}



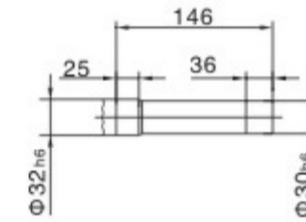
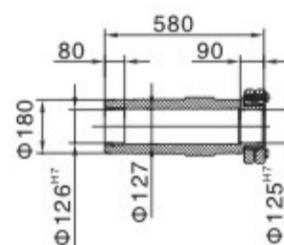
RCFH/FHF/FHZ107
Φ95^{H7}/Φ96^{H7}



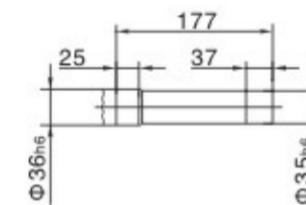
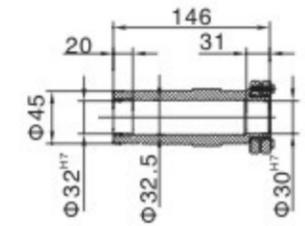
RCFH/FHF/FHZ127
Φ105^{H7}/Φ106^{H7}



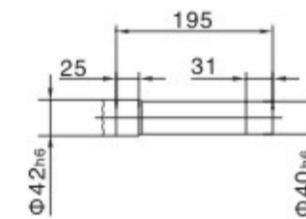
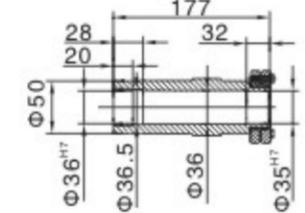
RCFH/FHF/FHZ157
Φ125^{H7}/Φ126^{H7}



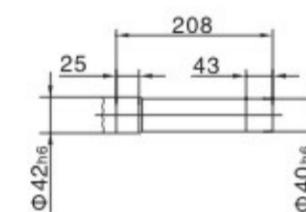
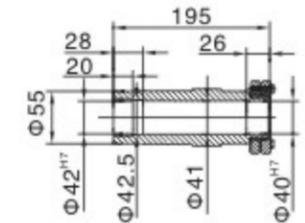
RCKH/KHF/KHZ37
Φ30^{H7}/Φ32^{H7}



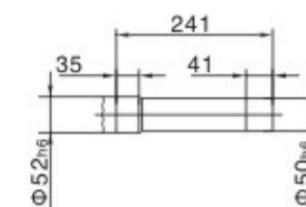
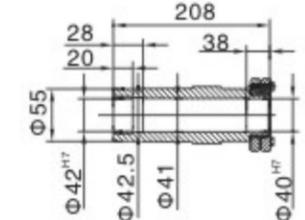
RCKH/KHF/KHZ47
Φ35^{H7}/Φ36^{H7}



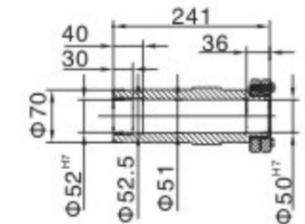
RCKH/KHF/KHZ57
Φ40^{H7}/Φ42^{H7}



RCKH/KHF/KHZ67
Φ40^{H7}/Φ42^{H7}



RCKH/KHF/KHZ77
Φ50^{H7}/Φ52^{H7}



RCR..

RCF..

RCK..

RCS..

RC..系列齒輪減速電機

RCP..

RCF..

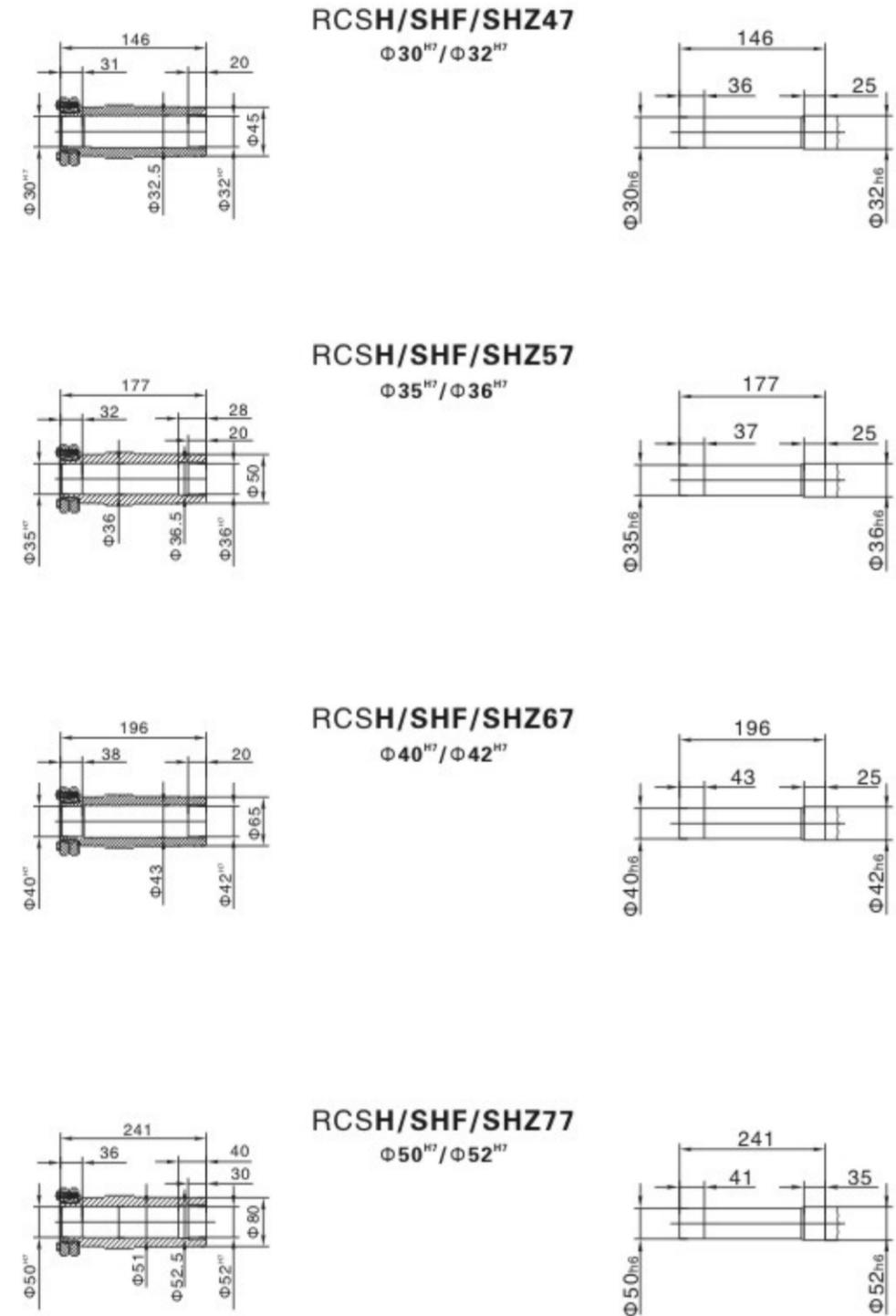
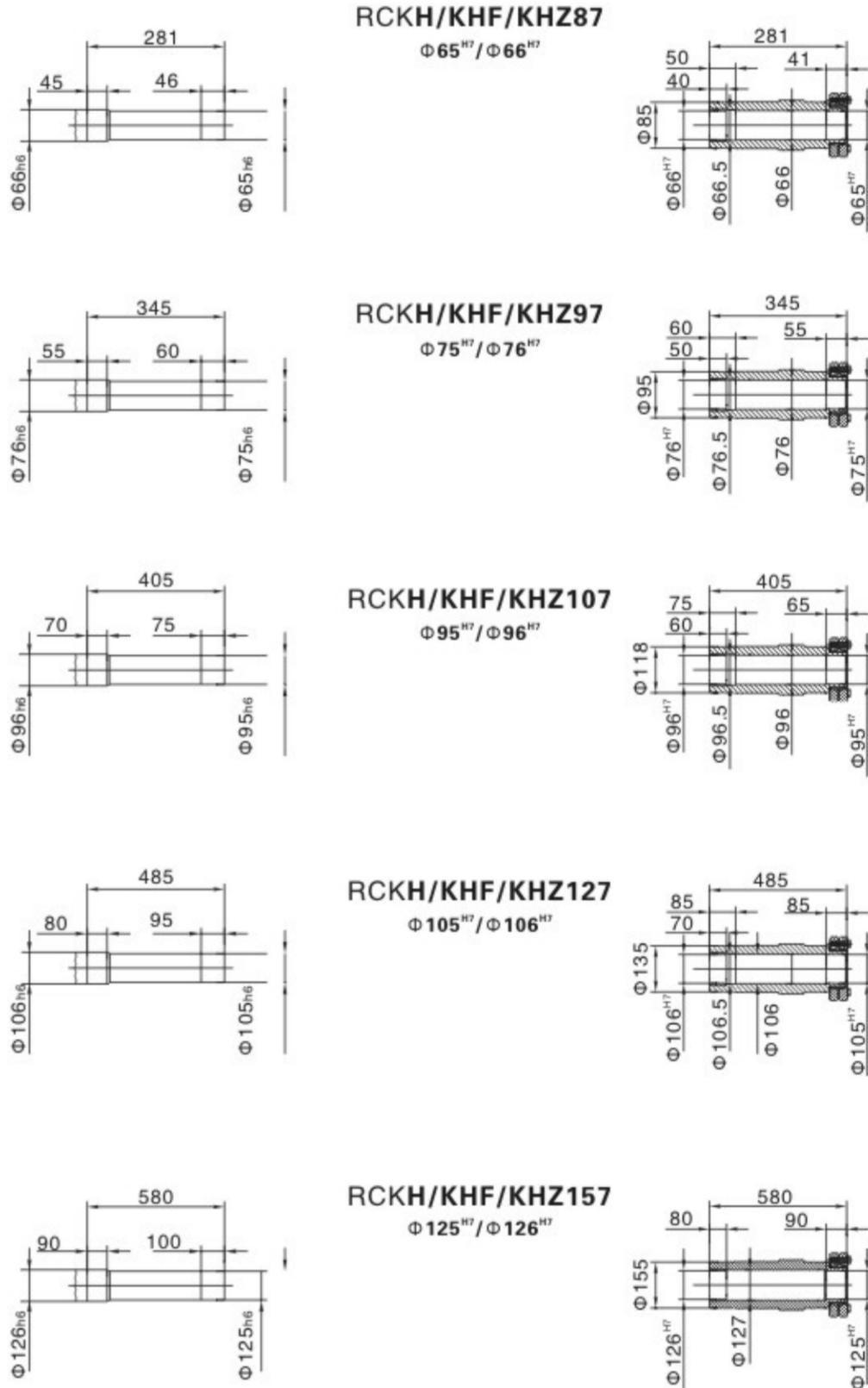
RCK..

RCS..

RC..系列齒輪減速電機

帶軸階空心軸和鎖緊盤的斜齒輪-錐齒輪減速電機
Helical-bevel gear unit with shouldered hollow shaft

帶軸階空心軸和鎖緊盤的斜齒輪-蝸杆減速電機
Helical-worm gear unit with shouldered hollow shaft



RCR..

RCF..

RCK..

RCS..

RC..系列齒輪減速電機

RCP..

RCF..

RCK..

RCS..

RC..系列齒輪減速電機

帶軸階空心軸和鎖緊盤的斜齒輪-蝸杆減速電機
Helical-worm gear unit with shouldered hollow shaft

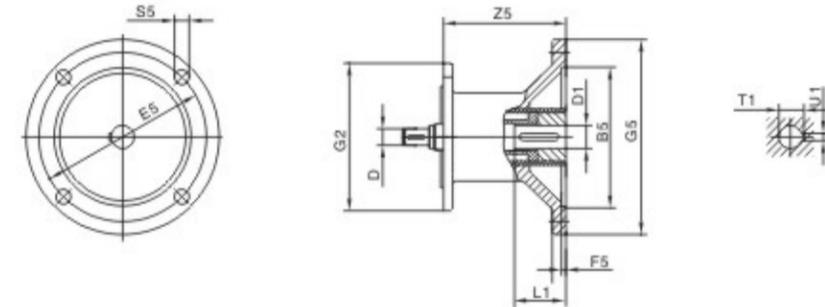


RCSR/SHF/SHZ87
Φ65^{H7}/Φ66^{H7}

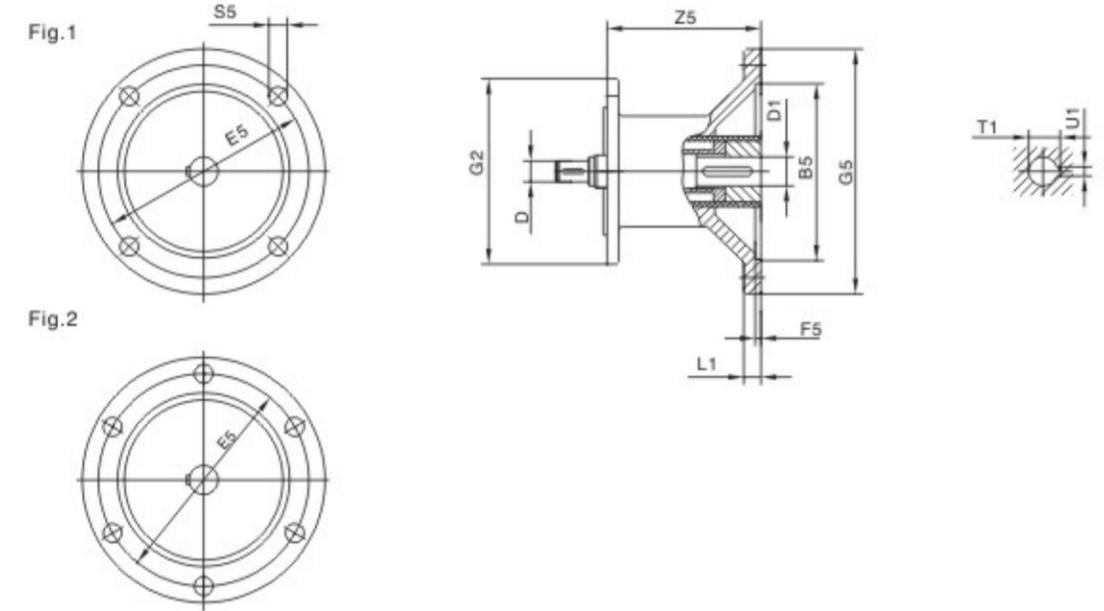
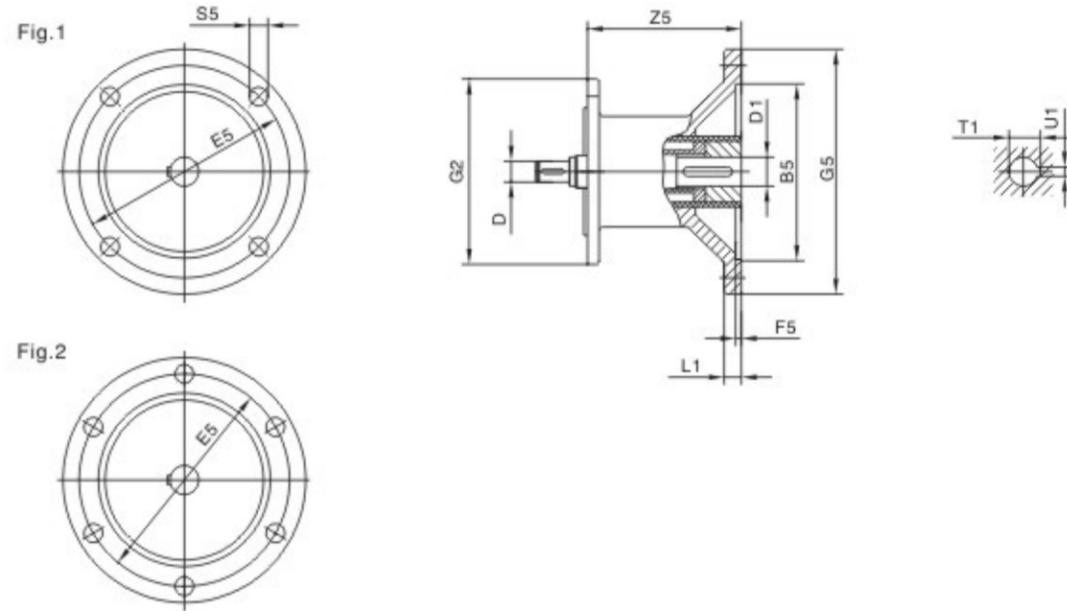


RCSR/SHF/SHZ97
Φ75^{H7}/Φ76^{H7}

9.3 用于安装IEC標準電機的聯軸器
9.3 Coupling for mounting of IEC motors



減速箱規格 Gear unit type	聯軸器規格 Coupling type	B5	D	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
RCR..27,RCR..37 RCF..37,RCF..47 RCK..37 RCS..37,RCS..47 RCS..57	AM63	95	10	115	3.5	120	140	M8	72	11	23	12.8	4
	AM71 ¹⁾	110		130			14			30	16.3	5	
	AM80 ¹⁾	130	12	4.5	200		M10	106	19	40	21.8	6	
	AM90 ¹⁾		14						165	24	50	27.3	8
RCR..47,RCR..57 RCR..67 RCF..57,RCF..67 RCK..47,RCK..57 RCK..67 RCS..67	AM63	95	10	115	3.5	160	140	M8	66	11	23	12.8	4
	AM71	110		130			14			30	16.3	5	
	AM80	130	12	4.5	200		M10	99	19	40	21.8	6	
	AM90		14						165	24	50	27.3	8
	AM100 ¹⁾	180	16	5	250		M12	134	28	60	31.3	8	
	AM112 ¹⁾	18	215						28	60	31.3	8	
RCR..77 RCF..77 RCK..77 RCS..77	AM63	95	10	115	3.5	200	140	M8	60	11	23	12.8	4
	AM71	110		130			14			30	16.3	5	
	AM80	130	12	4.5	200		M10	92	19	40	21.8	6	
	AM90		14						165	24	50	27.3	8
	AM100 ¹⁾	180	16	5	250		M12	126	28	60	31.3	8	
	AM112 ¹⁾	18	215						28	60	31.3	8	
	AM132S ¹⁾	230	22	265	300		M12	179	38	80	41.3	10	
	AM132M ¹⁾		28						38	80	41.3	10	
AM132ML ¹⁾		28											
RCR..87 RCF..87 RCK..87 RCS..87	AM80	130	12	165	4.5	250	200	M10	87	19	40	21.8	6
	AM90		14							24	50	27.3	8
	AM100	180	16	215	5		250	M12	121	28	60	31.3	8
	AM112		18							28	60	31.3	8
	AM132S	230	22	265	300		M12	174	38	80	41.3	10	
	AM132M		28						38	80	41.3	10	
	AM132ML		28										
	AM160 ¹⁾	250	28	300	6		350	M16	232	42	110	45.3	12
AM180 ¹⁾	32		48			51.8				14			

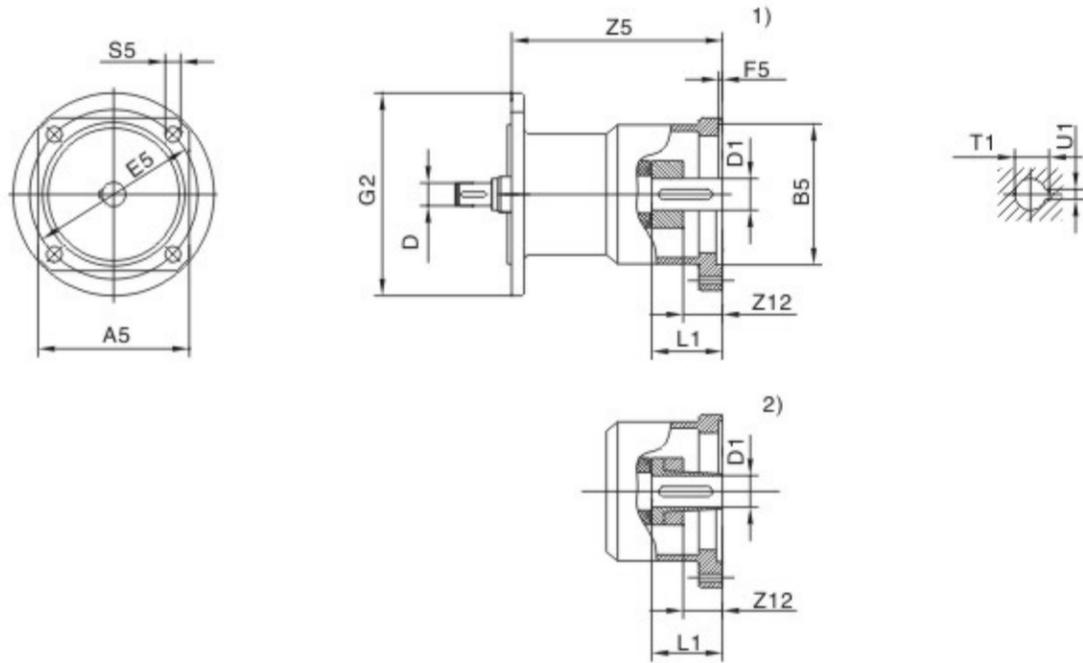


減速箱規格 Gear unit type	聯軸器規格 Coupling type	Fig	B5	D	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1		
RCR..97 RCF..97 RCK..97 RCS..97	AM100	1	180	16	215	5	300	250	M12	116	28	60	31.3	8		
	AM112			18												
	AM132S		230	22	265			300		M16	169	38	80	41.3	10	
	AM132M			28												
	AM160		250	28	300			6		350	M16	227	42	110	45.3	12
	AM180			32												
	AM200		300	38	350			7		400	M16	268	55	110	59.3	16
	AM225 ¹⁾			450												
	RCR..107 RCF..107 RCK..107		AM100	1	180			16		215	5	350	250	M12	110	28
AM112		18														
AM132S		230	22		265	300	M16	163	38	80			41.3		10	
AM132M			28													
AM132ML		250	28		300	6	350	M16	221	42			110		45.3	12
AM160			32													
AM180		300	38		350	7	400	M16	262	55			110		59.3	16
AM200			450													
RCR..137		AM132S	1		230	22	265	5	400	300			M12		156	38
	AM132M	28														
	AM132ML	250		28	300	6	350			M16	214	42		110	45.3	12
	AM160			32												
	AM180	300		38	350	7	400			M16	255	55		110	59.3	16
	AM200			450												
	AM225	2		350	38	400	7			450	270	60		140	64.4	18

1) 如果安裝在RCR、RCK和RCS系列地腳安裝方式的減速機上，請檢查尺寸G5/2，它可能已突出安裝平面。
Dimension 1/2 G5 may protrude past foot mounting surface if mounted on RCR, RCK or RCS foot-mounted gear unit. Please check.

減速箱規格 Gear unit type	聯軸器規格 Coupling type	Fig	B5	D	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1		
RCR..147 RCF..127 RCK..127	AM132S	1	230	22	265	5	450	300	M12	148	38	80	41.3	10		
	AM132M			28												
	AM132ML		250	28	300	6		350		M16	206	42	110	45.3	12	
	AM160			32												
	AM180		300	38	350	7		400		M16	247	55	110	59.3	16	
	AM200			450												262
	AM225		350	38	400	7		450		M16	336	65	140	69.4	18	
	AM250			550												336
	AM280		2	450	48	500		7		550	336	75	140	79.9	20	
RCR..167 RCF..157 RCK..157 RCK..167 RCK..187	AM160	1	250	28	300	6	550	350	M16	198	42	110	45.3	12		
	AM180			32												
	AM200		300	38	350			7		400	M16	239	55	110	59.3	16
	AM225			450												
	AM250		350	38	400			7		450	M16	328	65	140	69.4	18
	AM280			550												

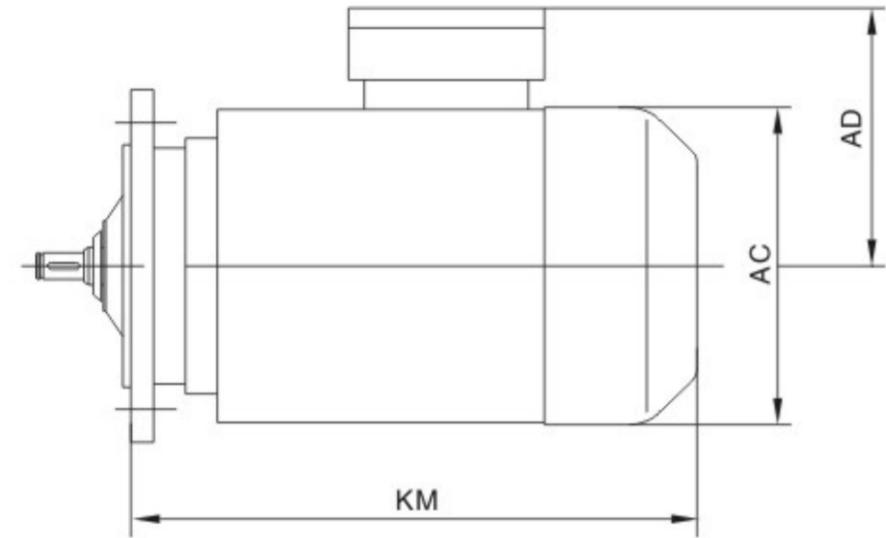
1) 如果安裝在RCR、RCK和RCS系列地腳安裝方式的減速機上，請檢查尺寸G5/2，它可能已突出安裝平面。
Dimension 1/2 G5 may protrude past foot mounting surface if mounted on RCR, RCK or RCS foot-mounted gear unit. Please check.



減速箱規格 Gear unit type	聯軸器規格 Coupling type	A5	B5	D	E5	F5	G2	S5	Z5	Z12 ¹⁾	Z12 ²⁾	D1	L1	T1 ¹⁾	U1 ¹⁾			
RCR..97 RCF..97 RCK..97 RCS..97	AQ..140/1	140	110	16	165	5	300	M10	157	21	16	24	50	27.3	8			
	AQ..140/2		18															
	AQ..140/3		130	22														
	AQ..190/1	190	130	22	215				5	350	M12	215.5	26	24	32	60	35.3	10
	AQ..190/2		180	28														
	AQ..190/3		22	28														
AQ..140/1	140	110	16	165	5	350	M10	151				21	16	24	50	27.3	8	
AQ..140/2		18																
AQ..140/3		130	22															
AQ..190/1	190	130	22	215				5	400	M12	209.5	26	24	32	60	35.3	10	
AQ..190/2		180	28															
AQ..190/3		22	28															
AQ..190/1	190	130	22	215	5	450	M12				194.5	26	24	32	60	35.3	10	
AQ..190/2		180	28															
AQ..190/3		218.5	39															34

1) 適用於鍵連接 (AQA..) 1) Applies to type with key way (AQA..)
 2) 適用於鎖緊套連接 (AQH..) 2) Applies to type with clamping ring hub (AQH..)

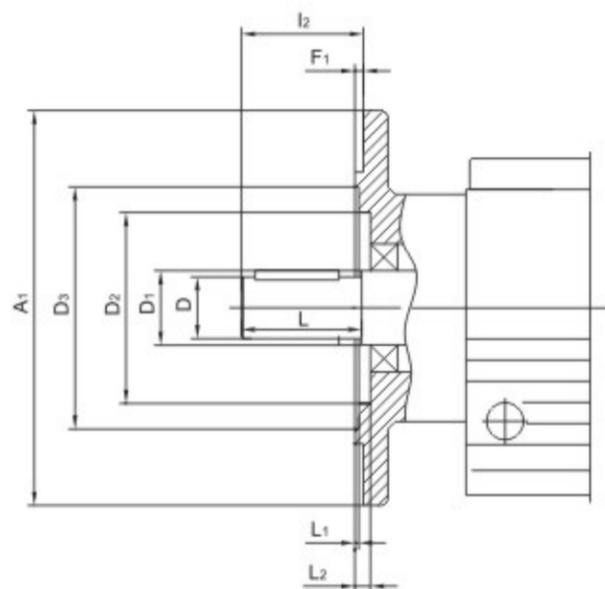
9.5 電機尺寸圖
9.5 The size of motor



型號 Model	D63M	D71M	D80M	D90S D90L	D100L	D112M	D132S D132L	D160M D160L	D180M D180L	D200L	D225S D225M	D250M	D280S D280M	D315S D315M
AC	130	145	175	195	215	240	275	330	380	420	470	510	580	612
AD	70	80	145	155	180	190	210	255	280	305	335	370	400	430
KM	250	280	320	342 367	400	408	473 513	560 615	645 685	710	724 754	810	895 945	1010 1065

注：上表中的電機尺寸為部分鐵芯長度電機的參考尺寸，具體尺寸根據鐵芯長度與聯接法蘭尺寸確定，
 因空間限制對電機尺寸有要求時請向我公司諮詢。
 Notice: The data in the above table is only for reference. If you have any special requirements, please contact us.

9.6 RCRF..和RCR..F減速電機法蘭外形圖
9.6 Flange contours of RCRF.. and RCR..F gear units



選擇和安裝輸出零件時請注意L1和L2尺寸
Check dimensions L1 and L2 for selection and installation of output elements

規格 Type	A1	D	D1	D2		D3	F1	12	L	L1		L2
				RCRF	RCR..F					RCRF	RCR..F	
RCRF17,RCR17F	120	20	25	46	46	65	3	40	40	1	1	5
	140				-	78	3			1	-	5
RCRF27,RCR27F	120	25	30	54	4	66	3	50	50	1	1	6
	140				-	79	3			3	-	7
	160				-	92	3.5			3	-	7
RCRF37,RCR37F	120	25	35	60	63	70	3	50	50	5	4	7
	160				-	96	3.5			1	-	7.5
	200				-	119	3.5			1	-	7.5
RCRF47,RCR47F	140	30	35	72	64	82	3	60	60	4	1	6
	160				-	96	3.5			0.5	-	6.5
	200				-	116	3.5			0.5	-	6.5
RCRF57,RCR57F	160	35	40	76	75	96	3.5	70	70	4	2.5	5
	200				-	116	3.5			0	-	5
	250				-	160	4			0.5	-	5.5
RCRF67,RCR67F	200	35	50	90	90	118	3.5	70	70	2	4	7
	250				-	160	4			1	-	7.5
RCRF77,RCR77F	250	40	52	112	100	160	4	80	80	0.5	2.5	7
	300				-	210	4			0.5	-	7
RCRF87,RCR87F	300	50	62	123	122	210	4	100	100	0	1.5	8
	350				-	226	5			1	-	9
RCRF97	350	60	72	136	236	320	5	120	120	0	-	9
	450				-	-	-			-	-	-
RCRF107	350	70	82	157	232	316	5	140	140	0	-	11
	450				-	-	-			-	-	-
RCRF137	450	90	108	180	316	416	5	170	170	0	-	10
	550				-	-	-			-	-	-
RCRF147	450	110	125	210	316	416	5	210	210	0	-	10
	550				-	-	-			-	-	-
RCRF167	550	120	145	290	416	517	5	210	210	1	-	10
	660				-	-	-			-	-	2

9.7 減速機安裝
9.7 Gear unit mounting

安裝減速機和減速電機時一定要使用8.8級螺栓
Always use bolts quality 8.8 for mounting gear units and geared motors.

例外
Exception

當傳遞樣本上所給定的額定扭矩時，下面幾種法蘭安裝 (RCRF..) 和地腳/法蘭安裝 (RCR..F..) 的斜齒輪減速電機，法蘭和用戶安裝單元固定時一定要用10.9級的螺栓。
· RCRF37和帶Φ 120mm法蘭的RCRF37
· RCRF47和帶Φ 140mm法蘭的RCRF47
· RCRF57和帶Φ 160mm法蘭的RCRF57

Bolts of quality 10.9 must be used for used for fastening the flange to the customer supplied unit in order to transmit the rated torque specified in the catalog. These bolts must be used in case following flange – mounted helical geared motors (RCRF..) and foot/flange – mounted helical geared motors (RCR..F..) :
· RCRF37, RCRF37F with flange Φ 120mm
· RCRF47, RCRF47F with flange Φ 140mm
· RCRF57, RCRF57F with flange Φ 160mm

RCKH167..,RCKH187..
的力矩臂

對於減速電機RCKH167..和RCKH187..作為標準配置，一般不提供扭矩臂。如果需要，請和我公司聯繫，我們將給出推薦的安裝位置和尺寸圖。

Torque arms for
RCKH167..,RCKH187..

As standard, there are no torque arms available for gear unit sizes RCKH167..and RCKH187 Please contact company if you require torque arms for these gear units. We will submit The configuration of recommendations.

9.8 潤滑 9.8 Lubricants

概述 General information

除非特別要求，公司所提供的減速電機均按其減速機規格注了油。訂貨時，所規定的安裝位置對注油量的多少是一個決定性因素。對於安裝位置的調整必須相應地調節注油量。(按218頁注油量表)。
Unless there is a special requirement, company always supplies the drives that with lubricant fill specifically for the reducer and mounting position. When ordering a drive, the decisive factor of lubricant fill quantities is the drives mounting position. You must adapt the lubricant fill to any subsequent change made to the mounting position check P218 for the (Lubricant fill quantities)

潤滑油的等級和粘度類型 Lubricating conglutination

推薦使用的潤滑油見P217頁潤滑油表，其等級和粘度指標見下表
Commend the lubricant oil in P217. The grade and conglutination index in the following.

DIN(ISO,SAE)標準潤滑油 Normal lubricating	粘度指標 Conglutination index	環境溫度℃ Ambient temperature	減速機型號 Gear unit type
Mineral oil CLp(cc)	ISOVG 220	-10~+40	RCR系列, RCF系列 RCK系列減速機
	ISOVG 680	0~+40	RCS系減速機

特殊應用場合必須使用特殊潤滑油，比如要求長使用壽命潤滑油。若需要可提供用於食品行業和生物降解潤滑油。
The special lubricant oil must be used in special situation. For example requesting use the oil with long life-span. If you want, we can afford the biology decompose oil for food industry.

DIN(ISO,SAE)標準潤滑油 Normal lubricating	粘度指標 Conglutination index	環境溫度℃ Ambient temperature	減速機型號 Gear unit type
Mineral oil CLp(CC)	ISOVG 100	-20~+25	RCR系列, RCF系列 RCK系列減速機
Synthetic fluid, clp pg	ISOVG 220	-25~+80	RCR系列, RCF系列 RCK系列減速機
Synthetic fluid, CLP HC	ISOVG 460	-30~+80	RCS系減速機

耐磨軸承用潤滑油 Anti-friction bearing greases

下列潤滑脂用於減速機和電機的耐磨軸承潤滑

DIN(ISO,SAE)標準潤滑油 Normal lubricating	環境溫度℃ Ambient temperature	減速機型號 Gear unit type
礦物軸承潤滑脂K32N/K2K mineral bearing lubricating lipin K32N/K2K	-30~+60	正常型式：減速機、電機 Normal type: motor reducer
合成軸承潤滑脂KHC 2R-40 synthetic bearing lubricating lipin K2R-40	-40~+80	減速機加注合成潤滑油 Reducers need to inject the synthetic lubricant
礦物軸承潤滑脂K3N-30 mineral bearing lubricating lipin K3N-30	-25~+80	特殊型式：按應用場合確定的電機 Special type: select the motor in different situation
合成軸承潤滑脂K2S-50 synthetic bearing lubricating lipin K2S-50	-45~-25	特殊型式：按應用場合確定的電機 Special type: select the motor in different situation

傳動裝置潤滑油表
Lubricant table

減速機型號 Gear unit type	環境溫度 Ambient temperature		潤滑油類型 DIN(ISO)	ISO粘度和NLGI相應	Mobil	Shell	Klubers	ARAL	BP	Tribol	TAMACO	Optimal	FUCHS	
	標準	標準												
RCR	-10	+40	CLP (CC)	VG 220	Mobilgear 630	Shell Omala 220	Klubers GEM 1-225	ARAL Bg220	BP Energol GR-Xp220	Tribol 1100/220	Meropa 220	Optigear BM220	Renolin CLP 220	
	-25	+40	CLP PG	VG 220	Mobil Glycoyle 30	Shell Tellus WB	Klubers Klu bersynth GH 6-220	ARAL Gs220	BP Energol SR-Xp220	Tribol 800/220	Synlube 800/220	Optiflex A 220	Renolin CLP 220	
	-40	+40	CLP HC	VG 220	Mobil SHC 630	Shell Omala 220HD	Klubers Klu bersynth GEM 4-220	ARAL PAS220		Tribol 1510/200	Pinnacle EP 220	Optigear Synthetic A 220	Renolin Unisyn CLP 220	
	-40	+40		VG 150	Mobil SHC 629	Shell Tellus T32	Klubers Klu bersynth GEM 4-150							
	-20	+25	CLP (CC)	VG 150	Mobilgear 629	Shell Omala 100	Klubers Klu bersynth GEM 1-150	ARAL Bgt100	BP Energol GR-Xp100	Tribol 1000/100	Meropa 150	Optigear BM220	Renolin CLP 150	
	-30	+10	CLP (CC)	VG 68-46	Mobil D.T.E 15M	Shell Tellus T15	Klubers Klu beroil GEM 1-68	ARAL Bg46		Tribol 1100/68	Anubia EP 46	Optigear 32	Renolin B46 HVI	
	-40	+10	CLP HC	VG 32	Mobil SHC 624	Shell Tellus T15	Klubers Klu bersynth GEM 4-32							
	-40	-20	HLP (HM)	VG 22	Mobil D.T.E 11M	Shell Tellus T15	ISO FLEX MT 30 ROT		BP Energol HLP-HM10					
	-40	-20	CLP (CC)	VG 680	Mobilgear 636	Shell Omala 680	Klubers Klu beroil GEM 1-680	ARAL Bg680	BP Energol GR-Xp680	Tribol 1100/680	Meropa 680	Optigear BM 680	Renolin CLP 680	
	-20	+60	CLP PG	VG 680 1)	Mobil Glycoyle HE 680	Shell Omala 460HD	Klubers Klu bersynth Gh 6-680		BP Energol SG-Xp680	Tribol 800/680	Synlube CLP 680			
	-30	+80	CLP PHC	VG 460	Mobil SHC 634	Shell Omala 460HD	Klubers Klu bersynth GEM 4-460							
	-40	+10	CLP (CC)	VG 150	Mobil SHC 629	Shell Omala 100	Klubers Klu bersynth GEM 4-150							
RCS	-20	+10	CLP (CC)	VG 100	Mobil D.T.E 18M	Shell Omala 100	Klubers Klu beroil GEM 1-150	ARAL Bgt100	BP Energol GR-Xp100	Tribol 1100/100	Meropa 100	Optigear BM 100	Renolin CLP 150	
	-25	+20	CLP PG	VG 220 1)	Mobil Glycoyle 30	Shell Omala 100	Klubers Klu bersynth GH 6-220			Tribol 800/220	Synlube CLP 220	Optiflex A 220		
	-40	0	CLP HG	VG 32	Mobil SHC 624	Shell Cassida Fluid GL 460	Klubers Klu bersynth GEM 4-32							
	-30	+40	HCE	VG 460 4)		Shell Cassida Fluid GL 460	Klubers Klu beroil 4UH1-460	ARAL Bear 460						
	-20	+40	E	VG 460 5)		Shell Tellus Compound A	Klubers Klu berbio CA2-460							
	-25	+60	DIN 51181	00 2)	Glycoyle Grease 00	Shell Tellus Compound A	Klubers Klu bersynth GE 46-1200							
	-15	+40		000-0 2)	Mobilux EP 004	Shell Alvania GL 00		ARAL MFL 00	BP Energol LS-EP 00					Renolin SF 7-041

■ = 合成潤滑油 Synthetic lubricant
 □ = 礦物潤滑油 Mineral lubricant
 1) Please contact with company when the Helical-worm geared motors use PG oil.
 2) Small conglutination index oil, other types of reducers. Please contact with company.
 4) biology decompose oil.
 — High request when start-up in low temperature.

1) 用PG油的斜齒輪輸送機請和公司聯繫
 2) 低粘度油類，其它型號減速機請和公司聯繫
 3) 食品飲料行業用油(食品級油)
 4) 生物降解油(用於農業，林業和水工業)
 * 低溫時起動要求高

CLPPG=聚二脲類
 CLP HC=磺化化合物類
 E=二元酸酯合成油
 HCE=磺化化合物十二脂油
 CLP=礦物油
 HLP=液壓油
 CLP:Petrolatam oil
 HLP:Hydraulic pressure oil
 KBTS/GaVI

加油量
Lubricant
fill quantities

規定的注油量是參考值。精確的注油量隨着減速機的級數和速比的不同而變化。注油時，最有效是檢查油位塞，因為它指示精確注油量。
 The specified fill quantities are recommended values. The precise vary depending on the number of stages and gear ratio. When filling, it is essential to check the oil level plug since it indicates the precise oil capacity.

斜齒輪減速器(RCR系列)
Helical gear units(RCR..)

下表按安裝位置M1-M16,給出了注油量的參考值。
 The following tables show referenced values for lubricant fill quantities in relation to relation to the Mounting position M1-M16

減速器型號 Gear unit type	注油量(升) Fill quantity(L)					
	M1 ¹⁾	M2 ¹⁾	M3	M4	M5	M6
RCR17/R17F	0.25	0.6	0.35	0.6	0.35	0.35
RCR27/R27F	0.25/0.4	0.7	0.4	0.7	0.4	0.4
RCR37/R37F	0.3/1	0.9	1	1.1	0.8	1
RCR47/R47F	0.7/1.5	1.6	1.5	1.7	1.5	1.5
RCR57/R57F	0.8/1.7	1.9	1.7	2.1	1.7	1.7
RCR67/R67F	1.1/2.3	2.6/3.5	2.8	3.2	1.8	2
RCR77/R77F	1.2/3	3.8/4.3	3.6	4.3	2.5	3.4
RCR87/R87F	2.3/6	6.7/8.4	7.2	7.7	6.3	6.5
RCR97	4.6/9.8	11.7/14	11.7	13.4	11.3	11.7
RCR107	6/13.7	16.3	16.9	19.2	13.2	15.9
RCR137	10/25	28	29.5	31.5	25	25
RCR147	15.4/40	46.5	48	52	39.5	41
RCR167	27/70	82	78	88	66	69

減速器型號 Gear unit type	注油量(升) Fill quantity(L)					
	M1 ¹⁾	M2 ¹⁾	M3	M4	M5	M6
RCRF17	0.25	0.6	0.35	0.6	0.35	0.35
RCRF27	0.25/0.4	0.7	0.4	0.7	0.4	0.4
RCRF37	0.4/1	0.9	1	1.1	0.8	1
RCRF47	0.7/1.5	1.6	1.5	1.7	1.5	1.5
RCRF57	0.8/1.7	1.8	1.7	2	1.7	1.7
RCRF67	1.1/2.5	2.7/3.6	2.7	3.1	1.9	2.1
RCRF77	1.2/2.6	3.8/4.1	3.3	4.1	2.4	3
RCRF87	2.4/6	6.8/7.9	7.1	7.7	6.3	6.4
RCRF97	5.1/10.2	11.9/14	11.2	14	11.2	11.8
RCRF107	6.3/14.9	15.9	17	19.2	13.1	15.9
RCRF137	9.5/25	27	29	32.5	25	25
RCRF147	16.4/42	47	48	52	42	42
RCRF167	26/70	82	78	88	65	71

1)多級減速機中較大的減速機須注較多的油量。
 The output end gear unit of multi-stage gear units be filled with the larger oil volume.

減速器型號 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3	M4	M5	M6
RCRX57	0.6	0.8	1.3	1.3	0.9	0.9
RCRX67	0.8	0.8	1.7	1.9	1.1	1.1
RCRX77	1.1	1.5	2.6	2.7	1.6	1.6
RCRX87	1.7	2.5	4.8	4.8	2.9	2.9
RCRX97	2.1	3.4	7.4	7	4.8	4.8
RCRX107	3.9	5.6	11.6	11.9	7.7	7.7

減速器型號 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3	M4	M5	M6
RCRX57	0.5	0.8	1.1	1.1	0.7	0.7
RCRX67	0.7	0.8	1.5	1.7	1	1
RCRX77	0.9	1.5	2.4	2.5	1.6	1.6
RCRX87	1.6	2.5	4.9	4.7	2.9	2.9
RCRX97	2.1	3.6	7.1	7	4.8	4.8
RCRX107	3.1	5.9	11.2	10.5	7.2	7.2

平行軸斜齒輪減速器(RCF系列)
Parallel shaft helical gear units.(RCF..)
RCF..,RCFA..B,RCFH..B,RCFV..B

減速器型號 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3	M4	M5	M6
RCF37	1	1.2	0.7	1.2	1	1.1
RCF47	1.5	1.8	1.1	1.9	1.5	1.7
RCF57	2.6	3.7	2.1	3.5	2.8	2.9
RCF67	2.7	3.8	1.9	3.8	2.9	3.2
RCF77	5	7.3	4.3	8	6	6.3
RCF87	10	13.0	7.7	13.8	10.8	11
RCF97	18.5	22.5	12.6	25.2	18.5	20
RCF107	24.5	32	19.5	37.5	27	27
RCF127	40.5	55	34	61	46.5	47
RCF157	69	104	63	105	86	78

RCFF..

減速器型號 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3	M4	M5	M6
RCFF37	1	1.2	0.7	1.3	1	1.1
RCFF47	1.6	1.9	1.1	1.9	1.5	1.7
RCFF57	2.8	3.8	2.1	3.7	2.9	3
RCFF67	2.7	3.8	1.9	3.8	2.9	3.2
RCFF77	5.1	7.3	4.3	8.1	6	6.3
RCFF87	10.3	13.2	7.8	14.1	11	11.2
RCFF97	19	22.5	12.6	25.5	18.9	20.5
RCFF107	25.5	32	19.5	38.5	27.5	28
RCFF127	41.5	56	34	63	46.5	49
RCFF157	72	105	64	106	87	79

RCFA..,RCFH..,RCFV..,RCFAF..,RCFHF..,RCFVF..,RCFAZ..,RCFHZ..,RCFVZ

減速器型號 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3	M4	M5	M6
RCF..37	1	1.2	0.7	1.2	1	1.1
RCF..47	1.5	1.8	1.1	1.9	1.5	1.7
RCF..57	2.7	3.8	2.1	3.6	2.9	3
RCF..67	2.7	3.8	1.9	3.8	2.9	3.2
RCF..77	5	7.3	4.3	8	6	6.3
RCF..87	10	13.0	7.7	13.8	10.8	11
RCF..97	18.5	22.5	12.6	25.0	18.5	20
RCF..107	24.5	32	19.5	37.5	27	27
RCF..127	39	55	34	61	45	46.5
RCF..157	68	103	62	104	85.	77

斜齒輪-錐齒輪減速器(RCK系列)
 Helical-bevel Gear unit (RCK..)

RCK...,RCKA..B,RCKH..B,RCKV..B

減速器型號 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3	M4	M5	M6
RCK..37	0.5	1	1	1.3	1	1
RCK..47	0.8	1.3	1.5	2	1.6	1.6
RCK..57	1.2	2.3	2.5	3	2.6	2.4
RCK..67	1.1	2.4	2.6	3.4	2.6	2.6
RCK..77	2.2	4.1	4.4	5.9	4.2	4.4
RCK..87	3.7	8	8.7	10.9	7.8	8
RCK..97	7	14	15.7	20	15.7	15.5
RCK..107	10	21	25.5	33.5	24	24
RCK..127	21	41.5	44	54	40	41
RCK..157	31	62	6.5	90	58	62
RCK..167	35	100	100	125	85	85
RCK..187	60	170	170	205	130	130

RCKF..

減速器型號 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3	M4	M5	M6
RCKF37	0.5	1.1	1.1	1.5	1	1
RCKF47	0.8	1.3	1.7	2.2	1.6	1.6
RCKF57	1.3	2.3	2.7	3	2.9	2.7
RCKF67	1.1	2.4	2.8	3.6	2.7	2.7
RCKF77	2.1	4.1	4.4	6	4.5	4.5
RCKF87	3.7	8.2	9	11.9	8.4	8.4
RCKF97	7	14.7	17.3	21.5	15.7	16.5
RCKF107	10	22	26	35	25	25
RCKF127	21	41.5	46	55	41	41
RCKF157	31	66	69	92	62	62

RCKA...,RCKH...,RCKV...,RCKAF...,RCKHF...,RCKVF...,RCKAZ...,RCKHZ...,RCKVZ

減速器型號 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3	M4	M5	M6
RCK..37	0.5	1	1	1.4	1	1
RCK..47	0.8	1.3	1.6	2.1	1.6	1.6
RCK..57	1.3	2.3	2.7	3	2.9	2.7
RCK..67	1.1	2.4	2.7	3.6	2.6	2.6
RCK..77	2.1	4.1	4.6	6	4.4	4.4
RCK..87	3.7	8.2	8.8	11.1	8	8
RCK..97	7	14.7	15.7	20	15.7	15.7
RCK..107	10	20.5	24	32	24	24
RCK..127	21	41.5	43	52	40	40
RCK..157	31	66	67	87	62	62
RCK..167	35	100	100	125	85	85
RCK..187	60	170	170	205	130	130

 斜齒輪-蝸輪蝸杆減速器(RCS系列)
 Helical-worm Gear units.(RCS..)

RCS..

減速器型號 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3 ¹⁾	M4	M5	M6
RCS37	0.25	0.4	0.5	0.6	0.4	0.4
RCS47	0.35	0.8	0.7	1.1	0.8	0.8
RCS57	0.5	1.2	1	1.5	1.3	1.3
RCS67	1	2.0	2.2/3.1	3.2	2.6	2.6
RCS77	1.9	4.2	3.7/5.4	6	4.4	4.4
RCS87	3.3	8.1	6.9/10.4	12	8.4	8.4
RCS97	6.8	15	13.4/18	22.5	17	17

1) 多級減速箱中較大的減速機須注較多的油量。
 The output end unit of multi-stage gear units must be filled with the larger oil volume.

RCSF..

減速器型號 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3 ¹⁾	M4	M5	M6
RCSF37	0.25	0.4	0.5	0.6	0.4	0.4
RCSF47	0.4	0.9	0.9	1.2	1.0	1
RCSF57	0.5	1.2	1	1.6	1.4	1.4
RCSF67	1	2.2	2.3/3	3.2	2.7	2.7
RCSF77	1.9	4.1	3.9/5.8	6.5	4.9	4.9
RCSF87	3.8	8	7.1/10.1	12	9.1	9.1
RCSF97	7.4	15	13.8/18.8	23.6	18	18

1) 多級減速箱中較大的減速機須注較多的油量。
 The output end unit of multi-stage gear units must be filled with the larger oil volume.

RCSA...,RCSH...,RCSAF...,RCSHF...,RCSAZ...,RCSHZ.

減速器型號 Gear unit type	注油量(升) Fill quantity(L)					
	M1	M2	M3 ¹⁾	M4	M5	M6
RCS..37	0.25	0.4	0.5	0.6	0.4	0.4
RCS..47	0.4	0.8	0.7	1.1	0.8	0.8
RCS..57	0.5	1.1	1	1.6	1.2	1.2
RCS..67	1	2	1.8/2.6	2.9	2.5	2.5
RCS..77	1.8	3.9	3.6/5	5.9	4.5	4.5
RCS..87	3.8	7.4	6/8.7	11.2	8	8
RCS..97	7	14	11.4/16	21	15.7	15.7

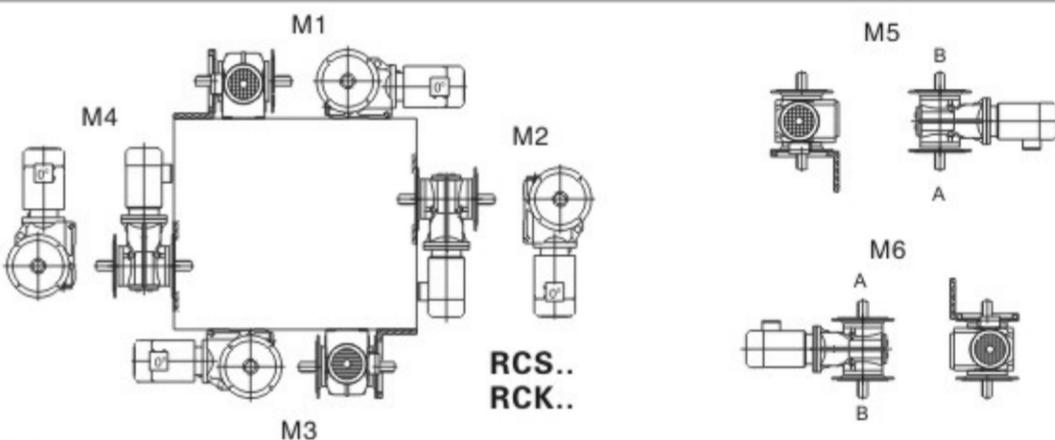
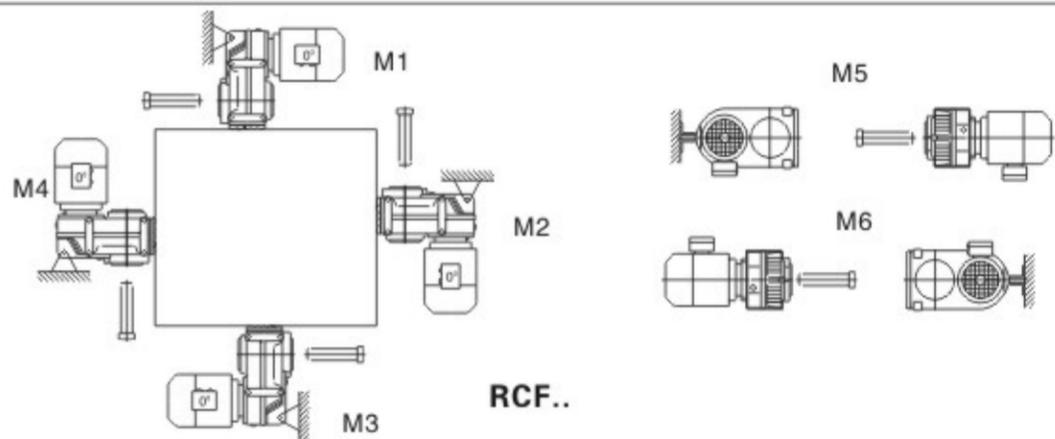
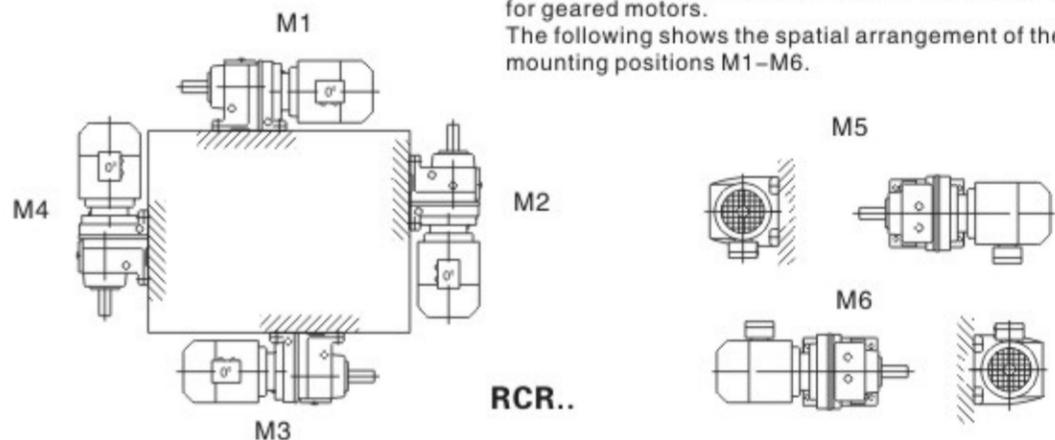
1) 多級減速箱中較大的減速機須注較多的油量。
 The output end unit of multi-stage gear units must be filled with the larger oil volume.

10. 安裝位置 Monnting Position

10.1 安裝位置概述

10.1 Mounnting position designation

安裝位置說明：RISC減速電機有M1..M6共6種安裝位置。
下面的圖表說明了減速器安裝位置M1..M6的空間排列。
RISC differentiates between six mounnting position M1-M6 for geared motors.
The following shows the spatial arrangement of the gear units in mounting positions M1-M6.



重要的訂貨信息
Important indention information
除了安裝位置以外，下面訂貨資料也是必需的，以便精確描述要求的減速電機外形。
Except the mounting position, the indention informations for depicting the figure of gear

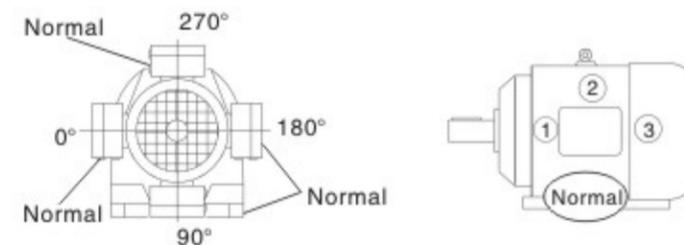
電機接線盒位置
電機接線盒上出線口位置
對直角軸減速機：輸出方向
對直角軸型帶收縮盤軸式減速機：連接端帶或不帶法蘭
帶逆止器的減速電機：設備的旋轉方向

Unit exactly are necessary
Position of the motor terminal box
For the right-angle shaft reducers:output shaft connection.
For the right-angle shaft reducers:with shrink-disk:with or without feange.
For the drive with a backstop: the Direction of rotation.

電機接線盒和出線嘴位置

Position of the motor terminal box cable entry

電機接線盒從電機風扇罩看（如圖），位置分別表示為0°，90°，180°或270°
出線嘴的位置也可以進行選擇（如圖），分別表示為“Normal”，“1”，“2”或“3”
Possible positions of the teminal box are 0° ,90° ,180° or 270° as ciewed onto the fan guard=B-side
In addition, the position of the cable entry can be selected. The possibilities are "X" (=normal position), "1", "2", or "3"



圖：接線盒與出線嘴的位置
Fig:Position of the terminal box and cable entry

對於接線盒，除非給出了詳細信息，否則接線盒按0°，出線嘴按“Normal”供貨。
我們建議安裝位置在M3時，應選擇出線嘴位置為“2”。

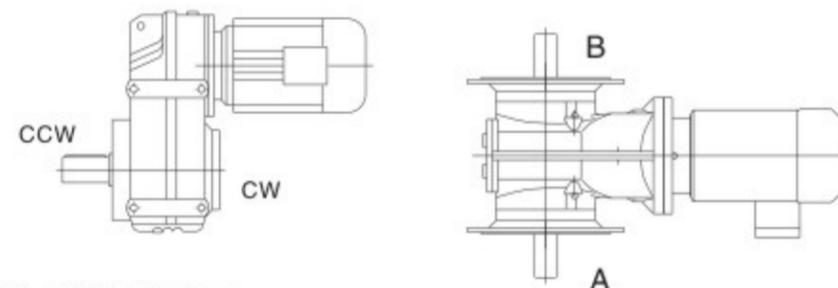
注意：
對於RCR17D71..減速電機，接線盒位置不能標為90°
D71..BMG接線盒位置為90°時，出線嘴位置不能標為“2”。
Unless other information is given regarding the terminal box,the 0° type with "X" cable entry will be supplied.We recommend selecting cable enty "2"with mounting position M3.
The terminal box cannot be positioned at 90° on the RCR17D71 geared motor.
Cable entry "2" is not possible with the D71..BMG motor with terminal box position 90°



帶逆止器減速電機的旋轉方向

Direction of totatiom of the drive with a backstop

若減速電機帶逆止器，規定出減速電機的旋轉方向是很必要的。按下列標識：
從輸出軸看：順時針(CW)為向右旋轉逆時針(CCW)為向左旋轉
If the drive has a RS backstop,it is necessary to stipulate the direction of drive rotation.
The following defintion applies:
Looking onto the output shaft:Clockwise(CW)=Rotating to the right
Counterclockwise(CCW)=Rotating to the left



圖：輸出軸的旋轉方向
Fig: Direction of rotation of the output shaft

對於直角軸型式減速電機，規定出給定的旋轉方向是從A端看還是從B端看的，這是非常必要的。
In right-angle gear units, it is necessary to indicate if the direction of rotation is given where be looked from the A or B end.

輸出軸的位置
Position of the output shaft

對於直角軸型減速機，規定出軸方向是必要的：· A或B，還是A+B(見圖)
In right-angle gear units, it is necessary to indicate the position of the output shaft and output flange: A or B or A+B

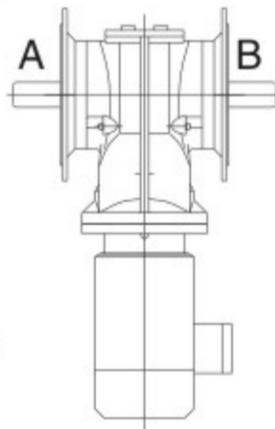


圖:出軸方向
Fig:Position of the Output shaft

帶鎖緊盤的軸裝直角軸減速機
Position of the connection end in tight-angle gear units with shrink disk

對於軸裝式帶鎖緊盤的正文軸型減速機，規定出A端還是B端為連接端並且連接端是否有法蘭是必要的。在圖中，A端是連接端，鎖緊盤在連接端對面。
In shaft mounted right-angle gear units with shrink disk, it is necessary to indicate whether the A or B end is the connection end. In Fig. The A end and is the connection end. The shrink disk is located opposite the connection end.

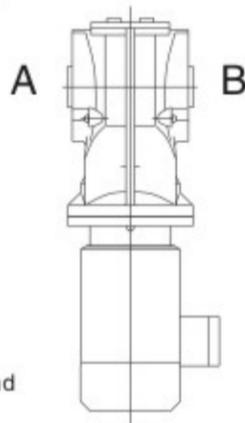


圖:連接端的位置
Fig:Position of the connection end

定購實例
Sample orders

對於RCK167/K187來講，安裝為M5和M6時，連接端祇能是在底部連接。
Connection end at bottom only is possible with RCK167/K187 helical-bevel gear units in mounting positions M5 and M6.

類型 Type	安裝位置 Mounting position	連接端 Shaft with	鎖緊盤位置 Position of shrink disk	法蘭 Flange	接線位置 Position of terminal box	出線端位置 Position of cable entry	旋轉方向 ration direction	出軸方向 Output direction
RCKF47D71D4/RS	M5	A	-	B	0°	"Normal"	CW	A
RCSF97D180M4	M2	A+B	-	A+B	180°	"2"	-	A+B
RCKH107D160L4	M1	A	B	-	270°	"3"	-	-

所有符號的含義
Symbols used

下表列出，在安裝位置上的符號及其含義
The following table shows the symbols used in the mounting position sheets and what they mean:

符號 Symbol	含義 Meaning
	通氣器 Breather valve
	油標 Oil level plug
	放油螺塞 Oil drain plug
	進線位置 In line plug

攪油損失
Churning losses

在某些安裝位置可能增加攪油損失，在下列結構中請向我公司諮詢
In creased churning losses may arise in some mounting positions, Please contact company in case of the following combinations.

安裝位置 Mounting position	減速器型號 Gear unit type	減速器規格 Gear unit size	輸入速度(rpm) Input speed
M2, M4	RCR	97-107	>2500
		>107	>1500
M2, M3, M4, M5, M6	RCF	97-107	>2500
		>107	>1500
	RCK	77-107	>2500
		>107	>1500
RCS	77-97	>2500	

RCR
RCF
RCK
RCS

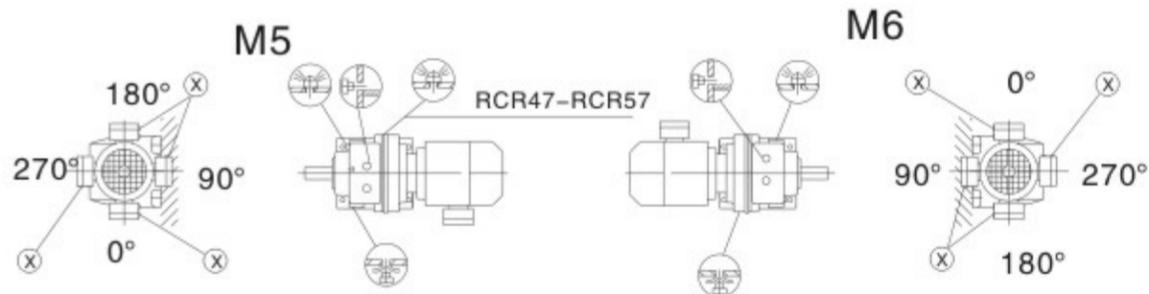
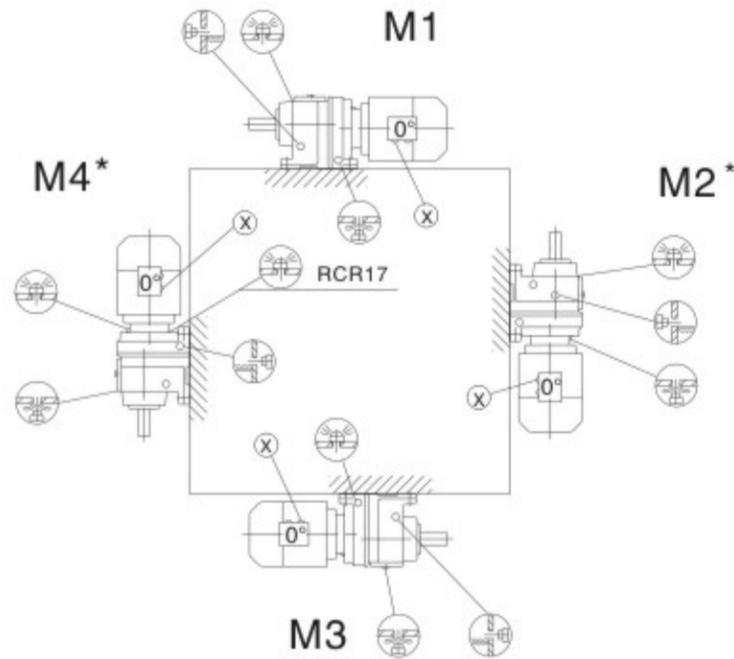
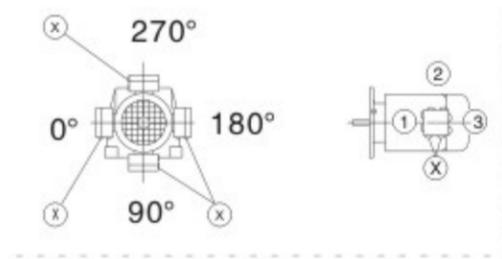
RCF
RCK
RCS

RC:系列齒輪減速電機

RC:系列齒輪減速電機

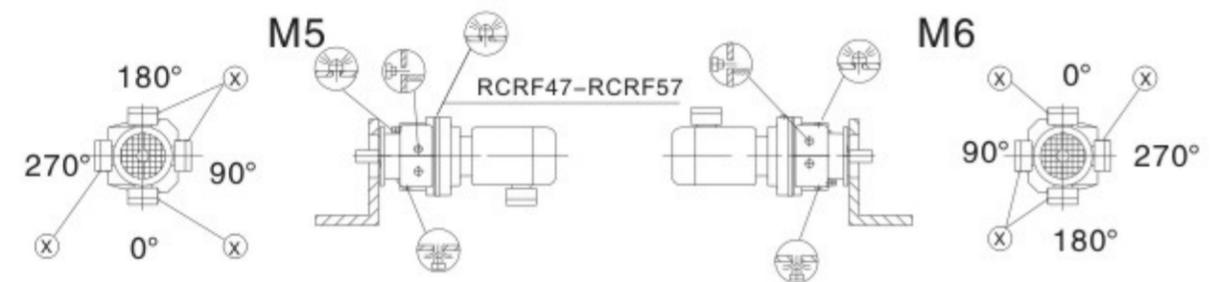
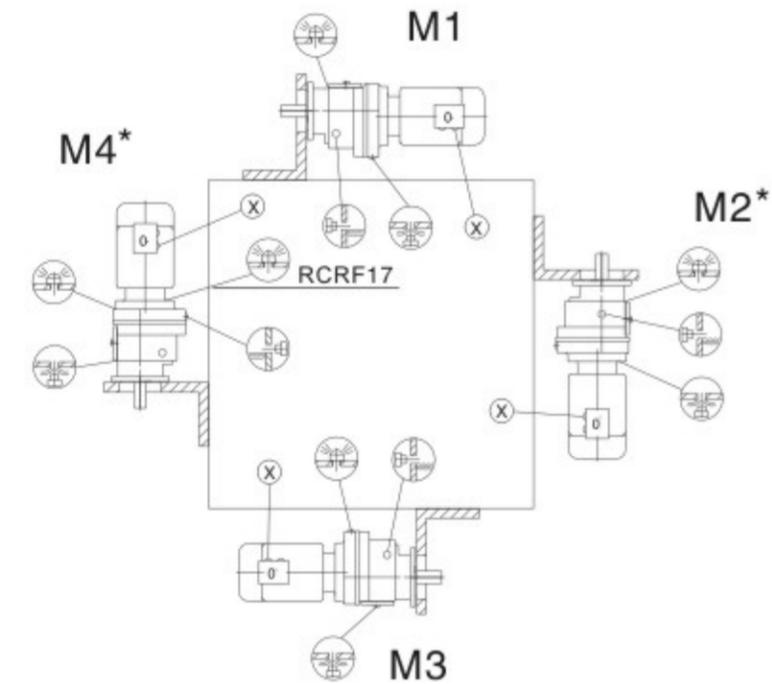
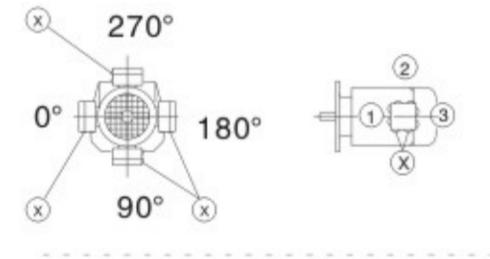
10.2 斜齒輪減速電機安裝位置
10.2 Mounting position of Helical gear unit

RCR17-RCR167



- RCR17,RCR27 M1,M3,M5,M6
- RCR47,RCR57 M5
- RCR17,RCR27

RCRF17-RCRF167



- RCRF17,RCRF27 M1,M3,M5,M6
- RCRF47,RCRF57 M5
- RCRF17,RCRF27

RCR..

RCF..

RCK..

RCS..

RCR..

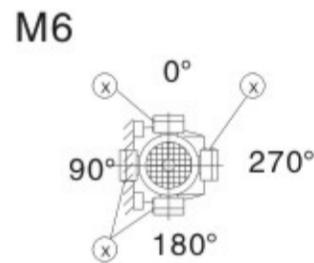
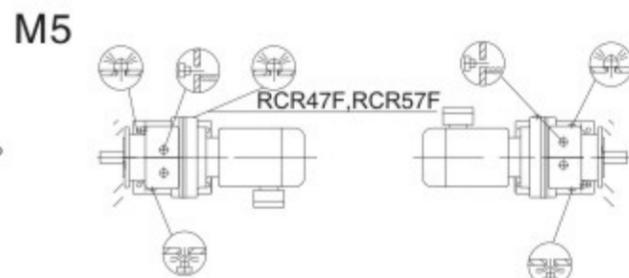
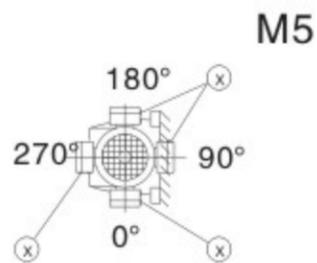
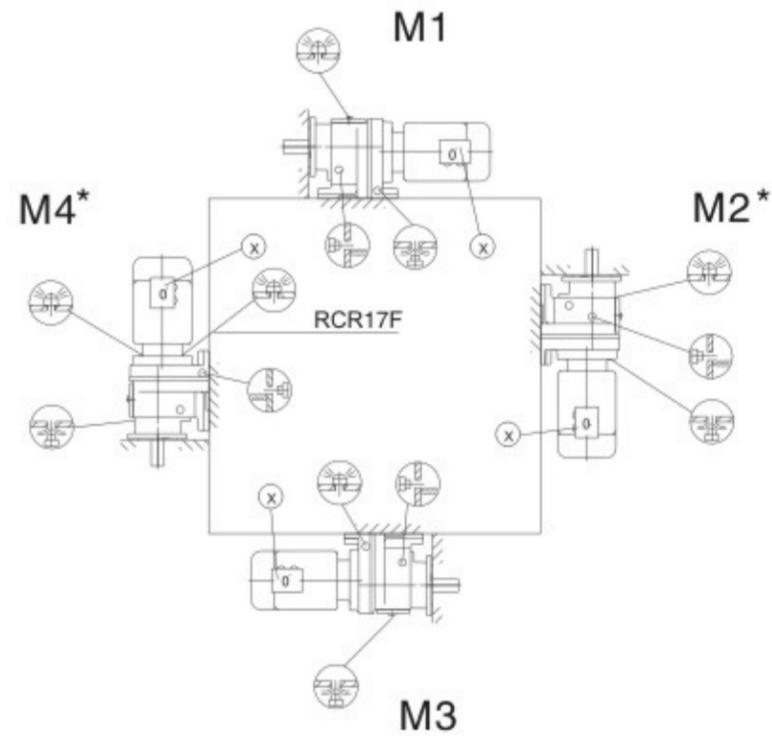
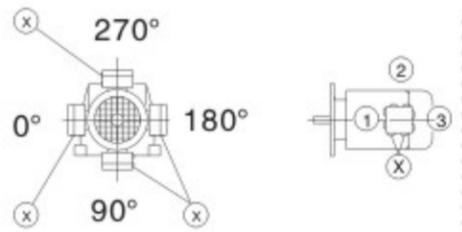
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RCK..

RCS..

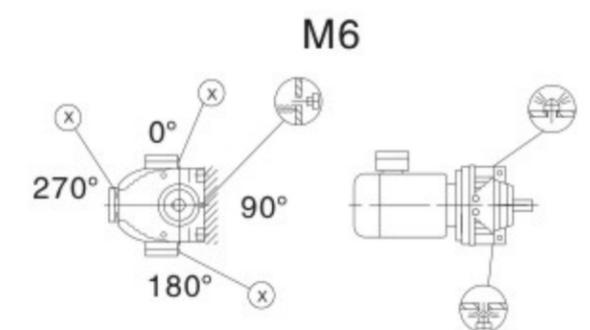
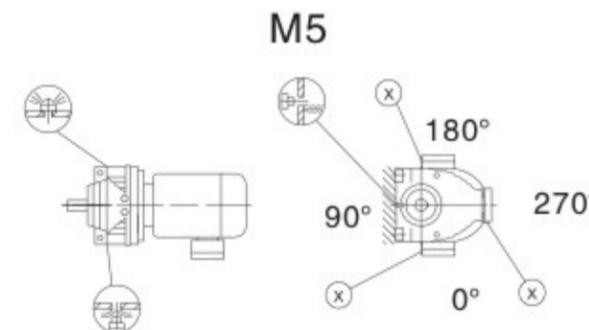
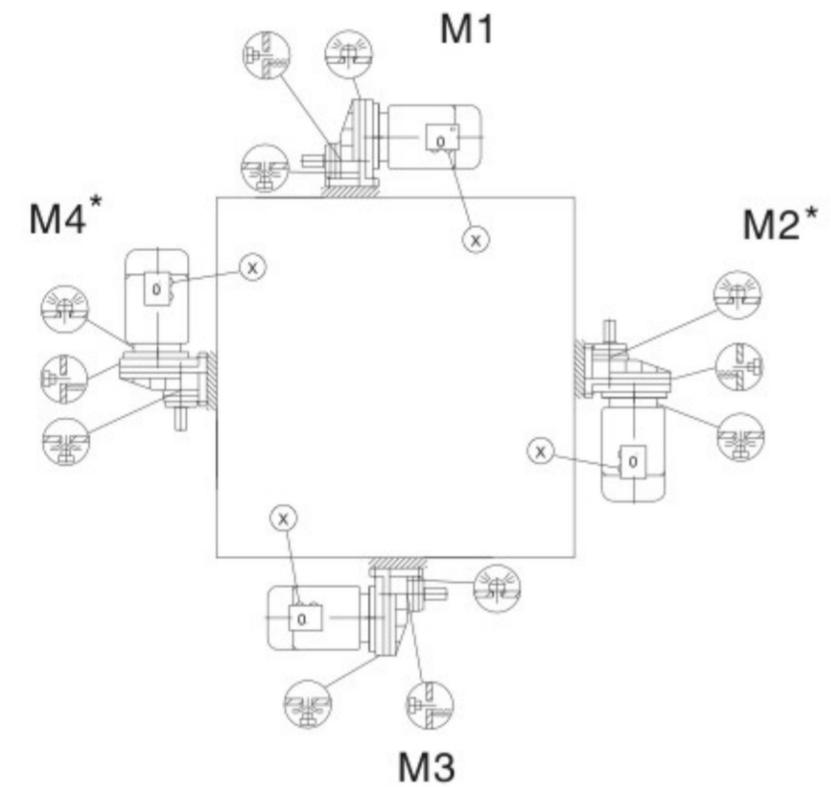
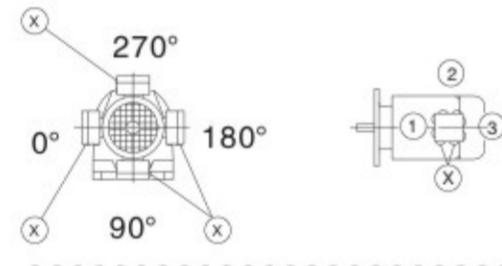
RCR..系列齒輪減速電機

RCR17F-RCR87F



- RCR17F, RCR27F M1, M3, M5, M6
- RCR47F, RCR57F M5
- RCR17F, RCR27F

RCRX57-RCRX107



RCR..

RCF..

RCK..

RCS..

RC..系列齒輪減速電機

RCR..

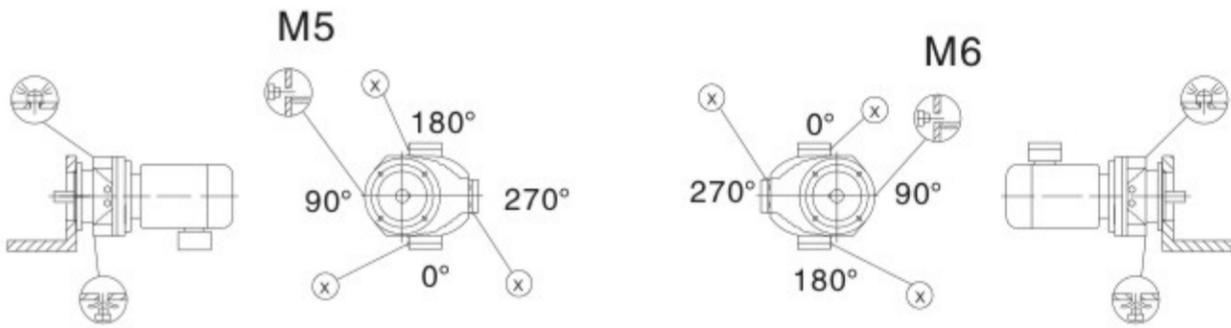
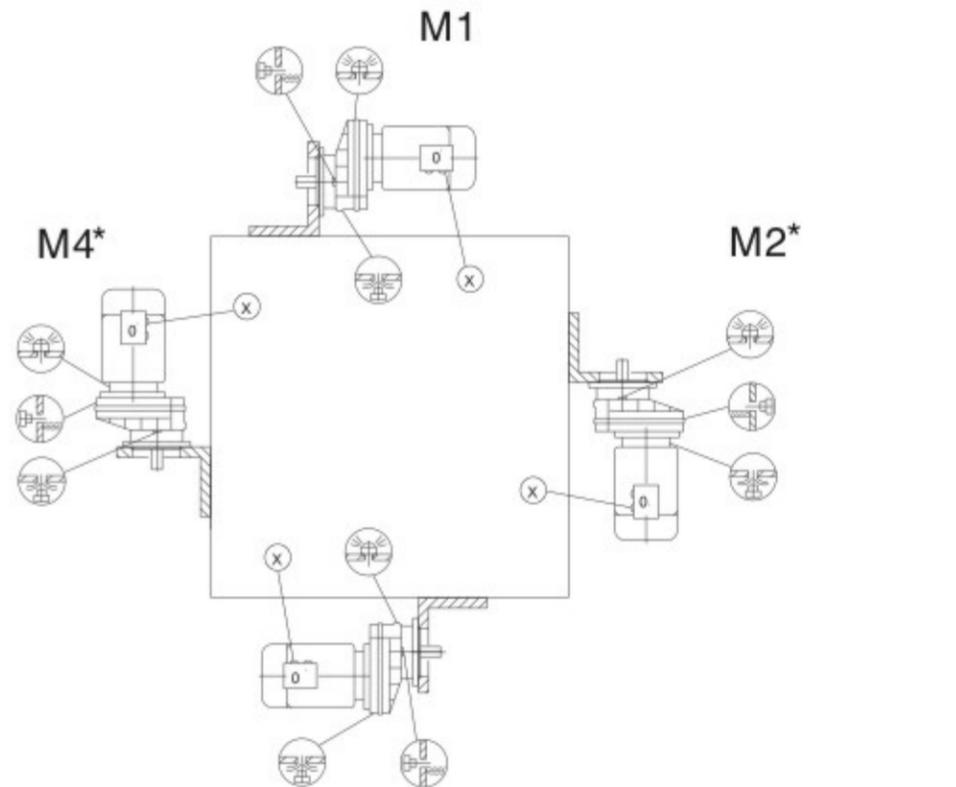
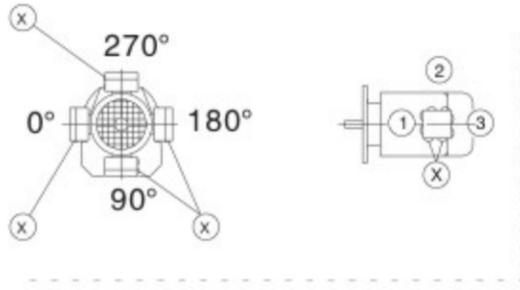
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RCK..

RCS..

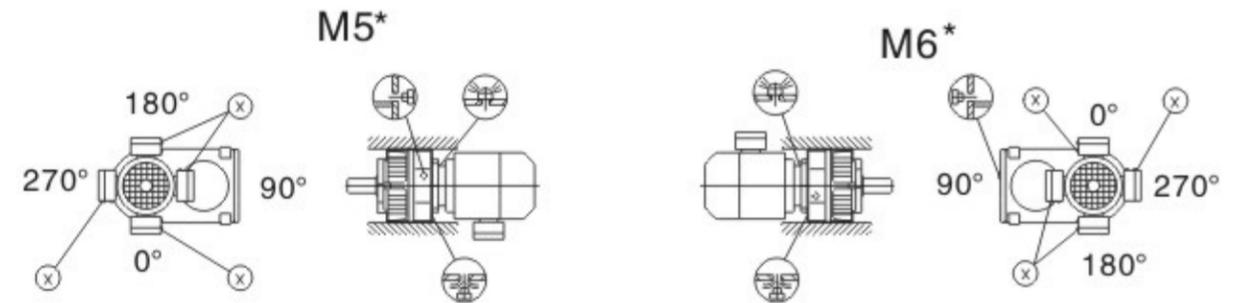
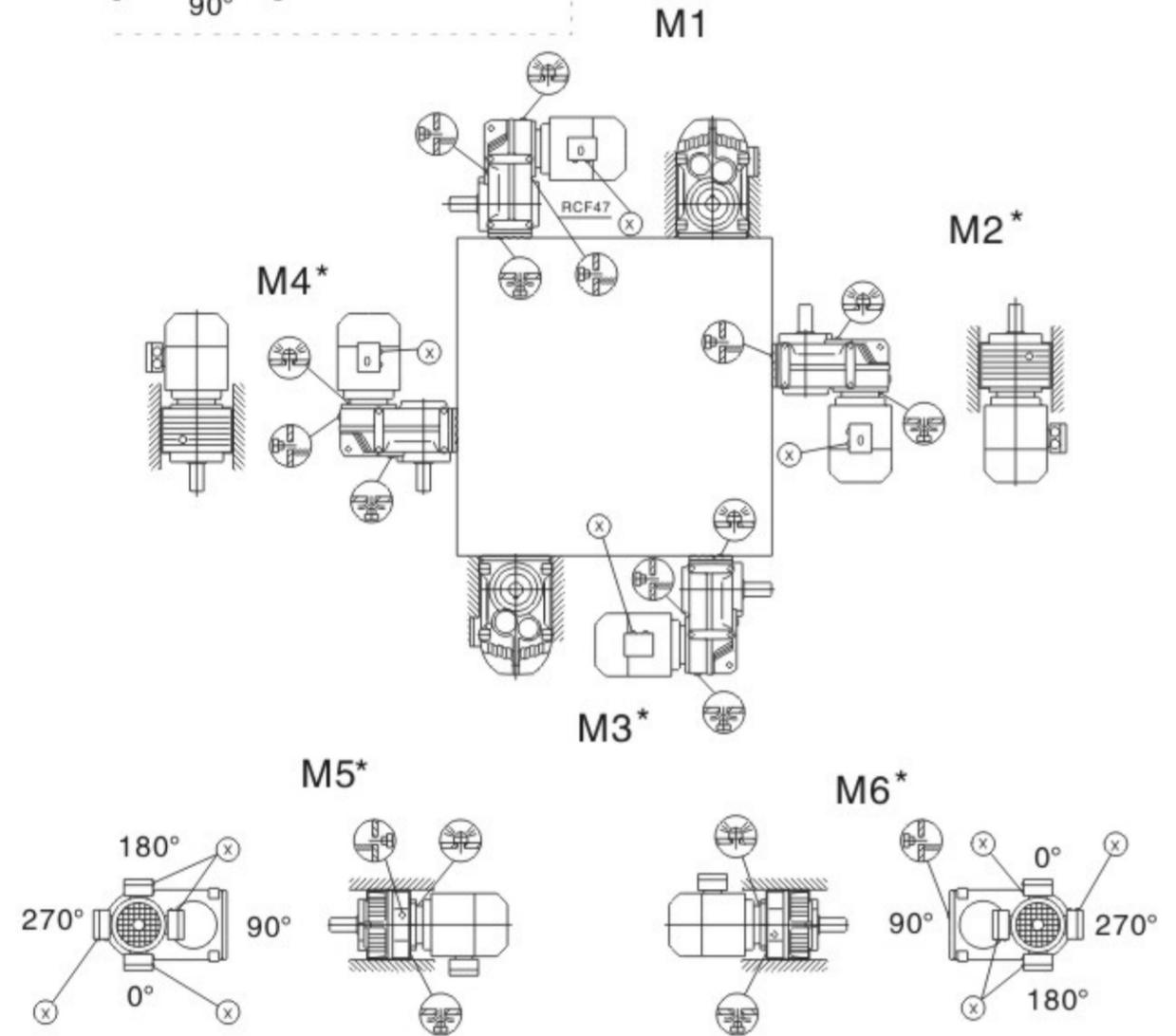
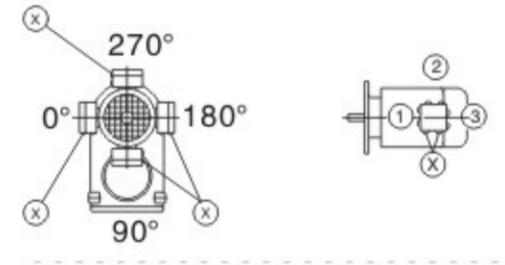
RC..系列齒輪減速電機

RCRXF57-RCRXF107



10.3 平行軸斜齒輪減速電機安裝位置
10.3 Mounting position of parallel shaft helical Gear unit

RCF/FA..B/FH27B-157B, RCFV27B-107B



RCF..27		M1, M3, M5, M6
RCF..27		M1-M6
RCF..27		M1, M3, M5, M6

RCR..

RCF..

RCK..

RCS..

RCR..

RCF..

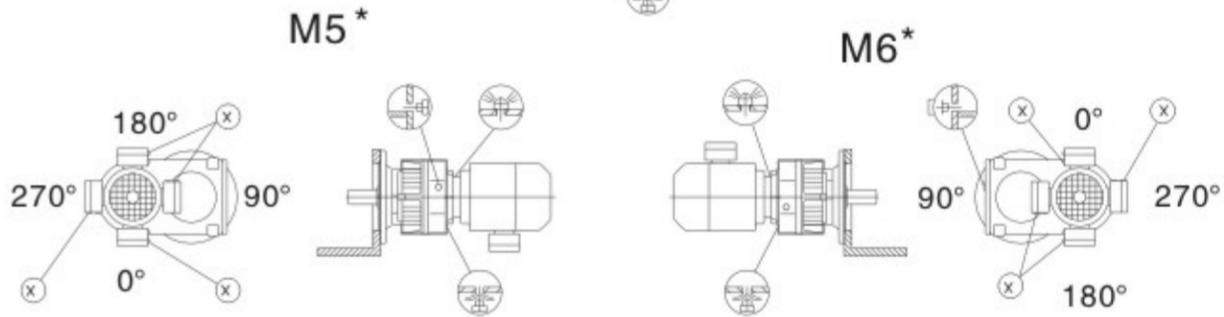
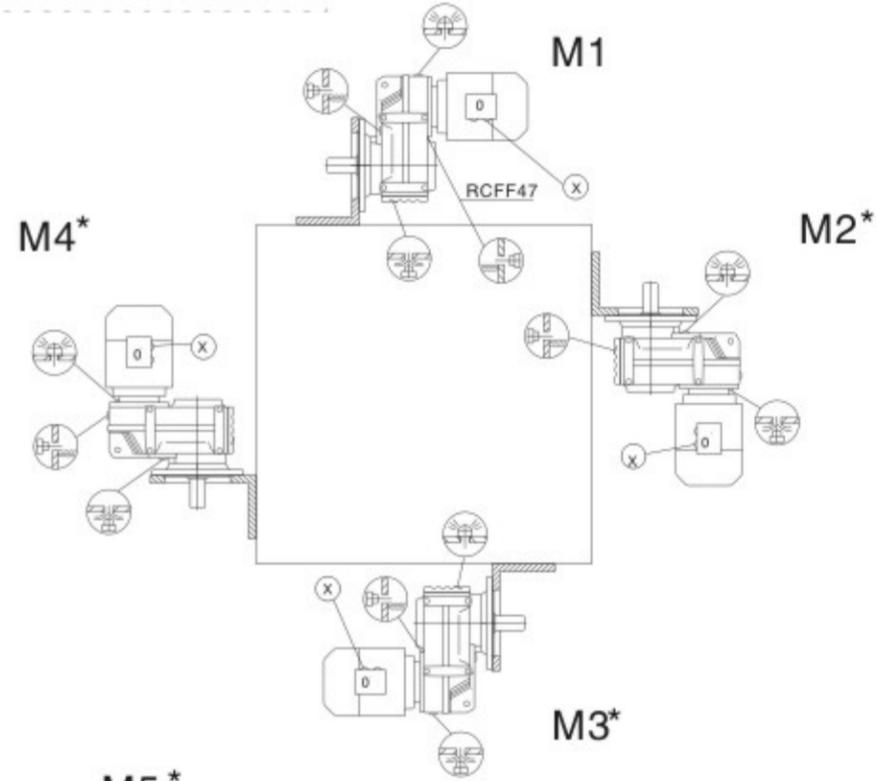
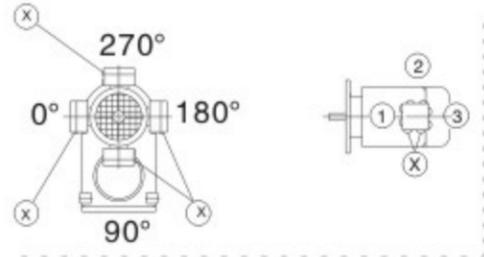
RCK..

RCS..

RC..系列齒輪減速電機

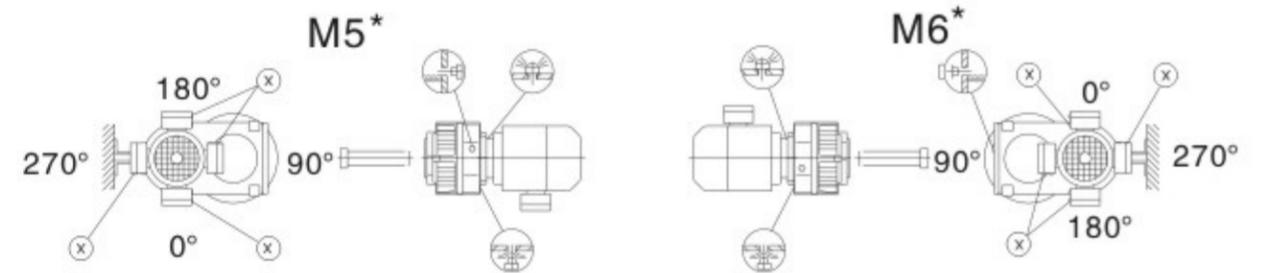
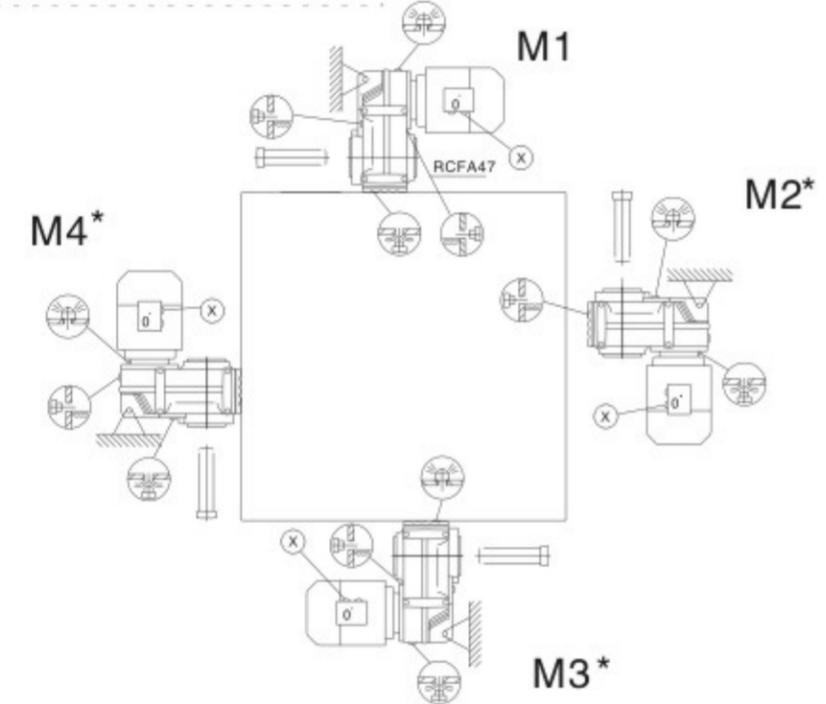
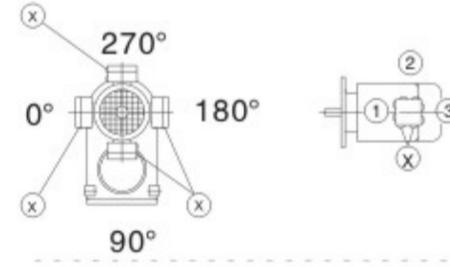
RC..系列齒輪減速電機

RCFF/FAF/FHF/FAZ/FHZ27-157, RCFVF/FVZ27-107



RCF..27		M1, M3, M5, M6
RCF..27		M1-M6
RCF..27		M1, M3, M5, M6

RCFA/FH27-157, RCFV27-107



RCF..27		M1, M3, M5, M6
RCF..27		M1-M6
RCF..27		M1, M3, M5, M6

RCR..

RCF..

RCK..

RCS..

RC..系列齒輪減速電機

RCR..

RCF..

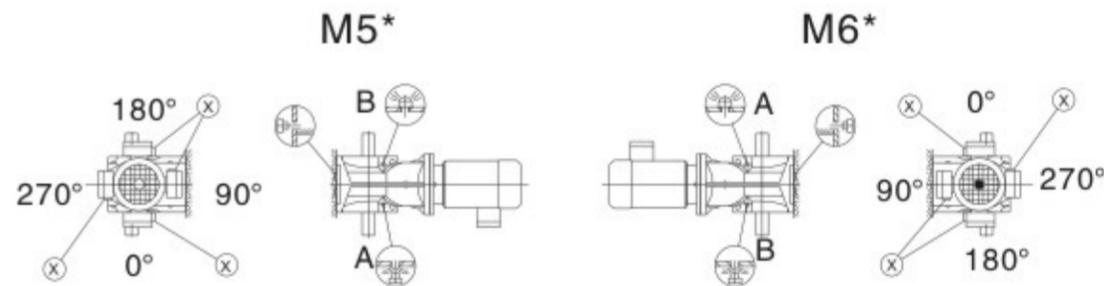
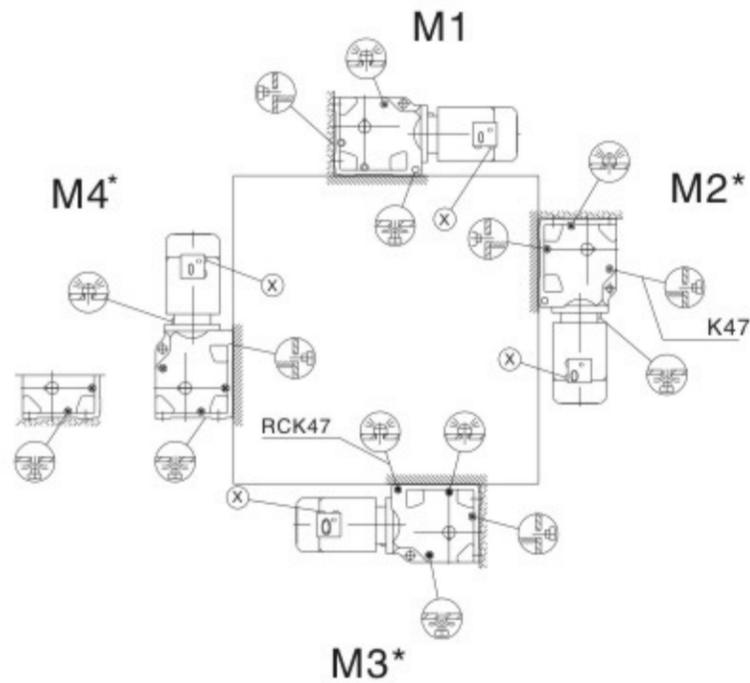
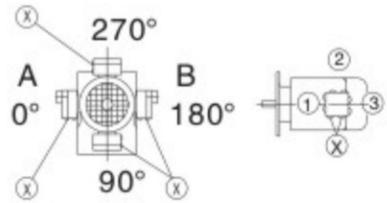
RCK..

RCS..

RC..系列齒輪減速電機

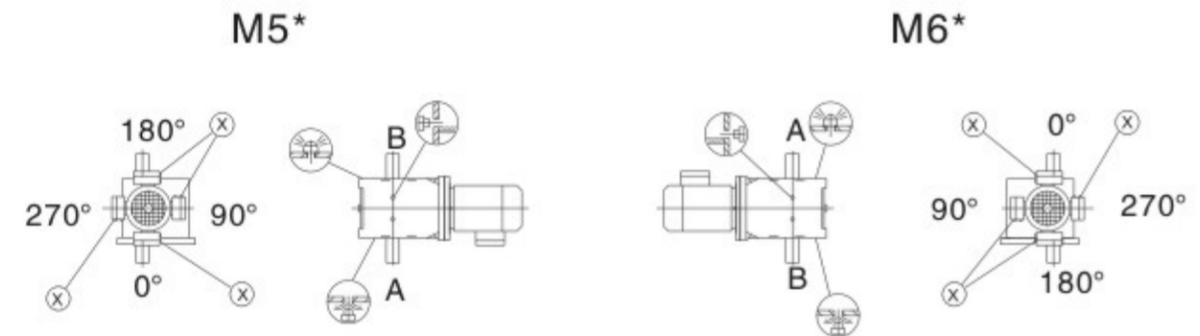
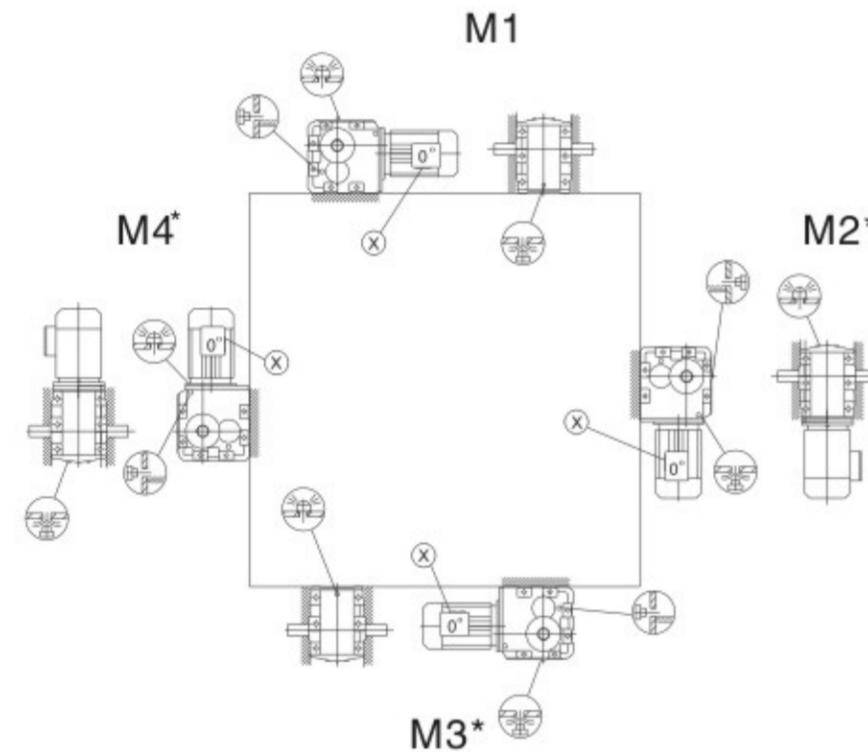
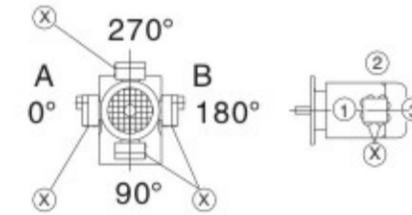
10.4 斜齒輪-傘齒輪減速電機安裝位置
Mounting position of helical - bevel Gear unit

RCK/KA..B/KH37B - 157B, RCKV37B - 107B



重要:請參見"減速器選型"中"徑向和軸向負載"部分(P19)
Important:Please refer to the information in the "Geared Motors"catalog.Optional Planning for Gear units Ouerhung and axial loads part"(P19)

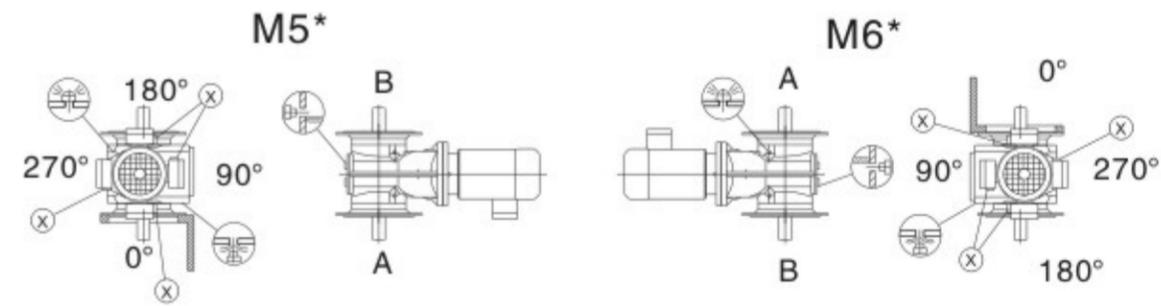
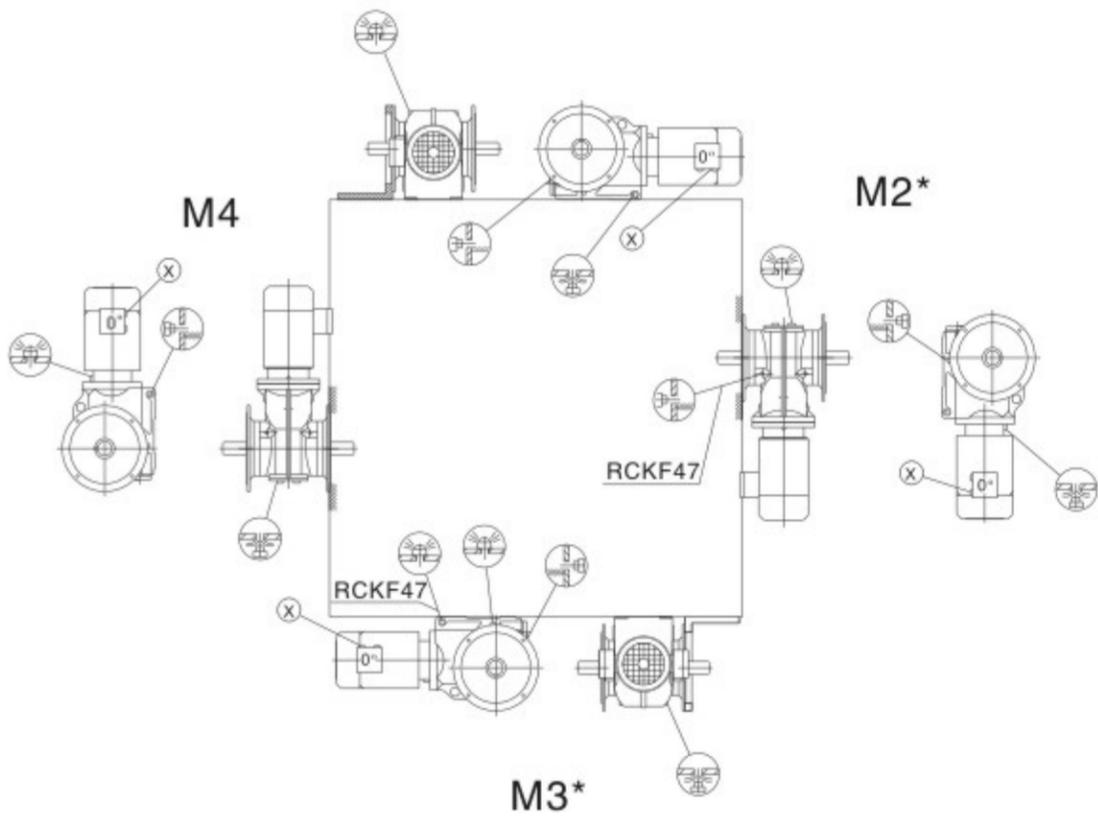
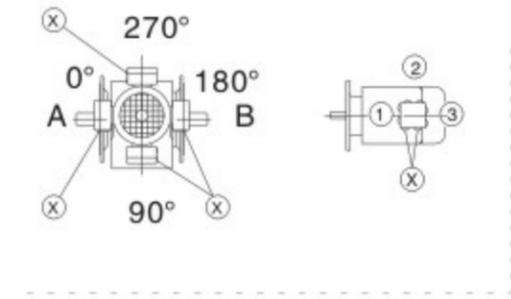
RCK167-187, RCKH167B-187B



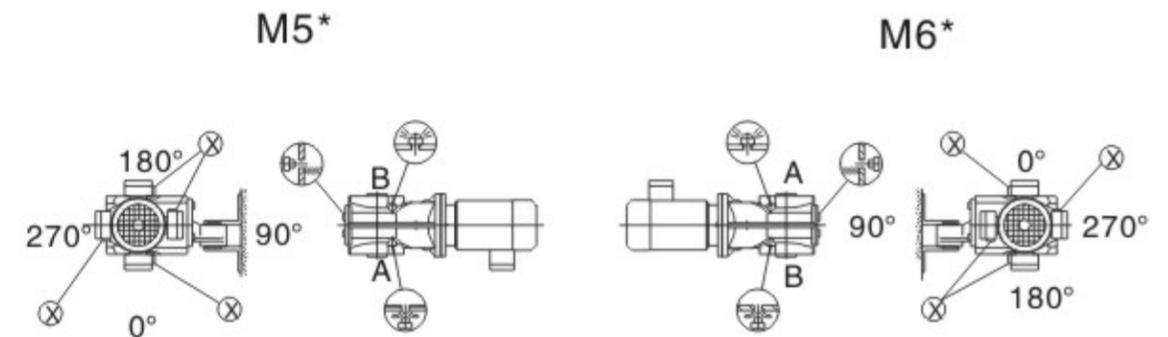
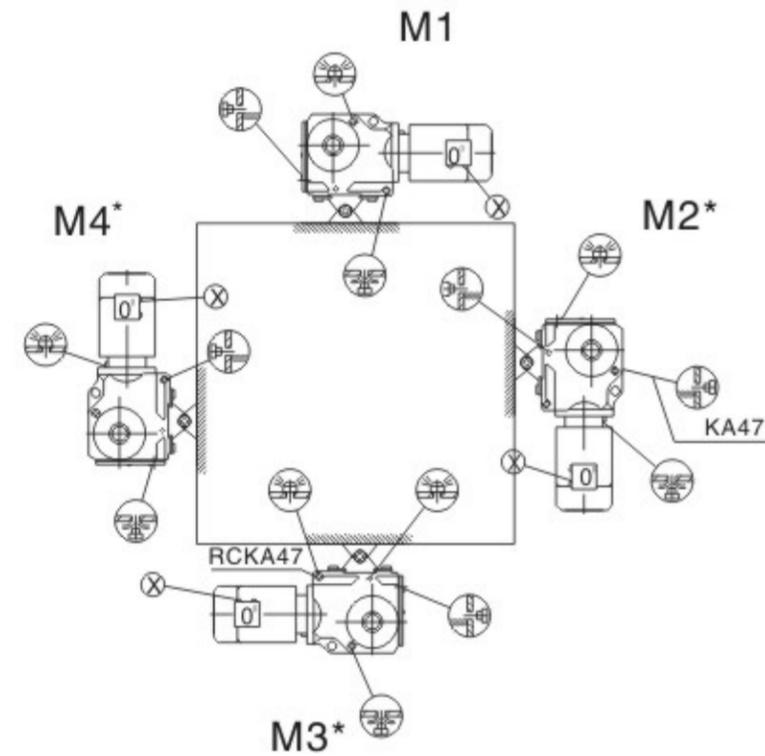
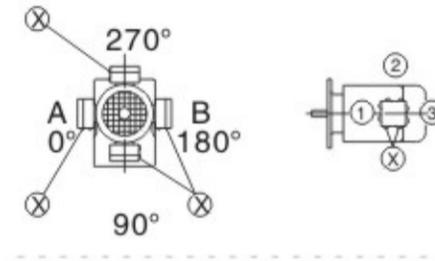
重要:請參見"減速器選型"中"徑向和軸向負載"部分(P19)
Important:Please refer to the information in the "Geared Motors"catalog.Optional Planning for Gear units Ouerhung and axial loads part"(P19)

RCP
RCF
RCK
RCS
RC

RCKF/KAF/KAZ/KHZ37-157, RCKVF/KVZ37-107



RCKA/KH37-157/T, RCKV37-107/T



RCP..

RCF..

RCK..

RCS..

RC..系列齒輪減速電機

RCP..

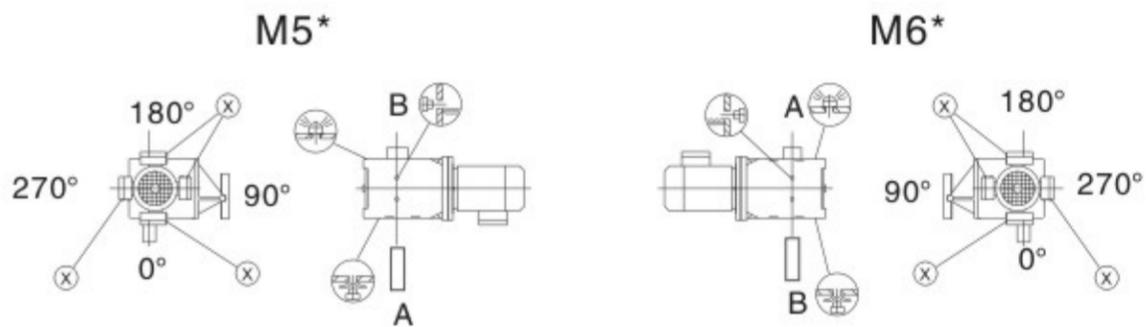
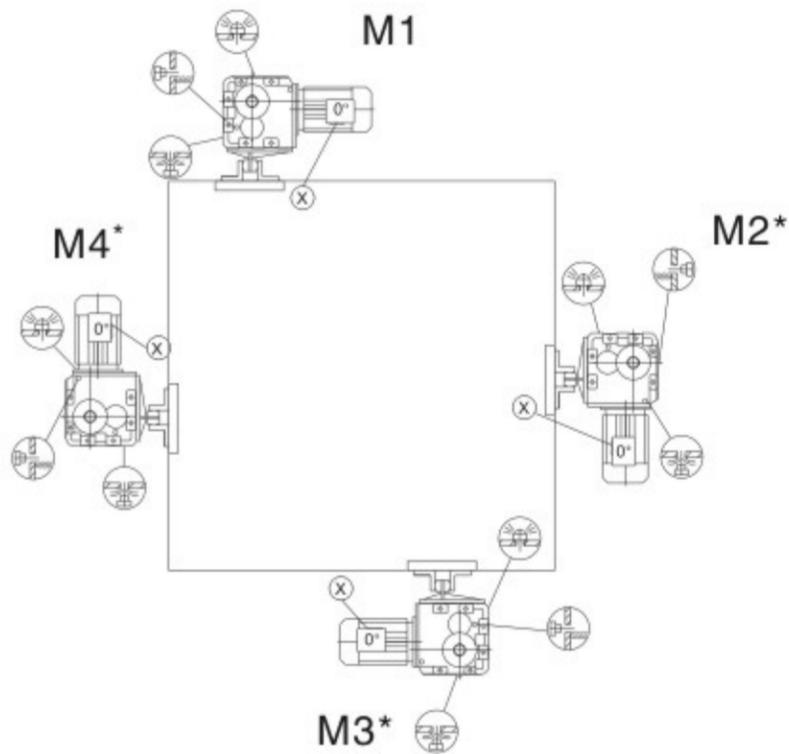
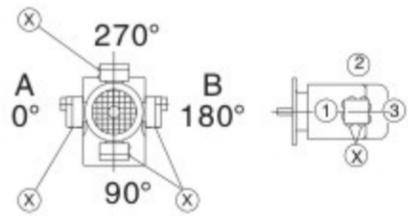
RCF..

RCK..

RCS..

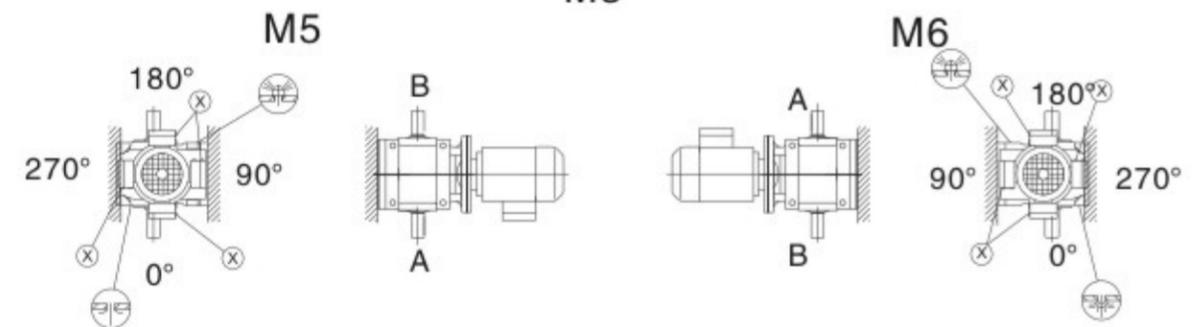
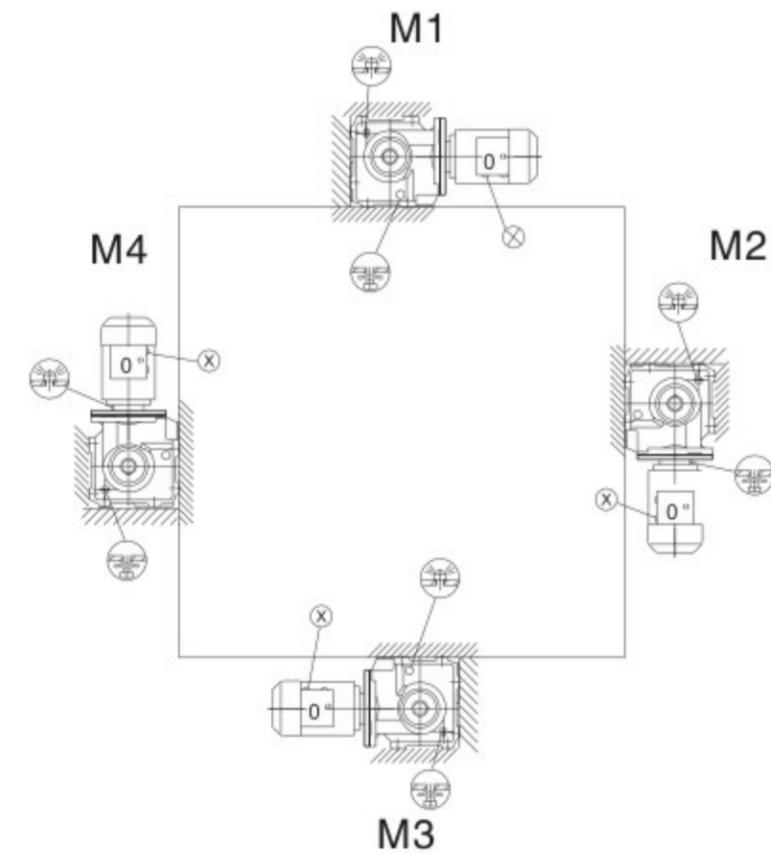
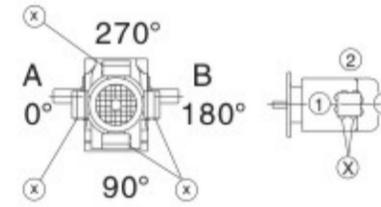
RC..系列齒輪減速電機

RCKH167-187



10.5 斜齒輪-蝸杆減速電機安裝位置
10.5 Mounting position of Helical-worm Gear motor

RCS37

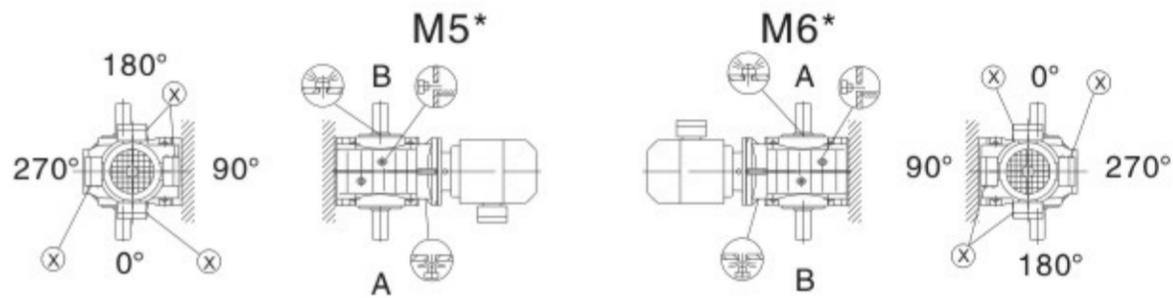
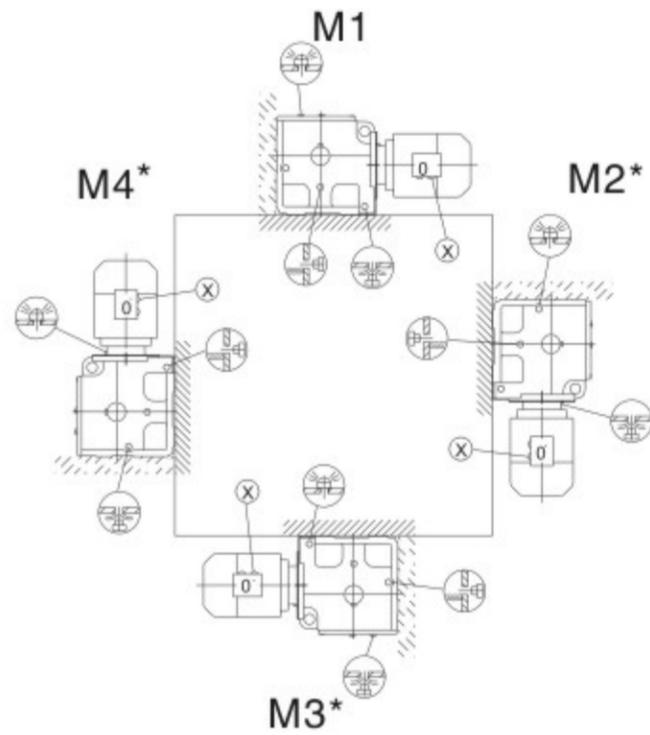
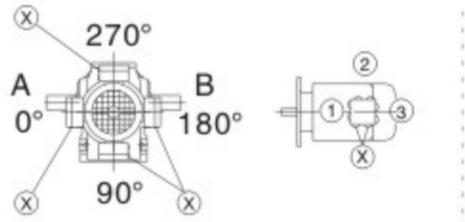


重要:請參見"減速器選型"中"徑向和軸向負載"部分(P19)
Important:Please refer to the information in the "Geared Motors"catalog,Optional Planning for Gear units Ouerhung and axial loads part"(P19)

RC..系列齒輪減速電機

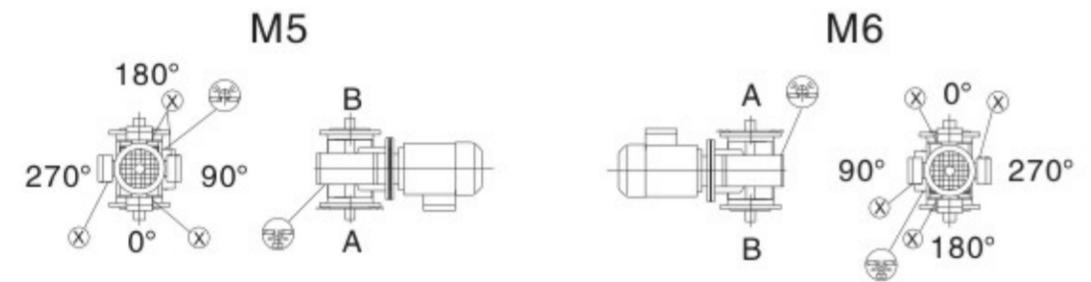
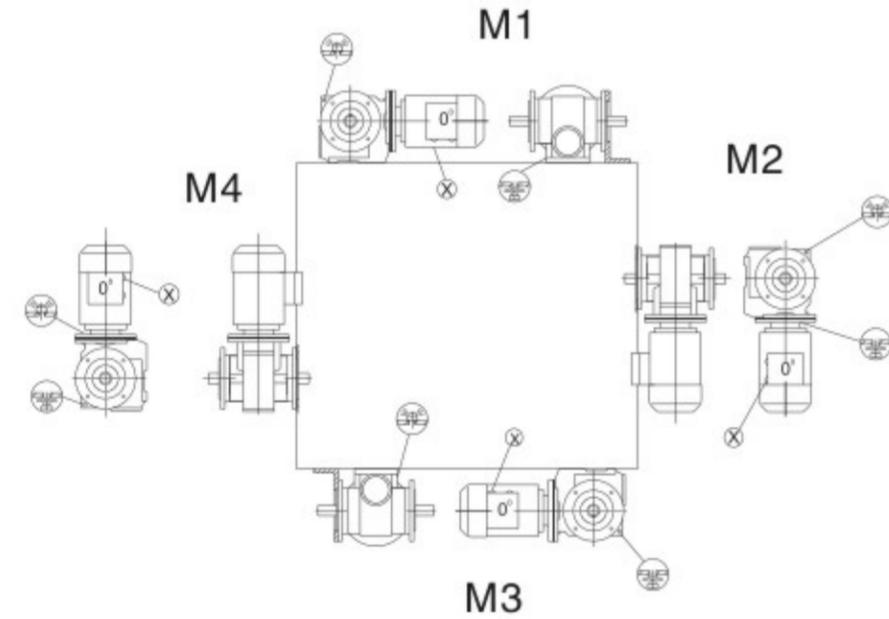
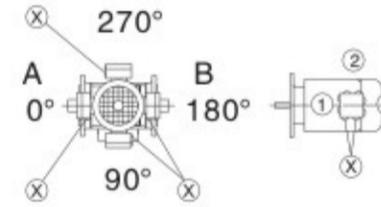
RC..系列齒輪減速電機

RCS47-RCS97

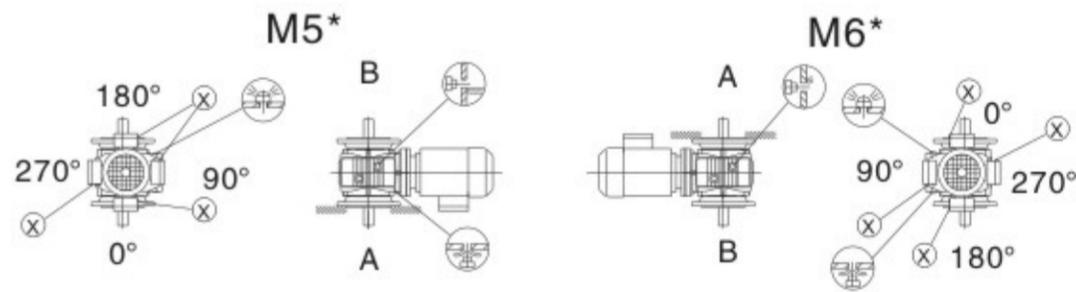
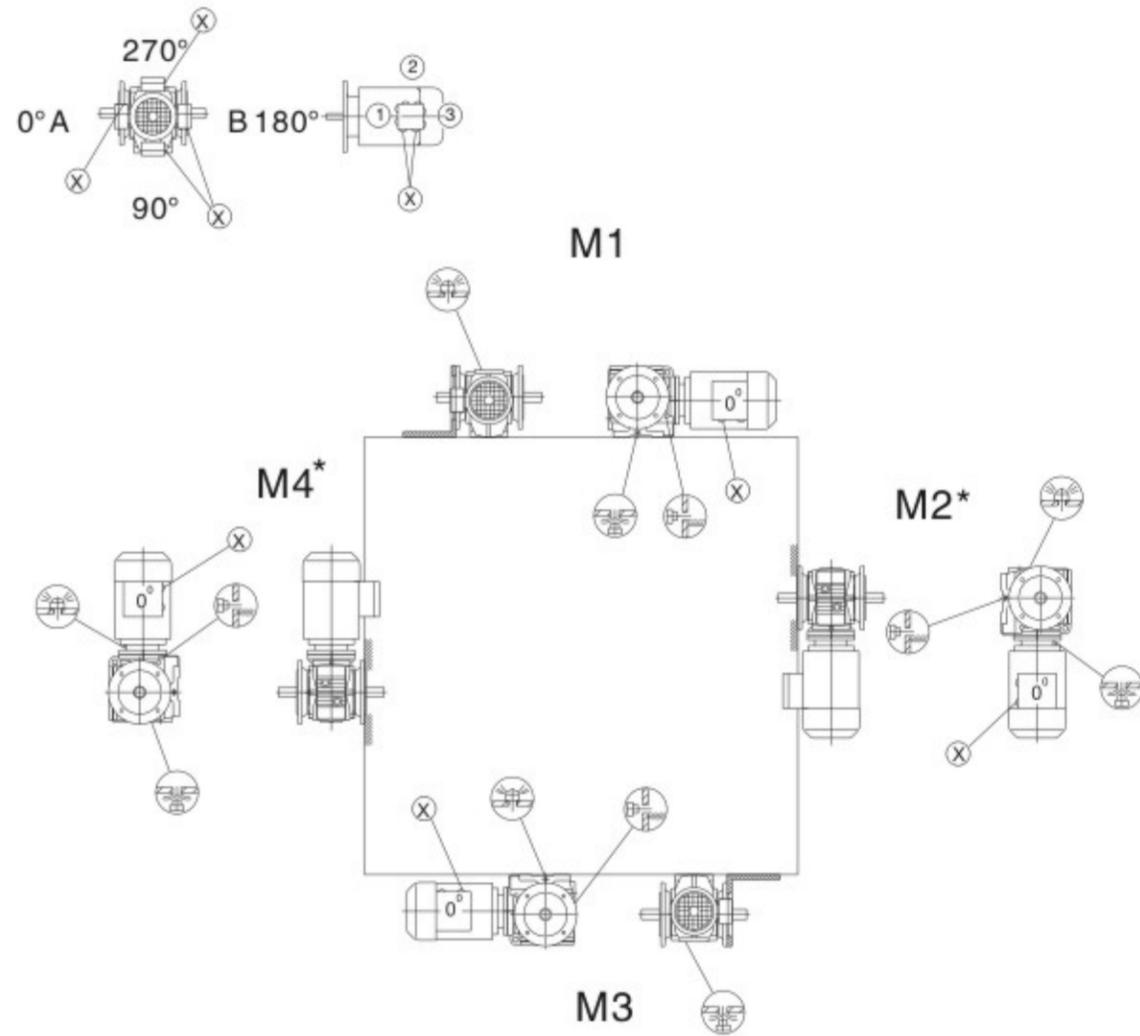


重要:請參見"減速器選型"中"徑向和軸向負載"部分(P19)
Important:Please refer to the information in the "Geared Motors" catalog.Optional Planning for Gear units Ouerhung and axial loads part"(P19)

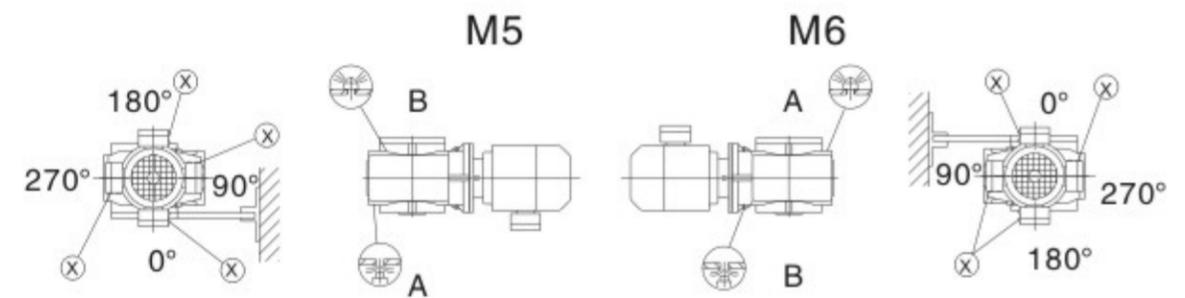
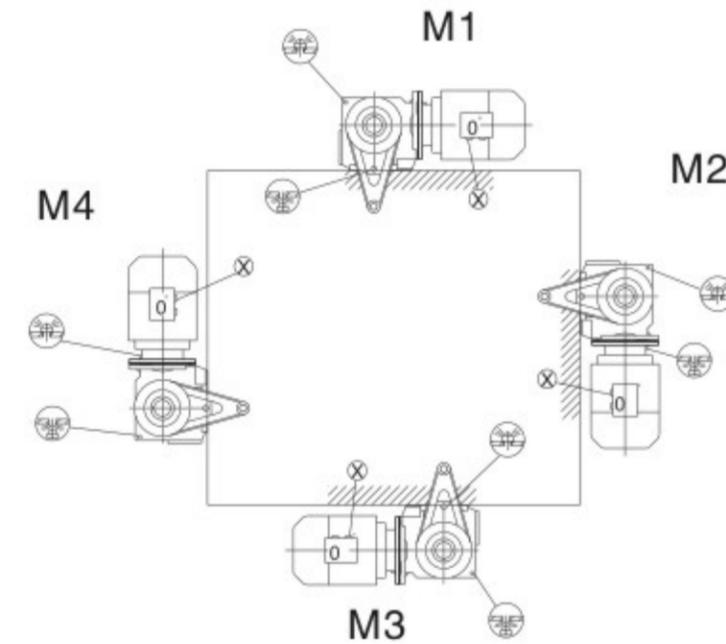
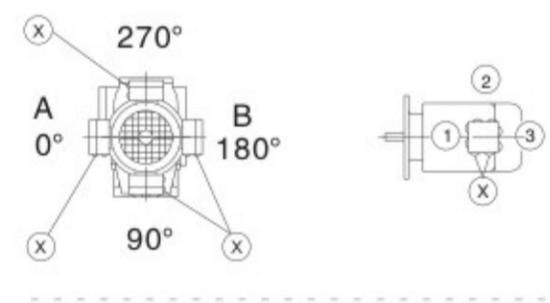
RCSF/SAF/SHF37



RCSF/SAF/SHF/SAZ/SHZ47..-97..



RCSA/SH37/T..



RCR..

RCF..

RCK..

RCS..

RCR..

RCF..

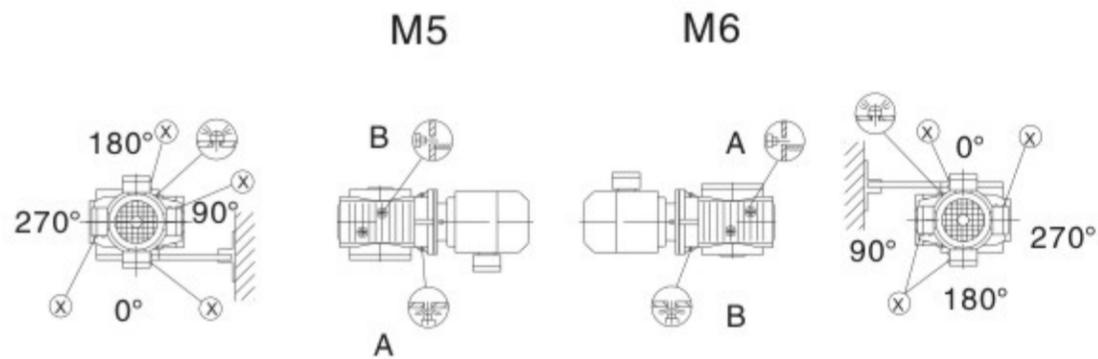
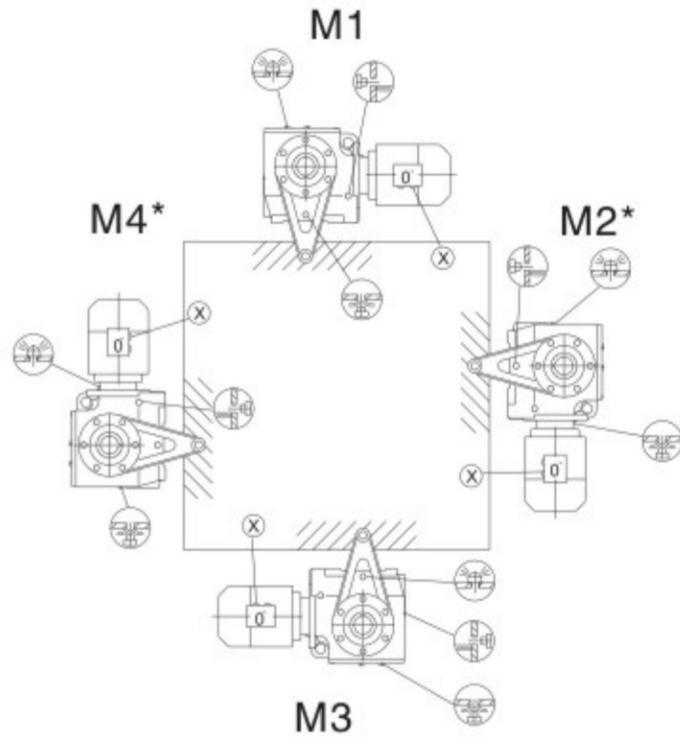
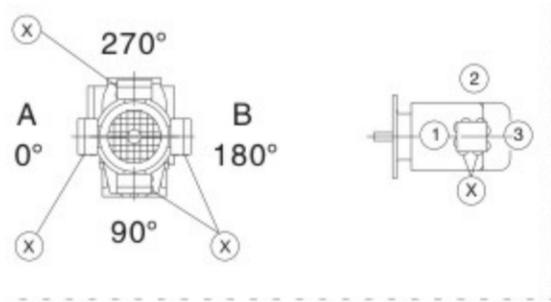
RCK..

RCS..

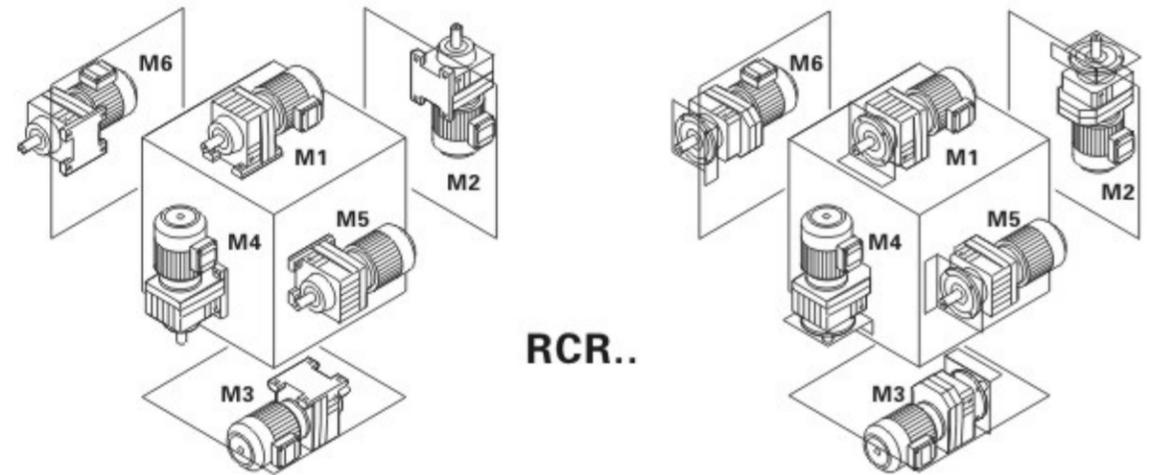
RC..系列齒輪減速電機

RC..系列齒輪減速電機

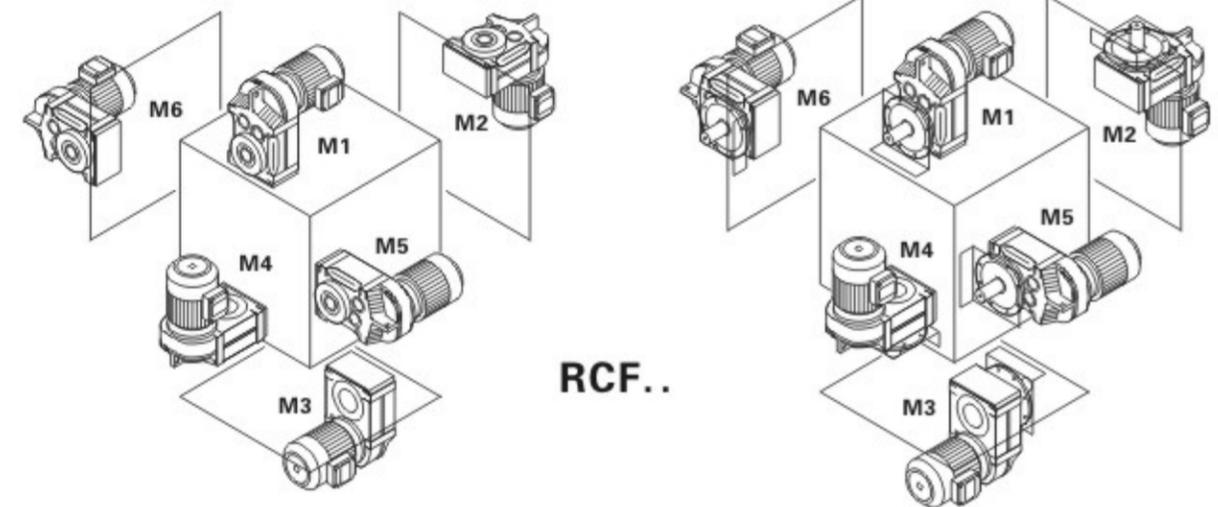
RCSA/SH47..-97..



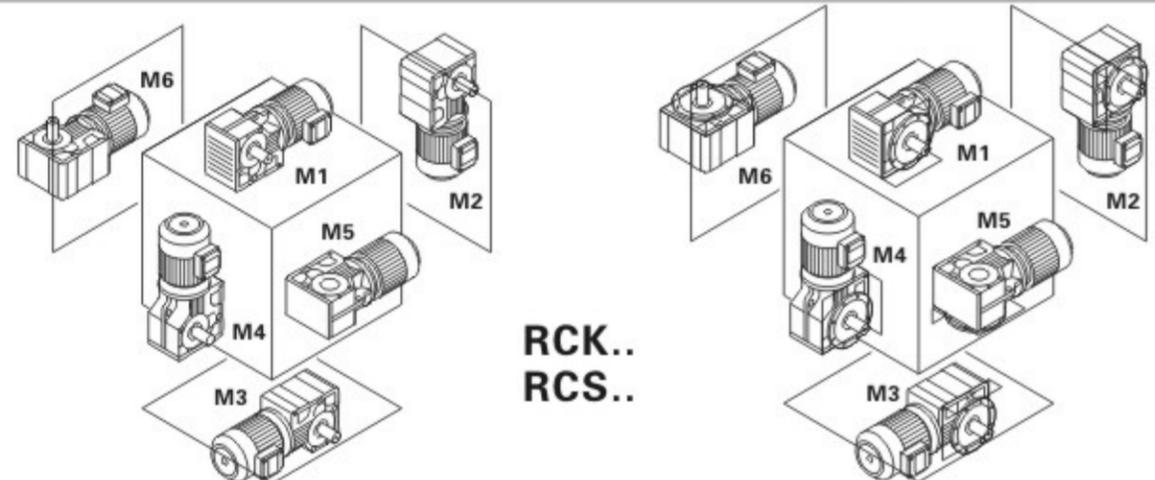
安裝位置示意圖
Schematic diagram of the installation location



RCR..



RCF..



RCK..
RCS..

RCF..
RCK..
RCS..
RC..系列齒輪減速電機

RCR..
RCF..
RCK..
RCS..
RC..系列齒輪減速電機

11. 尺寸信息 Dimension information

中心高公差
Shaft heights tolerances

h ≤250mm → -0.5mm
h >250 → -1mm

地脚安裝減速機：當配有電機時，電機可能已凸出到安裝平面以下，請注意檢查。
Foot-mounted gear units: The motor may project below the mounting surface when fitted, please check.

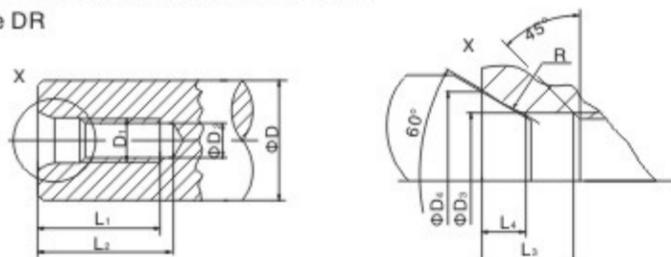
軸公差
Shaft tolerance

直徑公差 Diameter tolerance

Φ ≤50mm → ISO k6
Φ >50 → ISO m6

按照DIN332標準有DR型中心孔：

Center hole in accordance with DIN332.
shape DR



輸出軸直徑ΦD Diameter of Output shaft	D1	D2	D3	D4	R	L1 +2	L2 min	L3	L4 ≈
ΦD=7-10mm	M3	2.5	3.2	5.3	4.0	9.0	12.0	2.6	1.8
ΦD>10-13mm	M4	3.3	4.3	6.7	5.0	10.0	14.0	3.2	2.1
ΦD>13-16mm	M5	4.2	5.3	8.1	6.3	12.5	17.0	4.0	2.4
ΦD>16-21mm	M6	5.0	6.4	9.6	8.0	16.0	21.0	5.0	2.8
ΦD>21-24mm	M8	6.8	8.4	12.2	10.0	19.0	25.0	6.0	3.3
ΦD>24-30mm	M10	8.5	10.5	14.9	16.0	22.0	30.0	7.5	3.8
ΦD>30-38mm	M12	10.2	13.0	18.1	20.0	28.0	37.0	9.5	4.4
ΦD>38-50mm	M16	14.0	17.0	23.0	25.0	36.0	45.0	12.0	5.2
ΦD>50-85mm	M20	17.5	21.0	28.4	31.5	42.0	53.0	15.0	6.4
ΦD>85-130mm	M24	21.0	25.0	34.2	40.0	50.0	63.0	18.0	8.0
ΦD>130mm	M30	26.5	31.0	42.6	50.0	63.0	85.0	20.0	10.0

空心軸
Hollow shaft

鍵：根據DIN6885確定（圓頭平鍵）

Keys: In accordance with DIN6885(domed type)

直徑公差

Diameter tolerance

Φ → ISO H7塞規測量

ISO H7 measured with plug gauge

花鍵軸
Multiple-spine shafts

Dm = 測量棒直徑 Measuring roller diameter

Me = 檢測尺寸 Inspection size

法蘭
Flange

止口公差 Centering shoulder tolerance

Φ ≤230mm (flange size A 120-A300) → ISO j6

Φ >230mm (flange size A 350-A660) → ISO h6

對於每個規格的斜齒輪減速機、交流(制動)電機和防爆(制動)電機最多可提供三種不同尺寸的法蘭，每種法蘭的尺寸見相關尺寸表。

Up to three different flange dimensions are available for each size of helical gear units AC (brake) motor and explosion-proof AC (brake) motor. The possible flanges per size are indicated in the relevant dimension sheets.

起吊螺栓及吊耳

Lifting eyebolts, suspension eye lugs

RCR17和RCR27減速機，電機機座號小於100的減速電機沒有配備專門的運輸吊裝工具、其它的減速機和電機配有鑄造的吊裝孔，用螺栓固定在機體上的吊耳或吊環。

RCR17...RCR27 helical gear units, motors up to DV100 and Spiroplan geared motors are delivered without special reansport fixtures. Otherwise, the gear units and motors are equipped with cast-on suspension eye lugs, screw-on suspension eye lugs or sceew-on lifting eyebolts.

減速機/電機型號規格 Gear unit/motor type	吊環/吊耳 Screw-on lifting eyebolts /suspension eye lugs	鑄造吊裝孔 Cast-on suspension eye lugs
RCR/RF37-57, RCRX/RXF57-67	●	—
≥RCR67	●	—
RCF37-157	—	●
RCK37-157	—	●
RCK167-187	●	—
RCS37-47	●	—
RCS57-97	—	●
≥D112	●	—

通氣閥

Breather valves

減速機尺寸圖總是顯示為螺塞，相應地螺塞在出廠前按照其定貨要求的安裝位置更換為通氣閥。這意味着減速機的外形尺寸圖稍有不同。

The gear unit dimension drawings are always shown with screw plugs. The corresponding screw plug is replaced by a breather valve at the factory depending on with mounting position M1-M6 is ordered. This means the contour dimensions may be slightly different.

鎖緊盤連接

Shrink disk connection

對於鎖緊盤連接的空心軸減速機：若需要可向我公司索要關於鎖緊盤的詳細數據表。

Hollow shaft gear unit with shrink disk connection: If required, please request a detailed data sheet on shrink disks from company, data sheet no.33 753..95.

花鍵空心軸

Splined hollow shaft

RCFV..和RCKV..減速機從37到107可提供按DIN5480制作的花鍵空心軸。

Hollow shaft gear units RCFV.. in sizes 37-107 and RCKV.. In sizes 37-107 are supplied with a splined hollow shaft to ISO4762.

RCFA/RCFH/RCFV的橡膠緩衝墊

Rubber buffer for RCFA/RCFH/RCFV

f為在力矩Mamax作用下橡膠緩衝墊被壓縮的距離尺寸

f stands for the compressed dimension of Rubber buffer in the Manax torque.

制動電機

brake motors

配制動電機時，G1B的尺寸代替G1；KB代K

In brake motors, dimensions G1B apply instead of G1 and KB instead of K

電機附件

Motor accessory

電機的尺寸因不同的電機附件而不同，請參考電機選擇的尺寸圖。

The motor dimensions may different as a result of motor accessory. Please refer to the dimensions of the motor accessory.

特殊應用

Special versions

接線盒的尺寸，在特殊應用如KS或CSA時與標準形式的尺寸不同。

The dimensions of the terminal box on special versions such as KS or CSA may different from the standard dimensions.