Http://www.taiwan-gear.com.tw
成奕專用(for大陸)
Http://www.chentagear.com.tw
成大專用(for台灣)

成大 齒輪
CHENTA GEAR

METRIC 公制尺寸

F

平行軸斜齒減速機

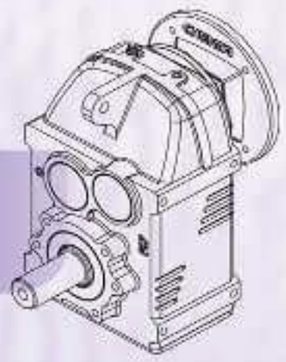
SERIES PARALLEL SHAFT HELICAL GEARMOTORS

UKAS QUALITY MANAGEMENT 005

ISO 9001:2000 SYSTEM CERTIFICATION SGS

外型安裝尺寸與德國領導品牌相容

INSTALLATION DIMENSION ARE CONSISTENT WITH GERMAN MODEL




DEW-1A

目錄 Content

[說明 Introduction]

[產品資訊及使用說明 Product Information and Tables]

[平行軸齒輪減速機F系列 Parallel Shaft Helical Gear unit F Series]

公 司 介 紹

1 .1960年本公司董事長陳茂正先生創設”成大機器廠”於高雄市自強二路，工廠取名”成大”乃本於其對母校成功大學機械系在機械專業知識教育養成之感恩及飲水思源之情。

2.成大機器廠成立後，專門從事汽車船舶引擎曲軸之研磨再生，汽缸搪缸及柴油引擎校正等機械加工工程，當時為南台灣之翹楚，由於技術精良服務親切，開業後旋即聞名遐邇，生意蓬勃。

3.1971年本於公司發展應有自主性產品，才能永續經營遂與日本減速機製造廠技術合作，開始生產製造自有品牌之成大齒輪減速機，發展至今，公司員工近90名，產品以自有之CHENTA品牌行銷全球。主要市場為台灣、亞洲、北美洲及中東，至今已執台灣業界之牛耳。並在海外設立美國分公司及中國上海分公司。

4.建廠以來，本公司即本著”結合一流人才，研發製造高品質的產品”為信念。
產品政策以”品質保證”” 交貨準確”” 價格競爭”” 生產合理”及”行銷國際”為追求目標。

5.累積40多年之機械製造經驗及誠信經營精神，本公司已自然形成一種優良的公司文化，此精神文化乃是公司最寶貴之資源，表諸文字即是”新”” 實”” 勤”” 效” ，乃創新、信實、勤快、 效益，之意也。

6.全體員工受此公司文化之薰陶，工作勤奮盡忠職守。在良好工作環境下，協力合作積極創新。使公司持續穩定發展，營造共同效益。

7.本公司將在現有資源文化基礎上，繼續秉持敬業精神，以客戶至上的服務態度，精益求精，生產高品質具競爭價位之齒輪減速機回饋國內外客戶，與客戶攜手成長，以臻永續經營之目標。

公司概要	公司名稱：成大精機工業股份有限公司 CHNTA PRECISION MACHINERY IND.INC. 成立：民國 60 年（1971 年） 職工人數：90 名 廠房面積：仁武廠 7000m^2 上海廠 6800m^2

COMPANY PROFILE

1.IN 1960, Mr. Mao Cheng Chen, president of the company, and two other colleagues in the department of Mechanical Engineering of the Tainan Engineering College（predecessor of Cheng Kung University）established a company called " Chen Ta Machinery Works" . It was named "Chen Ta" in remembrance of, and also giving acknowledgement to, their alma mater, Cheng Kung University（called Chen Ta in short）from where Mr. Chen and his colleagues had received their specialized mechanical education.

2.Chen Ta Machinery Works specialized in machining jobs such as grinding/re-building of the crankshafts of automobile and vessel engines, cylinder overhaul, and diesel engine adjustment. Back then, she was the best of her field in southern Taiwan. Due to the excellent technique and the cordial service, the company name was soon well known and the business became prosperous.

3.In 1971, to support a long-term operation, the company needed her own products, so the technique cooperation between CHENTA and Japan reducer manufacturer began. From then on, CHENTA started manufacturing her own brand, "CHENTA GEAR RDUCERS". Now the company has about 90 employees, and her products have been marketing to the world under the name of "CHENTA". The major markets are in Taiwan, Asia, and North America. In Taiwan, she remains at the top of the field and also established branch offices in America and in Shanghai (in China).

4.Since the beginning of the company, our conviction is to "Gather excellent human resource, and research and manufacture high quality products". Our product policy is targeting at "Guaranteed Quality", "On Time Delivery", "Competitive Prices", "Rational Production", and "International Marketing".

5.With more than 40 years of experience in mechanical manufacturing and honest operation, a fine culture has naturally grown inside the cooperation. This spirit is the most precious resource of our company. The motto of our company is based on "INNOVATION", "HONESTY", "DILIGENCE", and "EFFICIENCY".

6.Influenced gradually under such fine culture, all employees in CHENTA work hard and take responsibility. They cooperate with each other and innovate actively. With their efforts, CHENTA keep developing and growing up to fight for the mutual benefit.

7.To reach our long term operation goal, based on the company's existing cultural resources, we will: have high expertise in the field; serve our customers with respect; constantly improve ourselves; manufacture high quality and affordable speed reducers for customers throughout the world, all so that we can grow together with our customers.

COMPANY PROFILE	Company Name: CHNTA PRECISION MACHINERY IND.INC. Established: 1971 Employee: 90 persons Plant Sizes: Jen Wu Plant 7000m^2 Shanghai Plant: 6800m^2

平行軸斜齒輪速機產品特點說明

1> 設計理念：標準化設計與模組化設計相結合，達到與國際領導品牌具有互換性，且兼具結構緊湊，
體積小等特點。
2> 高效率：高效斜齒輪組傳動，效率可以達到 90% 以上
3> 大速比：速比可以從 4:1 ～ 254:1 之間任意選擇。
4> 負載範圍：負載可根據不同需求從 1/4HP ～ 60HP 任意選擇，可滿足不同之需求。
5> 大承載能力：所有斜齒輪採用鉻鉬合金鋼經滲碳及研磨處理，具有更高的承載能力。
6> 結構緊湊性：平行軸的設計提高空間使用效率，適合空間受限情況使用。
7> 安裝靈活性：每種規格可以從 M1 到 M6 任意方向位置上安裝，安裝更靈活，更方便。
8> 結構外形美觀，堅固。

Parallel Shaft Helical Gear Reducers

Advantages 1>Design Concepts: The combination of standardization and modularization allowed interchangeability with international leading brands, while keeping structure rigidity and compactness.

2>Noise Level: Leveraging the advantage of high efficiency of helical gears, the reducers performs with higher stability and lower noise level.

3>Ratios Selections: The ratio ranges between 4:1 ~ 254:1, providing wide range of ratio accommodation.

4>Loading Capacity: Available with power ranges from 1/4HP up to 60HP, depending on different requirements and applications.

5>Tensile Strength: Pinion, gears and worm shafts are made with 20CrMo alloy steel plus carburized heat treatment.

6>Space Efficiency: The parallel shaft orientation is designed to minimize space needed for installation.

7>Installation Flexibility: All models are designed for various mounting position (M1~M6) specified by customers.

8>Appearance Aesthetics: The reducers are designed with modern exterior while maintaining high rigidity.

操作需知

. 此操作需知是為了幫助您正確安裝及使用本減速機，為了防止問題產生，適當的安裝與操作是很重要的，而這個需知也包含了重要的保養建議。

. 在出貨前每一台成大減速機都經過檢驗及測試後才妥善包裝，不過當您收到貨品時請立刻檢查是否有短少或運輸損壞情形，若有，請記錄損壞或短少情形以便日後與運輸廠商求償，同時也請您通知成大公司貨品受損情形。

OPERATION MANUAL

. This operation manual is truing to help you install and use speed reducer correctly. To prevent problem occurred, proper installation and operation is very crucial. Certainly, this operation manual will also suggest you how to maintain in order to extend the life of speed reducer.

. Every CHENTA speed reducer is passed strict inspection and testing and well packaged before shipping. However when you receive speed reducer, please check immediately if there is any shortage or damage of parts via transportation. This will be much helpful as evidence when you offer claim to the transportation carrier, meanwhile please also notice us for improving our transportation service with a qualified and responsible carrier. Also, we are eager to help to fix the problem for you and to reduce your inconvenience to minimum.

一、潤滑

1.除非客人有特殊指定，否則成大公司會在每一台減速機出廠前根據安裝方式填加適當及適量之潤滑油，若客人欲自行填加潤滑油也請根據潤滑油建議表適當填加。

I. Lubrication

1. Unless it's a special request from customer, every CHENTA speed reducer will be supplied with proper quantity lubricant according to different installation position before shipping. If customer prefers to fill in the lubricant oil by himself, please follow the instruction of operation manual in latter pages in this catalog.

二、長期儲存

1.如果減速機沒有立即安裝使用，請將它保存在乾燥安全處所，而減速機經過長時間儲放後再使用，請您再聯絡成大公司，我們技術人員會告訴您使用前應該注意事項。

II.Storage

1. If you won' t install the speed reducer soon, please keep it out from humid place. And, please contact our service people if you want to install speed reducer for operation after storage. Our service people will inform you what should be noticed and checked in advance before operation.

三、安裝附件於減速機軸心上

1. 注意！不可重擊軸心！重擊軸心可能造成軸承傷害導致軸承壽命縮短，我們建議用加熱方式安裝，附件只要加熱到80°C就可滑入軸心，如此可以減少軸承損傷的可能性。軸心尺寸公差請參照產品型錄。
2. 安裝軸心聯軸器時應該正確的對心及校正以避免震動及聯軸器異常磨耗等情形發生，並且讓軸心上的軸承免於提早損壞。
3. 為避免出力軸上之軸承承受極度的負載，請參照型錄上的可承受懸吊荷重表，請不可超出限制，如果必須超出建議荷重或是合併有額外軸向及徑向負載，請聯絡我們的工程師，因此時正確的使用應該同時考慮速度、旋轉方向、安裝位置、較大外來的軸向和徑向荷重等合併之因素。

III.Attachments the parts on reducer’ s shaft

1. Notice : Don’ t hit on shafts heavily. It will cause bearings damaged and shorten life of bearings. We prefer to suggest use heating method, to heat the parts up to 80°C, it could easily slip in on the shafts and reduce the possibility of bearings damaged. As to the tolerance of shaft’ s diameter, please refer to the specification in catalog.
2 .While install the coupling, make sure to check the alignment of coupling and shaft of speed reducer properly to eliminate the damage on bearings and reduce to vibration frequency and abnormal wear.
3. To avoid over load on the bearings of output shaft, please refer to the OHL(over hung loading) in catalog and don’ t exceed. If exceed or extra axial loading, please contact our service engineer for consultation.
4. The actual application of following factors such as input and output speed, direction of rotation, installation site and over axial and radial loading should be careful to watch.

四、安裝與操作

1.減速機安裝應考慮以下幾項因素:

* 環境溫度應低於40°C。
* 通暢的通風環境。
* 適當位置的油位旋塞、透氣注油旋塞與洩油旋塞。
* 保留適當的空間以便做設備上的檢修或更換。

2.減速機應該安置在平坦防震且堅固的構造上，準確的對心是非常重要的，安裝在不平坦的平面上會造成減速機機殼的拉扯甚至破損。

3.基座平坦度公差請勿超出以下建議:

* 77型或更小----0.1mm
* 87型或更大----0.2mm

4.運輸過程中為防止減速機內潤滑油從透氣旋塞滲漏出來，出廠前我們會將透氣孔以紅色插梢堵住，請記得當您安裝好減速機運轉之前，一定要把透氣旋塞上的紅色插拔掉。

5.安裝前請再次檢視其輸入馬力、減速比與銘牌相符，並檢查減速機輸出軸之旋轉方向與需求一致。

IV. Installation & Operation

1. The under lying factors should be taken into consideration:

*Ambient temperature below 40°C

*Location with food air ventilation

*Proper locations for oil plug and drain plug

*Sufficient space for periodical inspection or maintenance of replacement

2.To install necessarily on a flat, stable and solid base for accurate alignment to prevent form the breakage of reducer' s housing.

3.The suggested tolerance of flatness on base :

For size 77 or smaller, < 0.1mm/m

For size 87 or bigger, <0.2mm/m

4. To avoid the lubricant splash out during the transportation, breather plug with red pin inserted into air breathing hold. Please remove the red pin before start-up.

5. Before installation, double check the input horsepower and ratio is the same as the punched name plate of reducer.

五、保養

警告！在電源移除之前不可拆卸或更換設備。

1.潤滑油油位與品質應為平時保養重點，且根據使用頻率與環境狀況，潤滑油也必須依據建議表做換新動作。

2.檢查聯軸器的同心度，鍊條或皮帶的鬆緊度，基座固定螺絲之緊度等是否均適當，並保持設備的清潔。

V. Maintenance

Be aware ! The power should be off before removal or replacement of reducer.

1. Oil level and quality lubricant is key point of daily maintenance. Please refer to our suggestion to change the lubricant periodically according to operation frequency site situation.

2. Check the alignment of coupling, the tightness of chain, and nuts and keep clean of reducer.

斜齒傘齒輪減速機可能發生之異常狀況及改善方法

以下所列為一般性故障，如有特殊異常情形發生時，請與本公司聯絡，我們將提供正確之服務。

異常情況	原因	改善方法
一、機體發熱	1. 超過標準負荷運轉 2. 潤滑油加入過多或過少 3. 加入潤滑油不適當或不良 4. 油封唇部潤滑不足	1. 調整至正常負荷 2. 潤滑油應加至油位指示處 3. 更換適當之齒輪潤滑油 4. 塗抹少許油脂於油封唇處
二、運轉有聲音	1. 有規律噪音 { 齒面接觸不良 / 軸承損壞 2. 尖銳的金屬聲音 { 軸承間隙太小 / 潤滑油不足 3. 不規律噪音 { 異物掉入 / 軸承受損	1. { 修整齒接觸面 / 更換軸承 2. { 更換軸承 / 補足潤滑油 3. { 除去異物，更換新潤滑油 / 更換軸承
三、運轉時振動	1. 齒輪磨損 2. 異物掉入 3. 軸承磨耗或受損 4. 螺絲鬆動	1. 更換齒輪 2. 除去異物，更換新潤滑油 3. 更換軸承 4. 鎖緊螺絲
四、漏油	1. 油封損傷 2. 墊片破損 3. 排油栓未鎖牢 4. 蓋類或法蘭螺絲鬆脫	1. 更換油封 2. 更換墊片 3. 鎖緊排油栓塞 4. 鎖緊螺絲
五、入力軸及出力軸無法轉動	1. 齒輪嚙合面因高熱而黏合 2. 軸承已損壞 3. 有固形物（硬物）嚙入齒輪接合面	1. 依程度而判斷可調整或更換齒輪 2. 更換軸承 3. 除去硬物，清洗內部後更新潤滑油
六、入力軸空轉而無法帶動出力軸轉動	1. 齒輪已磨耗 2. 齒輪與出力軸之配合鍵破損 3. 入力軸折斷 4. 出力軸折斷	1. 更換齒輪 2. 更換鍵 3. 更換入力軸 4. 更換出力軸
七、齒輪磨耗較大	1. 超正常負荷 2. 潤滑油不良或不適當 3. 潤滑油不足 4. 運轉環境溫度過高	1. 調整適當負荷 2. 更換適當之潤滑油 3. 補充潤滑油 4. 改善通風環境

Cause & Trouble shooting for the general problem and Improvement

The following lists are general problem situations. In case other problem happen, please contact directly with us to get more information.

CAUSE	REASON	IMPROVEMENT
一、Overheat	1. overload 2. lubricant oil overfill or shortage 3. improper lubricant oil 4. over friction on oil seal(lack of lubricant)	1. adjust to proper loading 2. Add lubricant to the level of oil gauge 3. Chang proper lubricant oil 4. Lip lubricant at oil seal
二、Noise	1. consistent noise contact； improper gears / bearing damaged 2. screaming noise bearing gap too small； / Lubricant oil shortage 3. consistent noise some object insert； / bearing damaged	1. repair gears； / replace bearing 2. replace bearing； / fill in lubricant oil 3. remove debris & replace lubricant oil； / replace bearing
三、Vibration	1. gear over-fricative 2. Debris inside 3. bearing worn-out or damaged 4. blot loose	1. replace gear 2. remove debris & replace lubricant oil 3. replace bearing 4. tighten bolt
四、Oil Leakage	1. oil seal damaged 2. gasket damaged 3. drain plug loose 4. covers or flange loose	1. replace oil seal 2. replace gasket 3. tighten drain plug 4. tighten the bolts
五、Input and Output Shaft Fail	1. overheat cause gear-bound 2. bearing damaged 3. some debris between gears	1. adjust or replace gears 2. replace bearing 3. remove debris；clean inside then replace lubricant oil
六、Input shaft fail to drive output shaft	1. gear worn-out 2. the key connecting gear and output shaft damaged 3. input shaft broken 4.output shaft broken	1. replace gears 2. replace key 3. replace input shaft 4. replace output shaft
七、Gear Worn-out	1. overload 2. improper lubricant oil 3. lubricant oil shortage 4. ambient temperature too high	1. adjust to proper loading 2. change proper lubricant oil 3. refill lubricant oil 4. ventilation improvement

使 用 說 明 書

感謝您選用本公司的產品。在使用之前，請詳細參閱以下說明，以確保正確使用。

一、安裝

1. 減速機入力軸直接與馬達聯結時，應採彈性聯軸器；出力軸直接與設備聯結時，宜採用齒輪聯軸器。
2. 減速機應安裝在穩固的基礎座，且須注意空氣流通及換油時，注油及洩油之方便性。
2. 減速機安裝後，用手轉動需靈活，不可有卡死現象。
4. 減速機安裝好，使用前應先進行空負荷運轉，確定機器各部份都無異狀後，方可正式使用，如有故障應先排除。

二、潤滑

1. 新減速機使用時，於運轉 500 小時候，需更換新油，其後每使用 2500 小時需換油；但在使用過程中仍應定期檢查油的質、量，若油有雜質、老化、變質情況，必須隨時更換。
2. 減速機應使用固定品牌、規格之齒輪油，不應將不同品牌、規格或不同類型的油箱混合使用。
3. 在換油過程中，應先將減速機內部清除乾淨，再注入新油。
4. 在使用期間，當發現油温過高（超過 80℃ 以上）時，以及有不正常的噪音等現象，應立即停止使用、檢查原因，等排除故障或更換潤滑油後，才可繼續使用。
5. 推薦用油：中國石油 HD-320 之極壓機油，或中國石油 # 90 多效齒輪油。

三、維護

1. 減速機應定期檢修，發現異狀或有顯著磨損，必須立即採取有效措施制止，備用零件之材質精度、亦須照標準製造。更新零件後，應先進行空負荷運轉，確定正常後再正式使用。
2. 使用單位應建立合理的維護制度，對減速機的使用狀況及檢修中發現的問題，做仔細記錄。

Operation Instruction

I . INSTALLATION

1. Input shaft connects to motor directly, a flexible coupling prefer to apply according ; output shaft connects to machine, it is better to use a gear coupling.
2. Install on a stable foundation and good air ventilation and the convenience of oil filling /draining should be considered.
3. The input shaft of the reducer and the motor shaft should be in alignment and the tolerance should fit the allowance.
4. After installation, please check input shaft by hand first to check whether running smoothly of nut.
5. Before start-up, no-load running test should be proceeded and any abnormal status occurred should be corrected immediately.

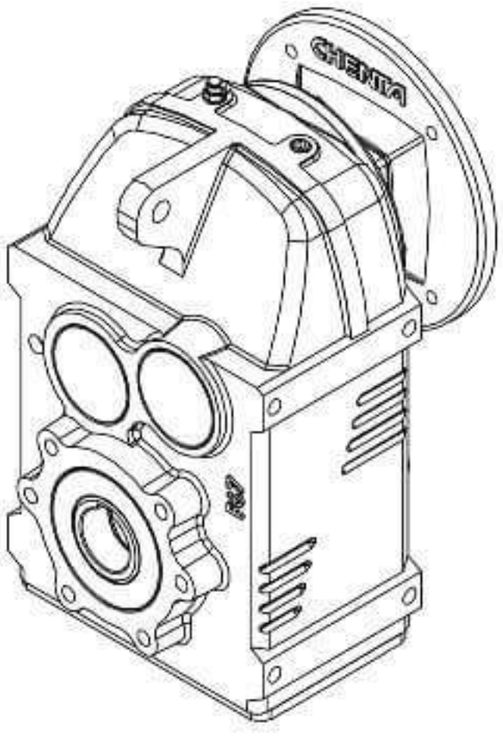
II . LUBRICATION

1. A new reducer needs replace oil in the beginning of 500 hrs operation ; and then, each 2,500 hrs change again. Mover, a regular oil checking is required and change necessarily.
2. Please change by equivalent specification of oil and don't mix with other brand of specification of oil.
3. Before changing oil, the inside of reducer should be flushed and drain out, then fill in new oil.
4. During operation, if the heat is over 80°C or any abnormal noise occurred , please shut down the reducer for checking immediately and start running only after the cause is resolved.
5. Lubricant recommendation: MOBILE gear 632,SHELL omala 320 or MOBIL mobilube HD80W-90,SHELL spirax E.P 90.

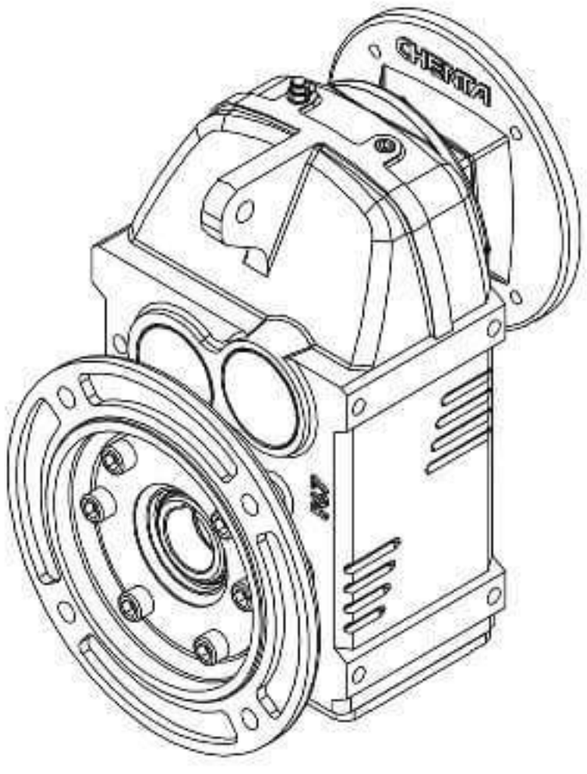
III . MAINTENANCE

1. A regular maintenance is required and if found any worn out, corrective action should be taken. The accuracy of spare parts replaced should be exactly the same as the original standard and no-load running test in advance is required.
2. Build maintenance system and data collection of failure carefully for all problems been met.

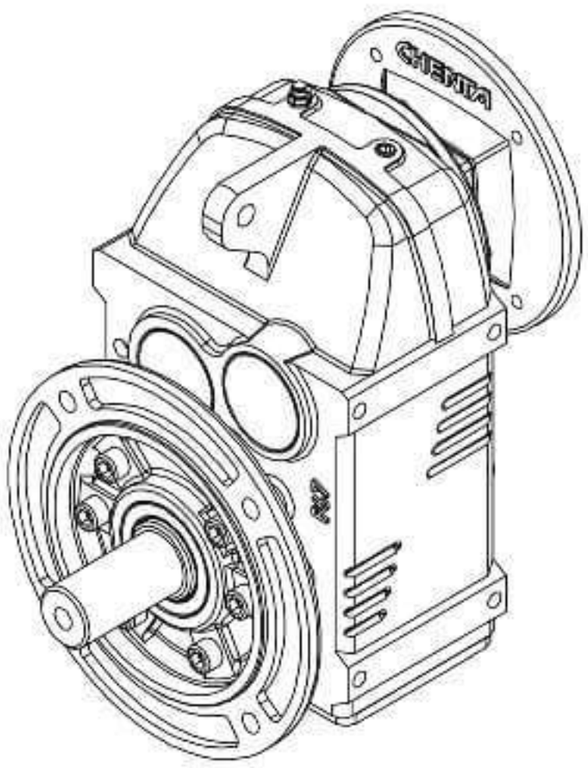
FHF...



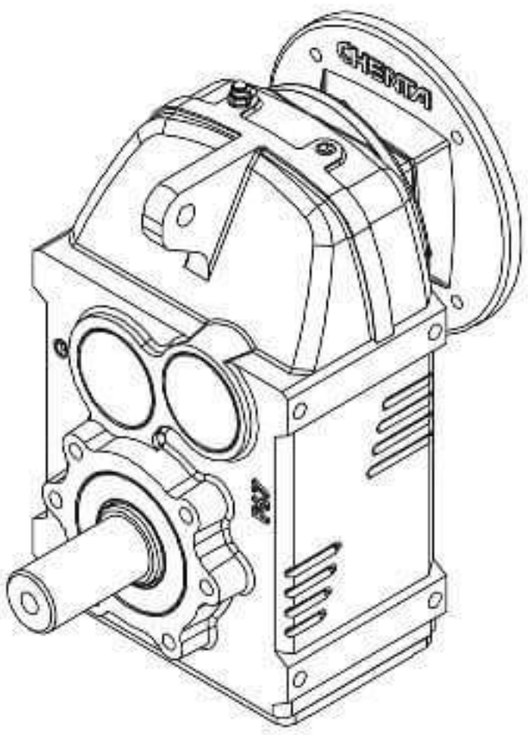
FMF...

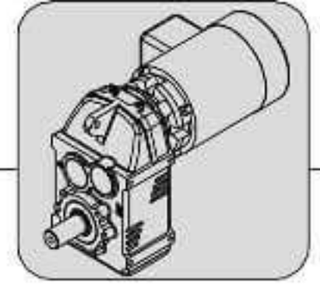


FNF...

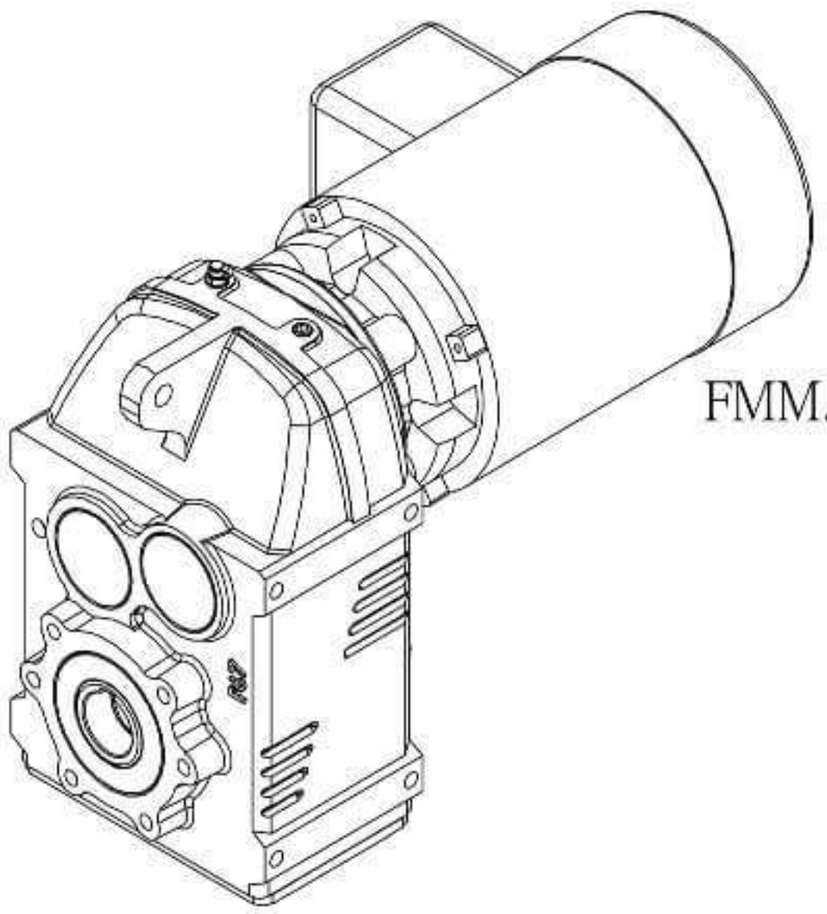


FSF...

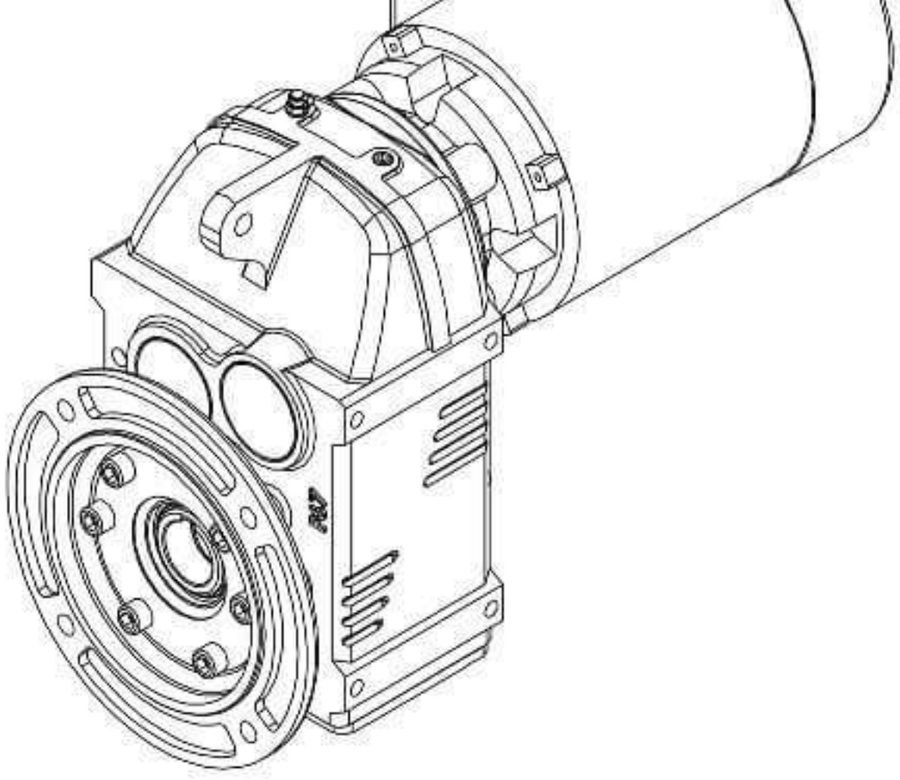




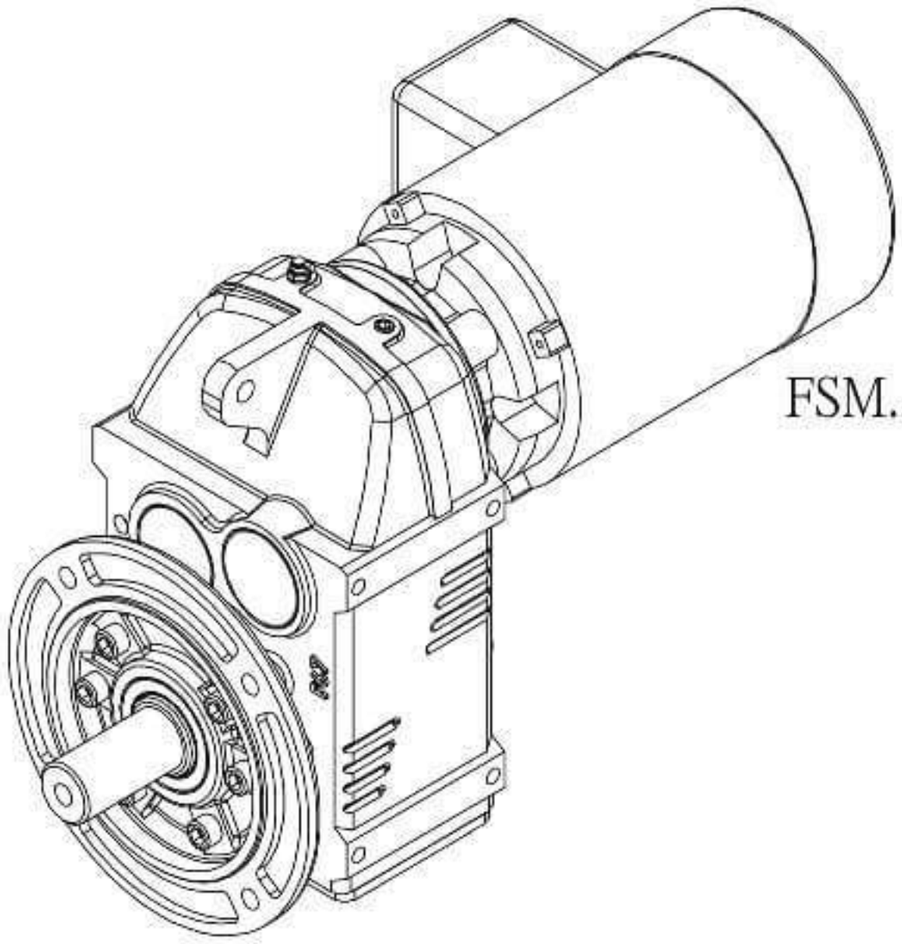
FHM...



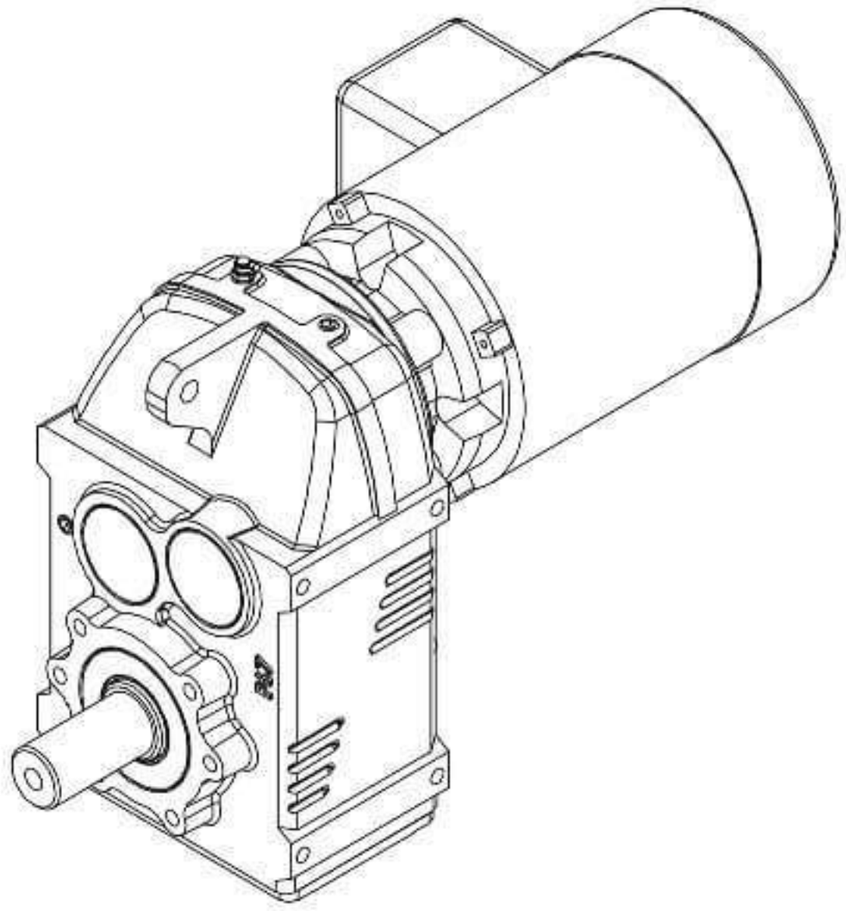
FMM...



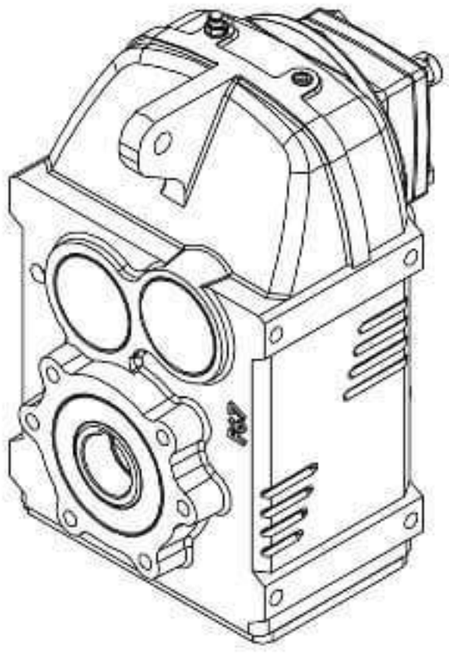
FNM...



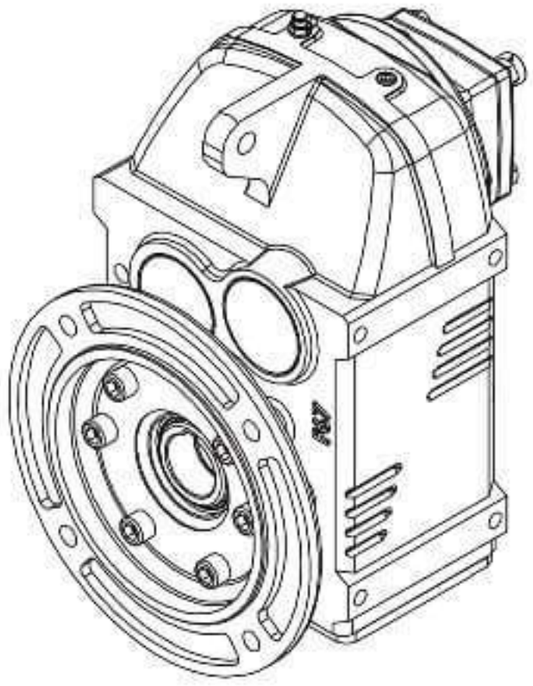
FSM...



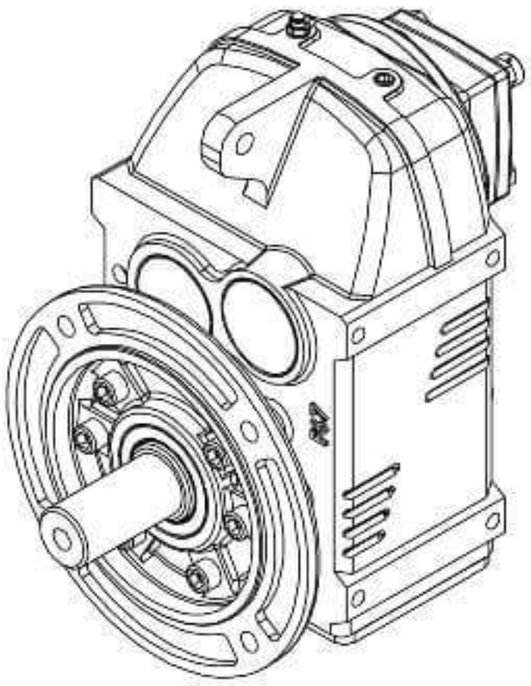
FHS...



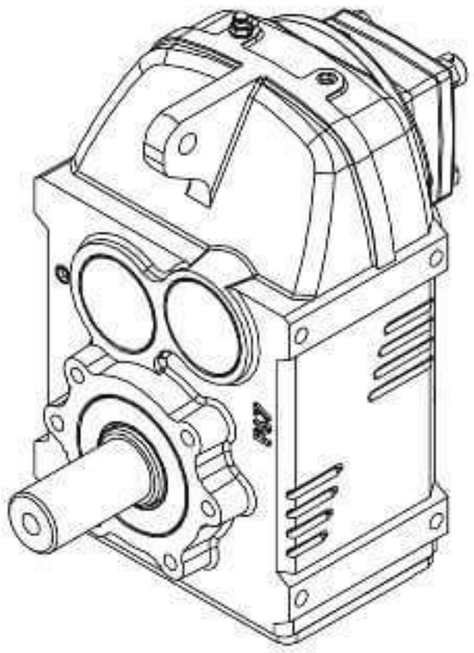
FMS...



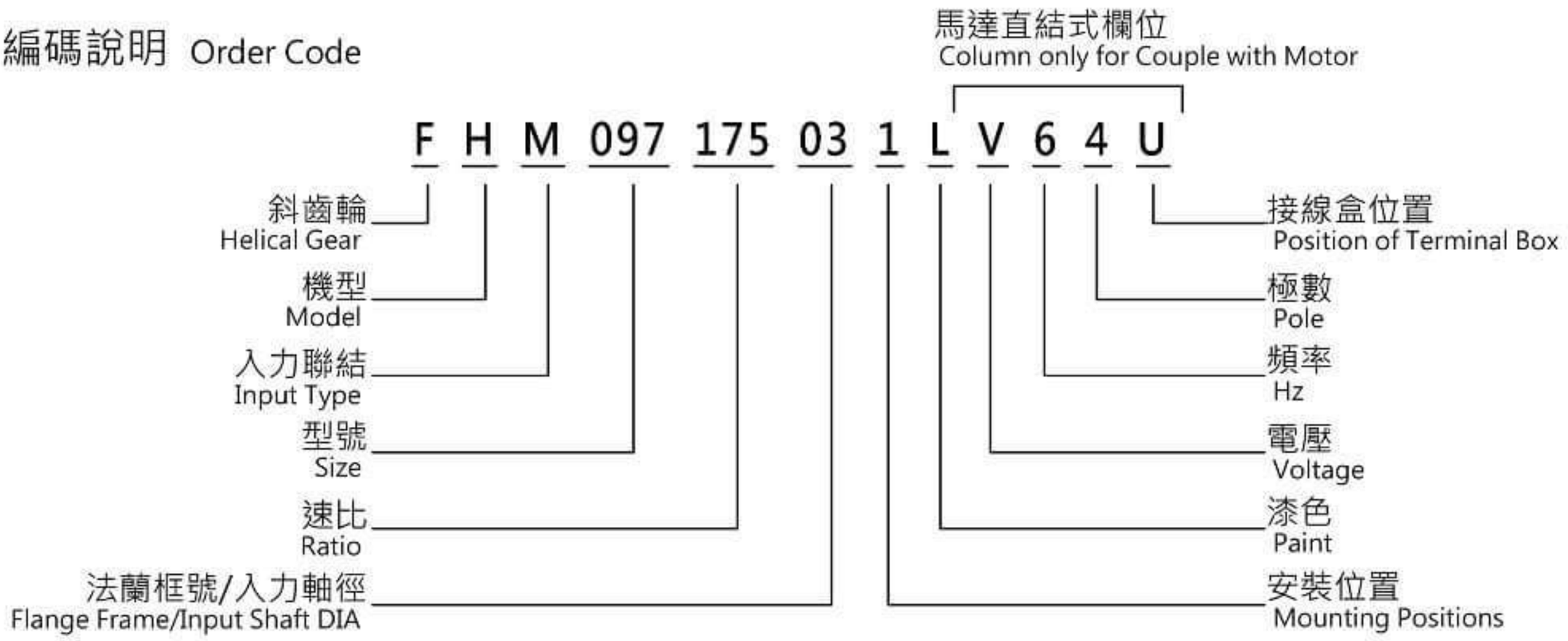
FNS...



FSS...



編碼說明 Order Code



機型 Model

S 出力實心
Solid Output Shaft

H 出力中空
Hollow Output Shaft

N 出力實心法蘭
Solid Output Shaft With Mounting Flange

M 出力中空法蘭
Hollow Output Shaft With Mounting Flange

入力聯結 Input Type

F 法蘭入力 IEC B5
Input Flange IEC B5

B 法蘭入力 IEC B14
Input Flange IEC B14

N 法蘭入力 NEMA
Input Flange NEMA

S 實心入力
Solid Input Shaft

M 馬達直結
Couple With Motor

型號 Size

037 : 37
047 : 47
057 : 57
067 : 67
077 : 77
087: 87
097: 97

速比 Ratio

004 : 1/4
〜
187: 1/187

法蘭框號/入力軸徑 Flange Frame/ Input Shaft DIA

公制框號 IEC Standard 4-Pole		英制框號 NEMA Standard	入力軸徑 Input Shaft DIA
QQ : 1/4HP	25 : 25HP	01 : 56C	16 : φ16
HH : 1/2HP	30 : 30HP	02 : 143T	19 : φ24
01 : 1HP	40 : 40HP	04 : 182/184T	24 : φ24
02 : 2HP	50 : 50HP	06 : 213/215T	28 : φ28
03 : 3HP	60 : 60HP	08 : 254/256T	38 : φ38
05 : 5HP		10 : 284/286T	42 : φ42
07 : 7.5HP		12 : 324/326T	48 : φ48
10 : 10HP		14 : 364/365T	55 : φ55
15 : 15HP		16 : 404/405T	70 : φ70
20 : 20HP			

安裝位置 Mounting Positions

M1、M2、M3、M4、M5、M6

漆色 Paint

L : 灰漆 Gray

電壓 Voltage

2 : 220/380	C : 220/400	H : 200/346
4 : 240/415	D : 230/400	K : 208/220
5 : 220/440	E : 230/440	M : 208/240
A : 220/230	F : 240/480	N : 380/660
B : 220/240	G : 120/208	V : 208~480

頻率 Hz

5 : 50Hz
6 : 60Hz

極數 Pole

2 : 2P
4 : 4P
6 : 6P
8 : 8P

接線盒位置 Position of Terminal Box

U、D、L、R

許可配接表 Permitted Combinations

F57 , ne=1400 1/min										600 Nm 實心入力軸徑
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	100L	112M	Input shaft mm
			3							
8	600	9200	175							Ø19
10	600	9200	139							
11	600	9200	122							
12	600	9200	115							
15	600	9200	95							
16	600	9200	85.5							
19	600	9200	73.4							

減速機-減速比
Gear unit reduction ratio

最大輸出扭距時，許可的徑向負載 (OHL)
Permitted overhung load at maximum output torque

最大輸出扭矩
Maximum output torque

輸出轉速
Output speed

標準配接
Standard

法蘭 / 實心入力- 標準配接
Input Flange / Solid Input Shaft - Standard

馬達直結- 接受客製，請洽公司客服
Couple with motor - Customization accepted
Please contact our customer service

選型表 Selection Tables

F..F/..M

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs	m [kg]

[1] [2] [3] [4] [5] [6] [7] [8] [9]

[1] 馬達額定功率
Rated power driving motor

[2] 輸出轉速
Output speed

[3] 輸出扭矩
Output torque

[4] 減速機-減速比
Gear unit reduction ratio

[5] 出力端許可的徑向負載 (OHL)
Permissible overhung load output side

[6] 操作係數
Service factor

[7] 減速機規格
Gear unit size

[8] 馬達型號
Motor type

[9] 重量
Weight

選型表 Selection Tables

F..S

i	na [1/min]	Mamax [Nm]	Pe [kW]	FRa [N]	FRe [N]	m [kg]
K37						200Nm

[1] [2] [3] [4] [5] [6] [7] [8] [9]

[1] 減速機-減速比
Gear unit reduction ratio

[2] 輸出轉速
Output speed

[3] 最大許可輸出扭矩
Maximum permitted output torque

[4] 減速機許可入力功率
Calculated drive power of the gear unit

[5] 最大輸出扭矩時，許可的徑向負載 (OHL)
Permitted overhung load at maximum output torque

[6] 入力端許可的徑向負載 (OHL)
Permitted overhung load on the input side

[7] 減速機規格
Gear unit size

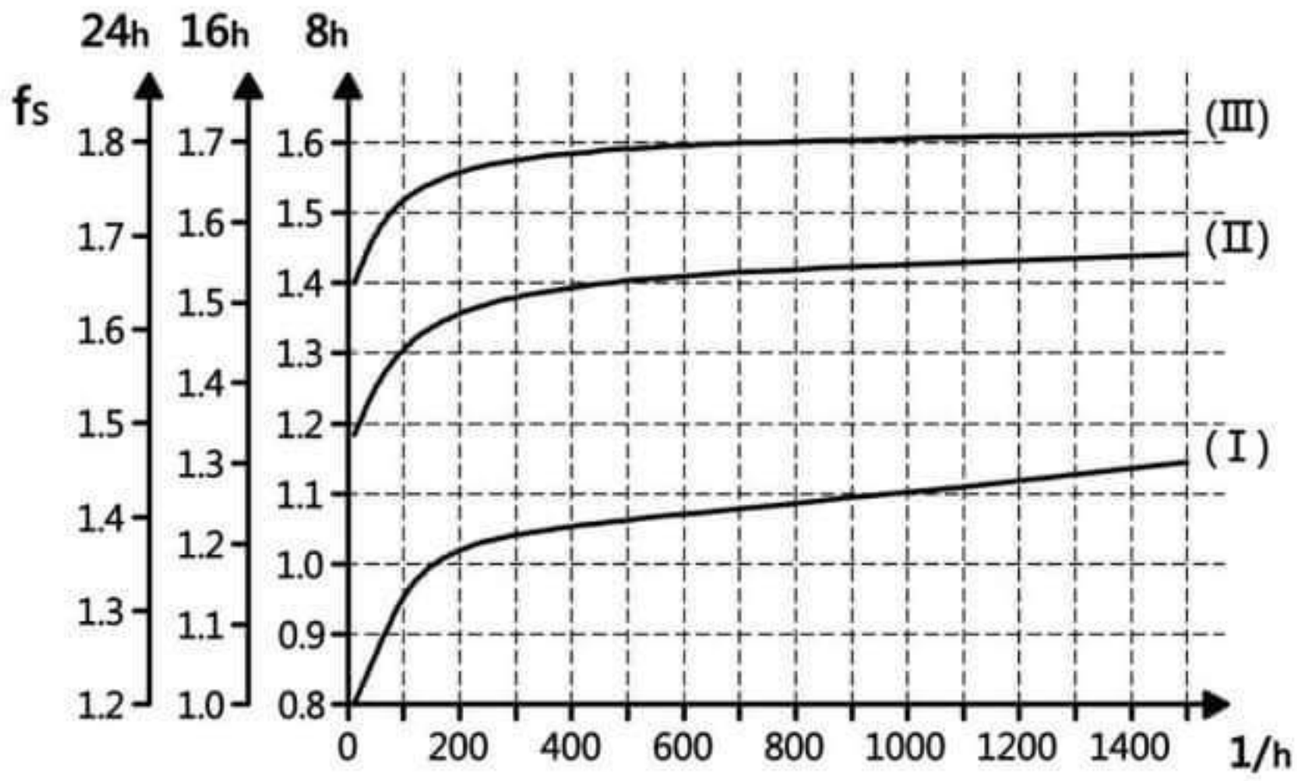
[8] 入力端軸徑
Input shaft diameter

[9] 重量
Weight

操作系數選用　Determining the service factor

為確保減速機在不同環境與使用條件下可正常運作，可由[操作系數表]選用合適型號來使用，
決定操作系數前必須先確定減速機一天運轉時數、每小時起停次數和負載類型。
The service factor is determined along with the daily operating time (hours/day), operating condition (continuous or intermittent) and level of load; for a proper gear selection, please determine the service factor accordingly.

$$Ma \times fs \leqq Mamax$$



操作系數表

Service Factor

負載類型
Load Classification

Ⅰ 平均負載：慣性加速系數 ≦0.2
Light shocks：mass acceleration factor

Ⅱ 中級衝擊負載：慣性加速系數 ≦3
Moderate shocks：mass acceleration factor

Ⅲ 重級衝擊負載：慣性加速系數 ≦10
Heavy shocks：mass acceleration factor

$$\text{慣性加速系數 Mass acceleration factor} = \frac{\text{所有外部的慣性矩 all exterior moments of inertia}}{\text{馬達的慣性矩 moments of inertia drive motors}}$$

[所有外部的慣性矩] - 減速機與驅動設備所產生的慣性矩，需要轉換成等效馬轉速下之慣性矩，公式如下：

[All exterior moments of inertia] - recalculated to motor speed, formula

$$J_X = J \times \left(\frac{n}{n_M}\right)^2$$

J_X ：馬達軸心等效慣性矩
mass moment of inertia scaled down to the motor shaft

J ：減速機輸出轉速下的慣性矩
mass moment of inertia with reference to the output speed of the gear unit

n ：減速機輸出轉速
output speed of the gear unit

n_M ：馬達轉速
motor speed

操作系數計算
Calculation of service factor

$$fs = \frac{Mamax}{Ma}$$

Mamax：減速機最大輸出扭矩
the maximum permitted continuous torque

Ma：減速機輸出扭矩
output torque of the gear unit

例 慣性加速系數 2.5(負載類型Ⅱ)，一天運轉 14 小時(選 16h/天)，每小時起停次數為 300 次。 ... 查表可得 fs=1.51。
根據選型表所選擇減速機的 fs 則需 ≧ 1.51。

EX If the mass acceleration factor is 2.5 (Moderate shocks Ⅱ), the operating time is 14 hours per day in an intermittent condition by 300 times per hour. We can acquire fs=1.51 from the fs chart; according to selection tables, we will know to select the gear unit with fs ≧ 1.51.

公差　Tolerances

軸高　Shaft heights

下列公差適用於外型圖標註之尺寸：

The following tolerances apply to the indicated dimensions:

h　≦250 mm　→ -0.5 mm

h　＞250 mm　→ -1 mm

底座安裝減速機 ：需檢查所使用的馬達，因為它有可能會超出安裝面的下方。

Foot-mounted gear units: Check the mounted motor because it may project below the mounting surface.

軸端　Shaft ends

直徑公差：

Diameter tolerance:

Ø　≦50 mm　→ k6

Ø　＞50 mm　→ m6

中心孔：

Center bores

Ø	＞24...30 mm	→ M10	Ø	＞50...85 mm	→ M20
Ø	＞30...38 mm	→ M12	Ø	＞85...130 mm	→ M24
Ø	＞38...50 mm	→ M16			

中空軸　Hollow shafts

直徑公差：

Diameter tolerance:

Ø　H7

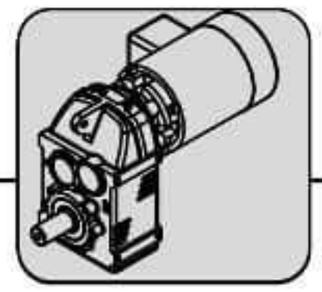
出力法蘭　Output Flanges

定位唇公差：

Centering shoulder tolerance:

Ø　≦230 mm　→ j6

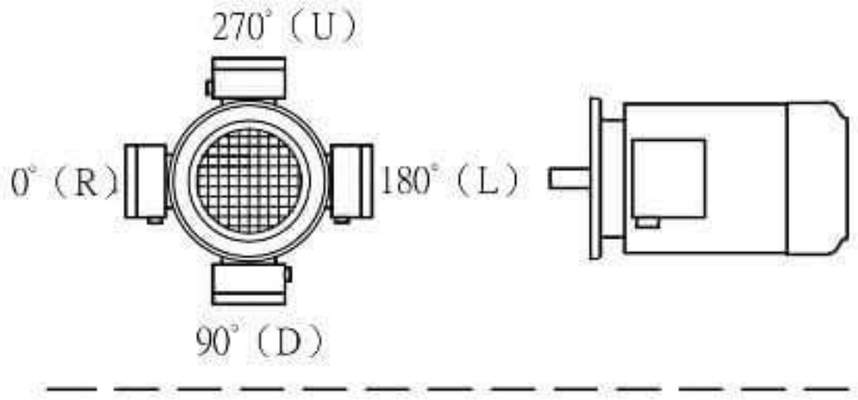
Ø　＞230 mm　→ h6

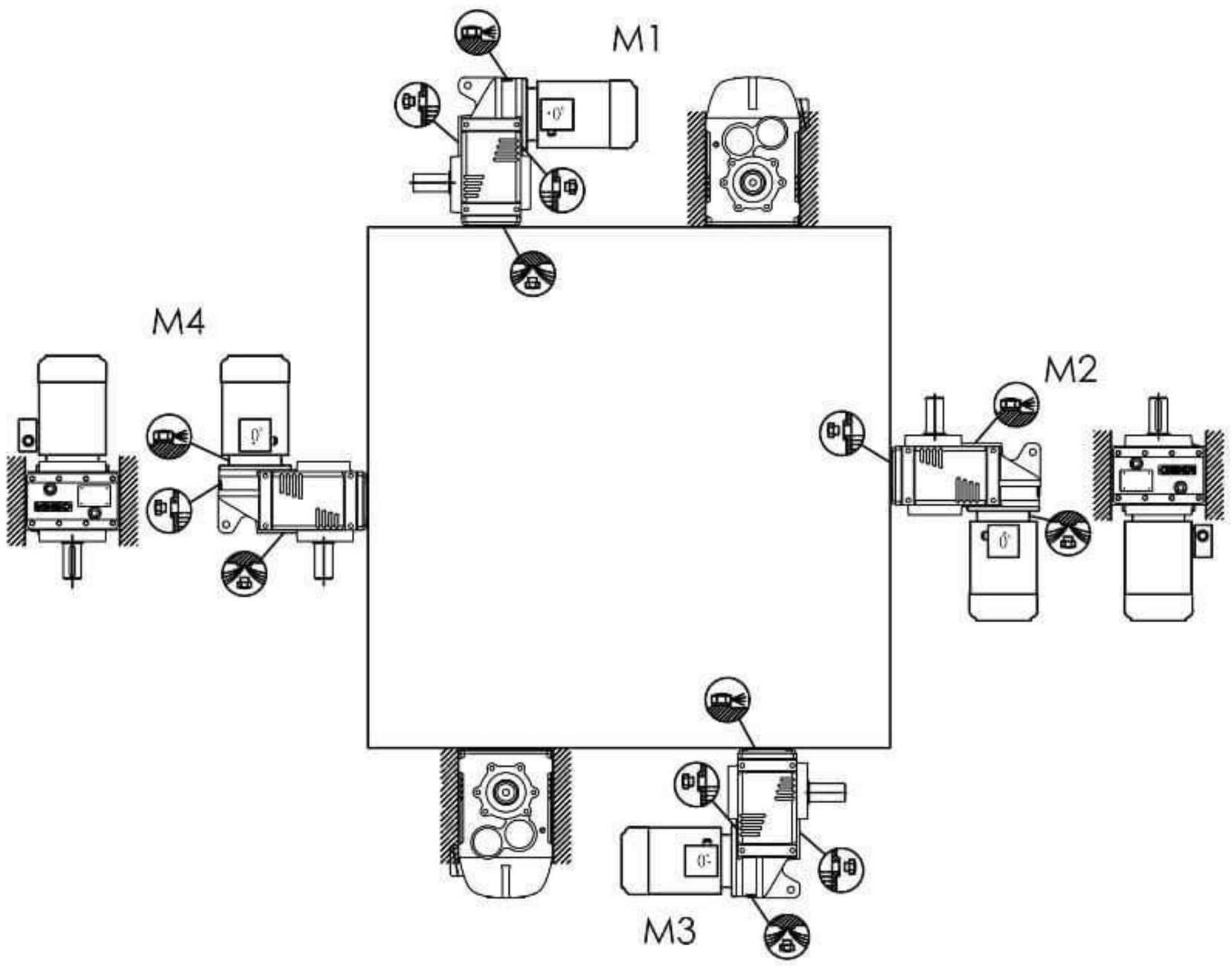


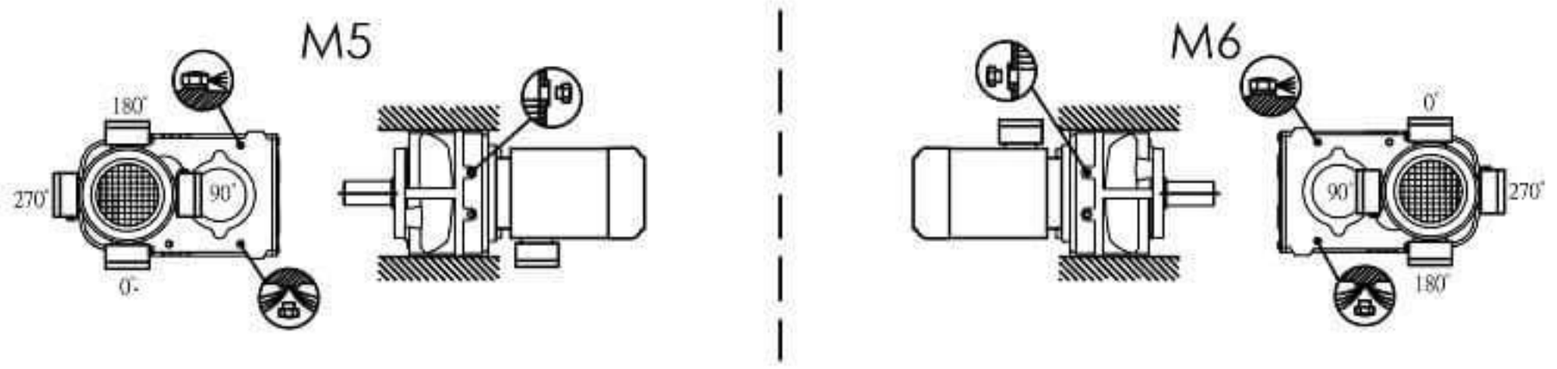
安裝位置 MOUNTING POSITION（FS/FH37~97）

接線盒位置Position of Terminal Box

若未特別指示,標準安裝位置為"U"
Standard position "U", unless specific requirements



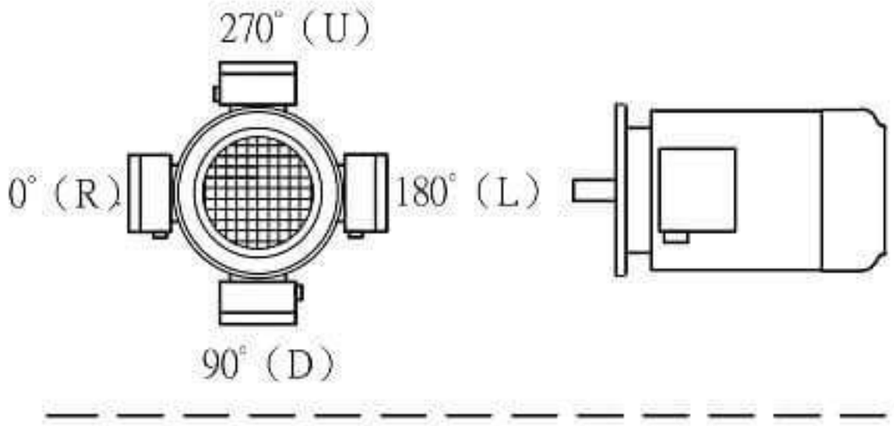




安裝位置 MOUNTING POSITION（FN/FM37~97）

接線盒位置Position of Terminal Box

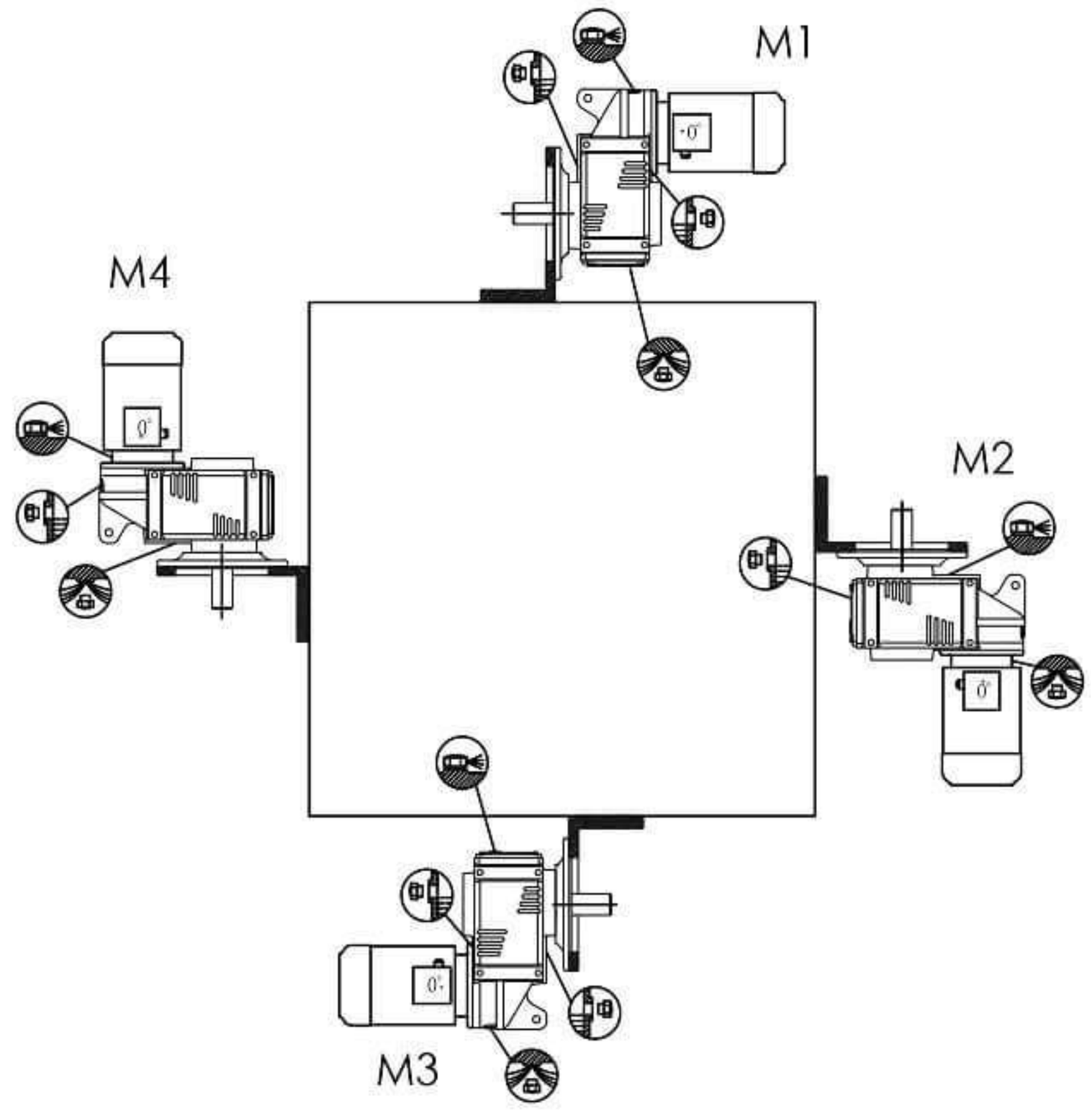
若未特別指示,標準安裝位置為"U"
Standard position "U", unless specific requirements

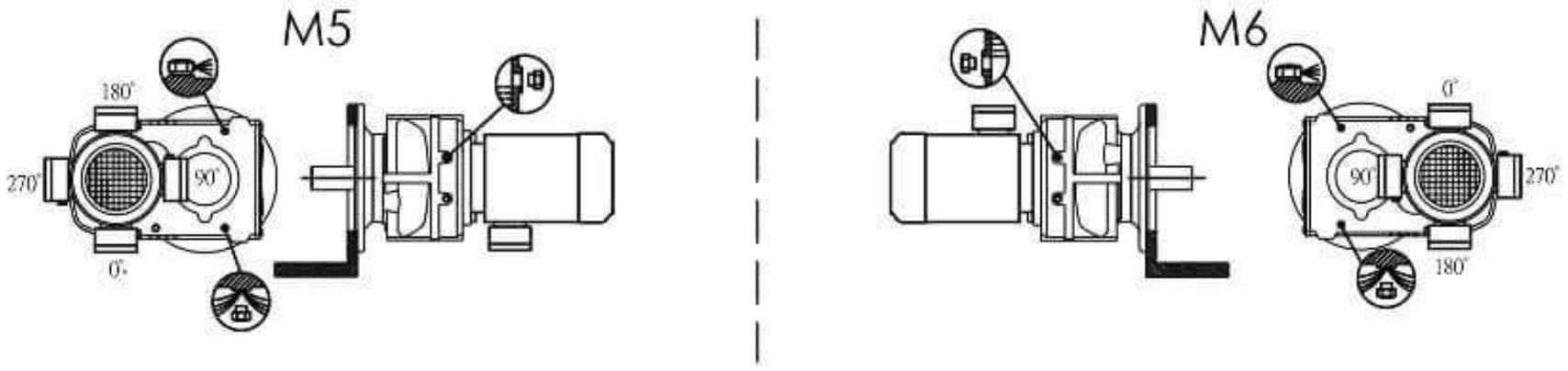


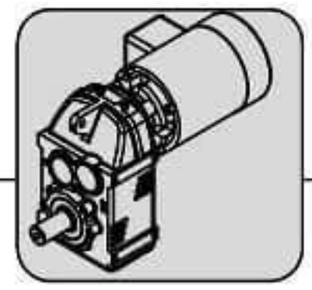
透氣孔Breather

洩油孔Oil Drain

油位孔Oil Level



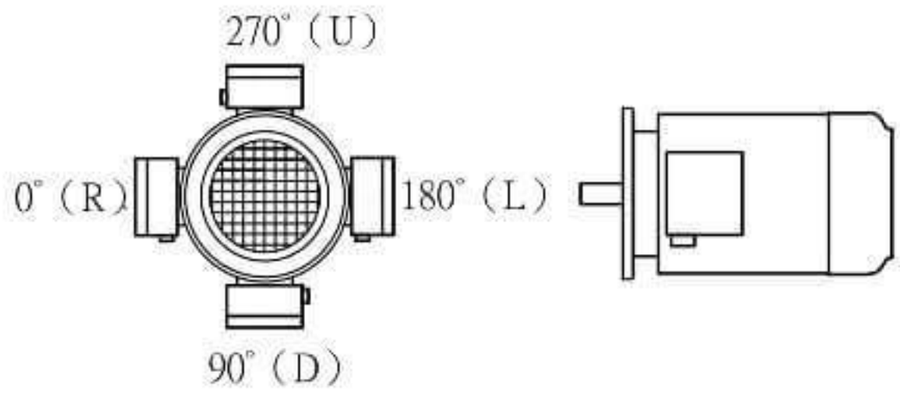




安裝位置 MOUNTING POSITION（FH37~97）

接線盒位置Position of Terminal Box

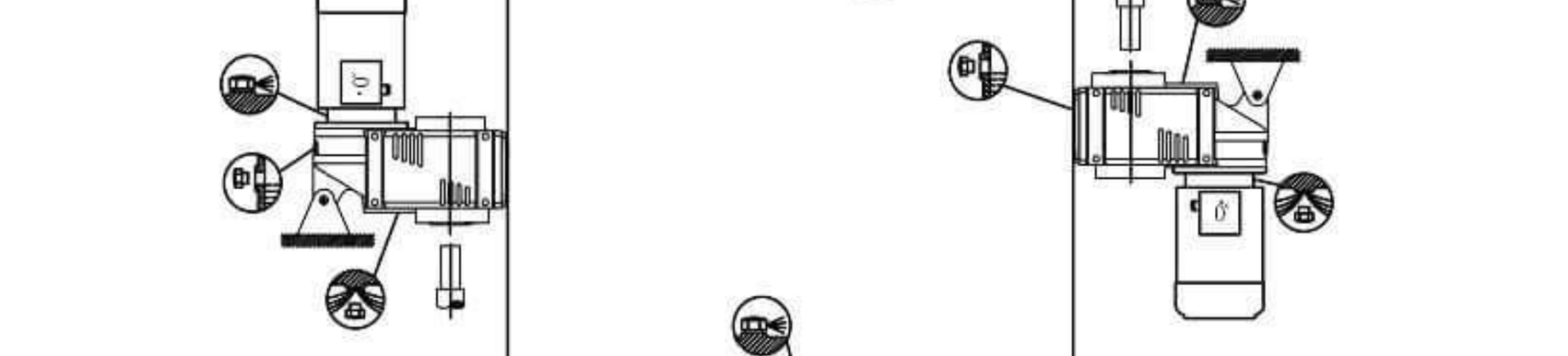
若未特別指示,標準安裝位置為"U"
Standard position "U", unless specific requirements

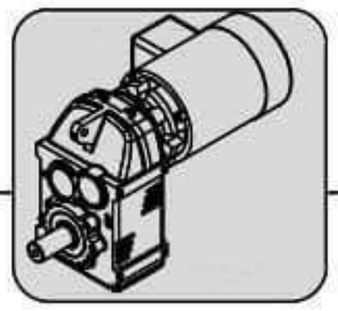



透氣孔Breather


洩油孔Oil Drain


油位孔Oil Level





潤滑油用量&潤滑油選擇 Lubricant Volume&Lubricant Selection

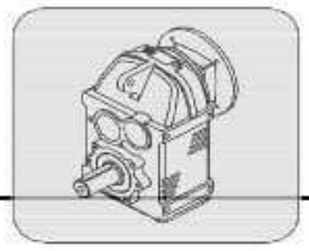
標準負荷，入力轉速600PRM或以上Standard Load,Input 600 RPM or more.				
環境溫度Temperature(C°)	中國石油CPC	ISO VG	Mobil	Shell
-30～-15	HD 100	VG 100	Mobilgear 627	Omala 100
-15～-3	HD 150	VG 150	Mobilgear 629	Omala 150
-3～23	HD 220	VG 220	Mobilgear 630	Omala 220
23～40	HD 320	VG 320	Mobilgear 632	Omala 320
40～80	HD 460	VG 460	Mobilgear 634	Omala 460

超重負荷，入力轉速600RPM或以上 Heavy Load,Input 600 RPM or more.				
環境溫度Temperature(C°)	中國石油CPC	ISO VG	Mobil	Shell
-30～-15	HD 150	VG 150	Mobilgear 629	Omala 150
-15～-3	HD 220	VG 220	Mobilgear 630	Omala 220
-3～23	HD 320	VG 320	Mobilgear 632	Omala 320
23～40	HD 460	VG 460	Mobilgear 634	Omala 460
40～80	HD 680	VG 680	Mobilgear 636	Omala 680

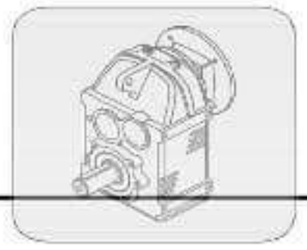
出力轉速>100R.P.M,使用中油國光牌HD220極壓機油或同級品
output RPM<100R.P.M,please use CPC HD-220 E .P.lubricant or equivalent
出力轉速<100R.P.M,使用中油國光HD320極壓機油或同級品
output PRM<100R.P.M,please use CPC HD-320 E.P.lubricant or equivalent

用油量參照表 單位：升 Lubricant Volume （L）						
減速機型號 Gear unit	M1	M2	M3	M4	M5	M6
F...37	1.10	1.35	0.80	1.40	1.10	1.10
F...47	1.70	2.10	1.20	2.00	1.60	1.60
F...57	2.90	3.70	2.20	3.80	3.00	3.00
F...67	3.00	4.00	2.30	3.90	3.20	3.20
F...77	6.00	7.50	4.50	8.20	6.30	6.30
F...87	10.5	13.4	8.00	14.3	11.2	11.2
F...97	19.5	22.7	12.7	25.7	20.5	20.5

以上數據僅供參考
RECOMMENDATIONS



F37 , ne=1400 1/min								200 Nm 實心入力軸徑
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	Input shaft mm
			3					
11	200	4290	128.51					
12	200	4290	117.88					
14	200	4290	100.36					
17	200	4290	80.65					Ø16
20	200	4290	70.5					
21	200	4290	66.09					
24	200	4290	58.32					
26	200	4290	54.54					
27	200	4290	51.7					
32	200	4290	43.83					
37	200	4290	38.31					
39	200	4290	35.91					Ø19
44	200	4290	31.69					
50	200	4070	28.1					
			2					
57	200	3820	24.7					
71	200	3425	19.71					
81	200	3210	17.32					
86	200	3110	16.29					
116	200	2660	12.09					Ø19
135	200	2445	10.39					
151	137	2405	9.27					
172	130	2315	8.14					
246	113	2075	5.68					

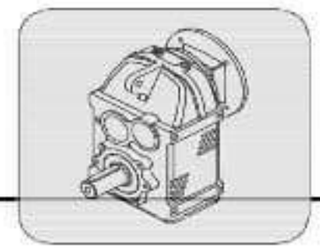


Parallel Shaft Gear Units

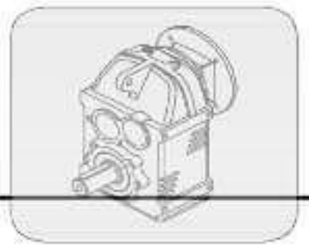
Permitted Combinations

1400 Input Rpm

F47 , ne=1400 1/min								400 Nm 實心入力軸徑
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	Input shaft mm
			3					
9	400	5920	148.71					Ø16
12	400	5920	121.06					
13	400	5920	104.91					
15	400	5920	95.57					
16	400	5920	85.41					
18	400	5920	79.30					Ø19
20	400	5920	71.21					
21	400	5920	67.43					
23	400	5920	60.83					
25	400	5920	55.95					
28	400	5920	50.24					
33	400	5920	42.91					
39	385	5200	36.06					
43	369	4885	32.38					
46	361	4730	30.66					
55	336	4535	25.44					
			2					
57	370	4990	24.76					Ø19
64	371	4710	21.75					
68	372	4565	20.45					
92	374	3865	15.19					
107	374	3520	13.04					
124	243	3580	11.26					
142	230	3450	9.89					
151	225	3390	9.30					
203	200	3110	6.90					
236	188	2970	5.93					
335	164	2680	4.18					



F57 , ne=1400 1/min										600 Nm 實心入力軸徑
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	100L	112M	Input shaft mm
			3							
8	600	9200	174.58							
10	600	9200	139.34							
11	600	9200	122.42							
12	600	9200	115.11							
15	600	9200	95.01							
16	600	9200	85.46							
19	600	9200	73.4							Ø19
27	600	9200	51.72							
22	600	9200	64.76							
25	600	9200	56.9							
35	589	9005	39.72							
41	572	8405	34.11							
58	550	7305	24.04							
			2							
53	549	7585	26.46							
60	551	7210	23.31							Ø19
73	553	6565	19.11							
78	553	6370	18.01							
90	555	5905	15.55							
104	557	5465	13.5							
114	558	5190	12.29							
123	600	4145	11.35							
150	550	3620	9.31							Ø24
160	541	3595	8.77							
185	512	3425	7.57							
213	485	3270	6.57							
234	468	3185	5.98							

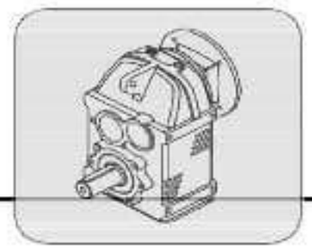


Parallel Shaft Gear Units

Permitted Combinations

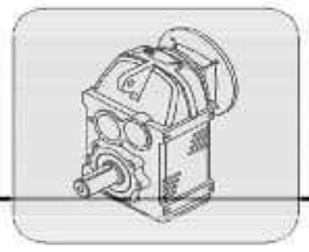
1400 Input Rpm

F67 , ne=1400 1/min										820 Nm	實心入力軸徑
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	100L	112M	Input shaft mm	
			3								
7	820	10300	187.70								
9	820	10300	151.68								
10	820	10300	133.62								
13	797	10300	109.55								
14	791	10300	103.23								
16	767	10300	89.11								
18	748	10300	77.36								
20	732	10300	70.42								Ø19
22	722	10300	64.95								
24	706	10300	57.22								
30	680	10300	46.91								
32	671	10300	44.20								
37	653	10300	38.16								
42	636	10300	33.12								
46	626	10300	30.15								
			2								
49	619	10300	28.44								
77	622	10300	18.10								
87	623	10300	16.12								
97	625	10300	14.46								
105	626	10300	13.31								
124	628	10090	11.31								Ø24
165	632	9105	8.48								
211	543	8215	6.63								
236	525	7950	5.94								
256	513	7750	5.47								



1400 Input Rpm

F77 , ne=1400 1/min										1500 Nm 實心入力軸徑
na [1/min]	Mamax [Nm]	FRa [N]	i	80	90L	100L	112M	132S	132M	Input shaft mm
			3							
8	1500	15700	166.80							
9	1500	15700	160.23							
9	1500	15700	147.56							Ø19
15	1500	15700	93.90							
17	1500	15700	83.63							
19	1500	15700	75.02							
24	1500	15700	59.38							
26	1500	15700	53.26							Ø24
29	1500	15700	49.04							
34	1500	15700	41.67							
45	1500	15700	31.25							Ø38
			2							
57	1500	15700	24.73							
65	1500	15700	21.49							
85	1500	15515	16.56							
90	1500	15160	15.64							
100	1500	14495	14.06							
114	1500	13700	12.28							Ø38
154	1500	11995	9.07							
179	1230	11310	7.83							
189	1207	11135	7.40							
211	1174	10755	6.65							
241	1346	8930	5.81							

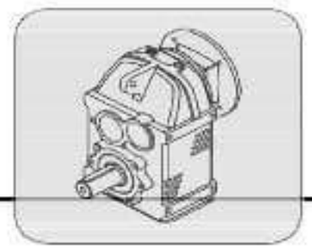


Parallel Shaft Gear Units

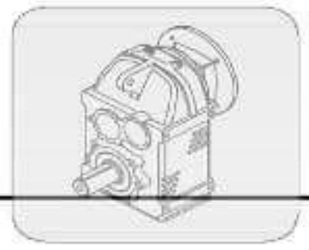
Permitted Combinations

1400 Input Rpm

F87 , ne=1400 1/min											3000 Nm 實心入力軸徑
na [1/min]	Mamax [Nm]	FRa [N]	i	90L	100L	112M	132S	132M	160M	160L	Input shaft mm
			3								
9	3000	19800	162.37								Ø19
10	3000	19800	141.09								
13	3000	19800	108.77								Ø28
14	3000	19800	102.70								
15	3000	19800	92.34								
17	3000	19800	83.32								Ø38
18	3000	19800	78.67								
20	2940	19800	70.73								
23	2866	19800	61.76								
26	2092	19800	53.48								
30	2077	19495	46.47								
39	2088	17310	35.83								
56	2104	14560	24.98								Ø42
71	2117	12850	19.61								
			2								
43	2543	16330	32.21								Ø38
49	2486	15590	28.41								
54	2446	15080	25.94								
63	2420	14045	22.10								
68	2423	13610	20.73								
75	2429	12900	18.69								Ø42
85	2436	12115	16.55								
95	2443	11375	14.76								
106	2450	10705	13.23								
143	2469	8950	9.76								
174	2212	7280	8.04								
197	2161	6915	7.12								
221	2089	6665	6.35								
246	2022	6450	5.69								
334	1840	5925	4.20								

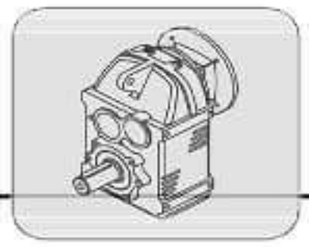


F97 , ne=1400 1/min											4300 Nm 實心入力軸徑
na [1/min]	Mamax [Nm]	FRa [N]	i	100L	112M	132S	132M	160M	160L	180M	Input shaft mm
			3								
8	4300	29900	170.08								Ø28
9	4300	29900	149.98								
10	4300	29900	136.95								
13	4300	29900	109.42								Ø38
12	4300	29900	116.67								
14	4300	29900	98.66								
16	4300	29900	87.40								
18	4218	29785	77.93								
22	4075	27895	64.52								
24	3985	26740	57.15								Ø42
27	3900	25665	50.96								
31	3823	24690	45.69								
42	3616	22170	33.70								
			2								
43	3588	21825	32.38								Ø42
48	3514	20930	28.88								
62	3365	19190	22.72								
80	3350	17010	17.48								Ø48
101	3369	15090	13.86								
108	2332	16330	12.95								
121	2917	13305	11.55								
154	2715	12385	9.09								
200	2049	13165	6.99								
253	2339	10670	5.54								



F37R17 , ne=1400 1/min								200 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	56	63	71	80
			3 3				
0.17	200	4290	8021				
0.20	200	4290	6901				
0.24	200	4290	5950				
0.25	200	4290	5538				
0.28	200	4290	5013				
0.31	200	4290	4537				
0.36	200	4290	3911				
0.41	200	4290	3452				
0.47	200	4290	3001				
0.54	200	4290	2616				
0.60	200	4290	2323				
0.72	200	4290	1939				
0.82	200	4290	1711				
0.92	200	4290	1520				
			2 3				
0.71	200	4290	1973				
0.82	200	4290	1697				
0.96	200	4290	1463				
1.03	200	4290	1354				
1.25	200	4290	1123				
1.36	200	4290	1026				
1.43	200	4290	979				
1.61	200	4290	869				
1.93	200	4290	725				
2.02	200	4290	693				
2.44	200	4290	573				
2.93	200	4290	478				
3.29	200	4290	426				
3.84	200	4290	365				
			3 2				
1.16	200	4290	1211				
1.32	200	4290	1057				
1.57	200	4290	891				
1.73	200	4290	810				
1.98	200	4290	707				
2.33	200	4290	600				
2.55	200	4290	549				

F47R17 , ne=1400 1/min								400 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	56	63	71	80	
			3 3					
0.12	400	5920	11882					
0.14	400	5920	10223					
0.16	400	5920	8814					
0.19	400	5920	7426					
0.21	400	5920	6555					
0.25	400	5920	5651					
0.28	400	5920	5054					
0.32	400	5920	4368					
0.38	400	5920	3690					
0.42	400	5920	3356					
0.48	400	5920	2930					
0.54	400	5920	2598					
0.60	400	5920	2330					
0.67	400	5920	2090					
			2 3					
0.71	400	5920	1977					
0.82	400	5920	1701					
0.94	400	5920	1495					
1.00	400	5920	1406					
1.16	400	5920	1212					
1.34	400	5920	1045					
1.51	400	5920	930					
1.73	400	5920	810					
1.95	400	5920	720					
2.28	400	5920	613					
			3 2					
0.77	400	5920	1818					
0.89	400	5920	1575					
1.05	400	5920	1327					
1.16	400	5920	1207					
1.33	400	5920	1054					
1.53	400	5920	914					
1.76	400	5920	797					
1.98	400	5920	708					
2.20	400	5920	635					
2.58	400	5920	543					
2.94	400	5920	476					

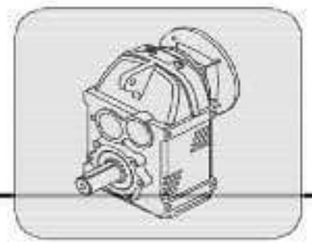


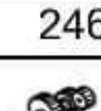
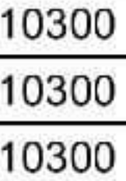
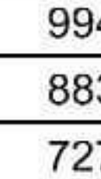
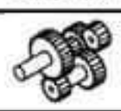
Parallel Shaft Gear Units

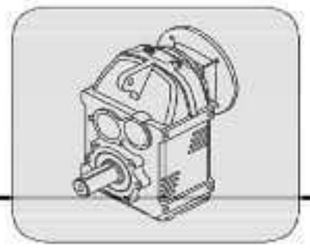
Permitted Combinations

1400 Input Rpm

F57R37 , ne=1400 1/min							600 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90
			3 3				
0.10	600	9200	14610				
0.10	600	9200	13392				
0.11	600	9200	12757				
0.12	600	9200	11211				
0.14	600	9200	9770				
0.16	600	9200	8716				
0.18	600	9200	7837				
0.20	600	9200	6830				
0.23	600	9200	6017				
0.26	600	9200	5391				
0.30	600	9200	4617				
0.35	600	9200	4024				
0.39	600	9200	3573				
0.44	600	9200	3171				
0.49	600	9200	2856				
0.57	600	9200	2465				
0.63	600	9200	2217				
0.74	600	9200	1899				
0.83	600	9200	1680				
0.95	600	9200	1476				
1.13	600	9200	1236				
			2 3				
0.50	600	9200	2780				
0.53	600	9200	2661				
0.61	600	9200	2282				
0.69	600	9200	2030				
0.78	600	9200	1786				
0.87	600	9200	1611				
0.98	600	9200	1424				
1.13	600	9200	1241				
1.32	600	9200	1061				
1.50	600	9200	934				
1.66	600	9200	842				
1.83	600	9200	767				
2.09	600	9200	668				
2.58	600	9200	543				
2.90	600	9200	483				



F67R37 , ne=1400 1/min								820 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90	
			 3  3					
0.08	820	10300	18485					
0.09	820	10300	15177					
0.11	820	10300	13084					
0.13	820	10300	11025					
0.14	820	10300	10040					
0.16	820	10300	8750					
0.18	820	10300	7914					
0.20	820	10300	7087					
0.24	820	10300	5942					
0.26	820	10300	5355					
0.30	820	10300	4667					
0.34	820	10300	4138					
0.39	820	10300	3575					
0.45	820	10300	3116					
0.51	820	10300	2767					
0.57	820	10300	2466					
			 2  3					
0.41	820	10300	3394					
0.49	820	10300	2859					
0.54	820	10300	2604					
0.62	820	10300	2269					
0.64	820	10300	2181					
0.70	820	10300	1986					
0.84	820	10300	1659					
0.97	820	10300	1446					
1.12	820	10300	1252					
1.23	820	10300	1140					
1.41	820	10300	994					
1.59	820	10300	883					
1.93	820	10300	727					
2.21	820	10300	633					
2.62	820	10300	533					
			 3  2					
0.68	820	10300	2059					
0.74	820	10300	1897					
0.86	820	10300	1626					
0.98	820	10300	1433					



Parallel Shaft Gear Units

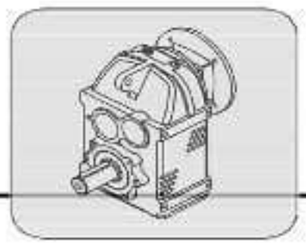
Permitted Combinations

1400 Input Rpm

F77R37 , ne=1400 1/min							1500 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90
		3	3				
0.07	1500	15700	19110				
0.08	1500	15700	17598				
0.09	1500	15700	16102				
0.09	1500	15700	14828				
0.10	1500	15700	13504				
0.12	1500	15700	11768				
0.12	1500	15700	11310				
0.14	1500	15700	10300				
0.14	1500	15700	9747				
0.16	1500	15700	8605				
0.19	1500	15700	7499				
0.21	1500	15700	6563				
0.24	1500	15700	5720				
0.27	1500	15700	5098				
0.31	1500	15700	4563				
0.37	1500	15700	3768				
0.42	1500	15700	3359				
0.47	1500	15700	3006				
0.53	1500	15700	2619				
0.60	1500	15700	2326				
0.67	1500	15700	2079				
		2	3				
0.41	1500	15700	3420				
0.47	1500	15700	2949				
0.55	1500	15700	2563				
0.62	1500	15700	2263				
0.71	1500	15700	1972				
0.81	1500	15700	1726				
0.85	1500	15700	1647				
0.98	1500	15700	1432				
1.05	1500	15700	1336				
1.21	1500	15700	1161				
1.30	1500	15700	1078				
1.57	1500	15700	894				
		3	2				
0.83	1500	15700	1682				
0.93	1500	15700	1499				

1400 Input Rpm

F87R57 , ne=1400 1/min									3000 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90	100L	112M
		3	3						
0.06	3000	19800	23147						
0.07	3000	19800	19942						
0.08	3000	19800	18215						
0.09	3000	19800	15922						
0.10	3000	19800	14034						
0.11	3000	19800	12267						
0.13	3000	19800	10452						
0.15	3000	19800	9392						
0.17	3000	19800	8180						
0.20	3000	19800	7045						
0.22	3000	19800	6274						
0.25	3000	19800	5553						
0.28	3000	19800	4989						
0.33	3000	19800	4258						
0.38	3000	19800	3729						
		2	3						
0.29	3000	19800	4750						
0.33	3000	19800	4261						
0.37	3000	19800	3796						
0.41	3000	19800	3421						
0.44	3000	19800	3209						
0.49	3000	19800	2853						
0.55	3000	19800	2567						
0.65	3000	19800	2140						
0.73	3000	19800	1907						
0.82	3000	19800	1710						
0.98	3000	19800	1433						
1.12	3000	19800	1249						
1.24	3000	19800	1126						
1.41	3000	19800	990						
1.57	3000	19800	890						
1.78	3000	19800	785						
1.83	3000	19800	766						
		3	2						
0.42	3000	19800	3322						
0.47	3000	19800	2957						
0.54	3000	19800	2596						

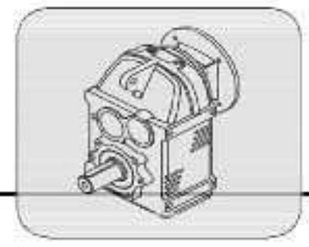


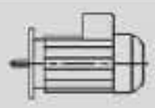
Parallel Shaft Gear Units

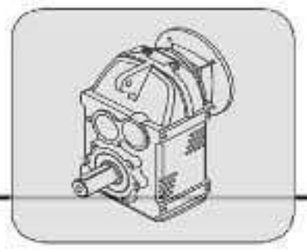
Permitted Combinations

1400 Input Rpm

F97R57 , ne=1400 1/min									4300 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90	100L	112M
		3	3						
0.05	4300	29900	27882						
0.06	4300	29900	24021						
0.07	4300	29900	21182						
0.08	4300	29900	17946						
0.09	4300	29900	15461						
0.10	4300	29900	13932						
0.11	4300	29900	12345						
0.13	4300	29900	10870						
0.15	4300	29900	9601						
0.17	4300	29900	8340						
0.19	4300	29900	7207						
0.22	4300	29900	6417						
0.25	4300	29900	5648						
0.28	4300	29900	5047						
0.32	4300	29900	4366						
		2	3						
0.24	4300	29900	5927						
0.27	4300	29900	5282						
0.31	4300	29900	4580						
0.34	4300	29900	4081						
0.42	4300	29900	3296						
0.47	4300	29900	2977						
0.54	4300	29900	2580						
0.61	4300	29900	2299						
0.72	4300	29900	1950						
0.81	4300	29900	1738						
0.95	4300	29900	1473						
1.05	4300	29900	1333						
1.14	4300	29900	1226						
1.33	4300	29900	1049						
		3	2						
0.37	4300	29900	3786						
0.40	4300	29900	3458						
0.48	4300	29900	2943						
0.54	4300	29900	2575						
0.61	4300	29900	2292						
0.71	4300	29900	1967						



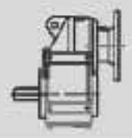
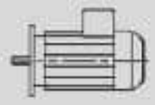
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
0.12	**0.22**	4374	6417	29900	0.98	**FS97 R57**		187
(0.16HP)	**0.25**	3849	5648	29900	1.12	**FM97 R57**	**63**	202
	0.28	3440	5047	29900	1.25	**FN97 R57**		217
	0.32	2976	4366	29900	1.45	**FH97 R57**		177
	0.34	2867	4081	29900	1.50	**FS97 R57**		182
	0.42	2316	3296	29900	1.86	**FM97 R57**	**63**	197
	0.47	2092	2977	29900	2.06	**FN97 R57**		212
	0.54	1813	2580	29900	2.37	**FH97 R57**		172
	0.33	2902	4258	19800	1.03	**FS87 R57**		117
	0.38	2541	3729	19800	1.18	**FM87 R57**	**63**	127
						FN87 R57		137
						FH87 R57		112
	0.44	2254	3209	19800	1.33			
	0.49	2005	2853	19800	1.50			
	0.55	1804	2567	19800	1.66	**FS87 R57**		112
	0.65	1504	2140	19800	1.99	**FM87 R57**		122
	0.73	1340	1907	19800	2.24	**FN87 R57**	**63**	132
	0.82	1202	1710	19800	2.50	**FH87 R57**		107
	0.98	1006	1433	19800	2.98			
	1.12	878	1249	19800	3.42			
	1.24	791	1126	19800	3.79			
	0.53	1785	2619	15700	0.84	**FS77 R37**		66
	0.60	1585	2326	15700	0.95	**FM77 R37**	**63**	68
	0.67	1417	2079	15700	1.06	**FN77 R37**		76
						FH77 R37		62
	0.81	1213	1726	15700	1.24			
	0.85	1157	1647	15700	1.30	**FS77 R37**		65
	0.98	1006	1432	15700	1.49	**FM77 R37**		66
	1.05	938	1336	15700	1.60	**FN77 R37**	**63**	74
	1.21	816	1161	15700	1.84	**FH77 R37**		61
	1.30	757	1078	15700	1.98			
	1.57	628	894	15700	2.39			
	0.98	1007	1433	10300	0.81			
	1.09	904	1287	10300	0.91			
	1.26	781	1112	10300	1.05			
	1.38	711	1012	10300	1.15	**FS67 R37**		42
	1.65	596	848	10300	1.38	**FM67 R37**	**63**	46
	1.88	524	746	10300	1.56	**FN67 R37**		48
	2.15	457	651	10300	1.79	**FH67 R37**		40
	2.45	402	572	10300	2.04			
	2.73	361	513	10300	2.27			
	3.20	307	437	10300	2.67			
	1.65	596	848	9200	1.01			
	1.90	516	735	9200	1.16	**FS57 R37**		39
	2.15	457	650	9200	1.31	**FM57 R37**	**63**	45
	2.54	387	551	9200	1.55	**FN57 R37**		46
	2.83	347	494	9200	1.73	**FH57 R37**		39
	3.14	313	446	9200	1.91			
	3.31	306	423	9200	1.96	**FS57 R37**		38
	3.67	276	382	9200	2.17	**FM57 R37**		44
	4.23	240	331	9200	2.50	**FN57 R37**	**63**	45
	4.65	218	301	9200	2.75	**FH57 R37**		38
	5.28	192	265	9200	3.12			
	2.58	382	543	5920	1.05	**FS47 R17**		25
	2.94	335	476	5920	1.20	**FM47 R17**	**63**	27
	3.36	293	417	5920	1.37	**FN47 R17**		28
						FH47 R17		25
	3.77	269	372	5920	1.49	**FS47 R17**	**63**	25
	4.28	237	327	5920	1.69	**FM47 R17**		27

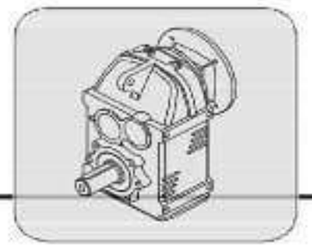


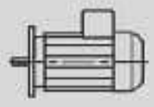
Parallel Shaft Gear Units

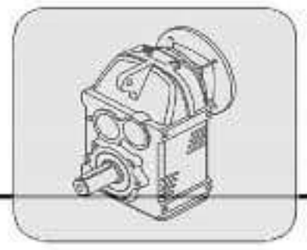
Selection Tables [kW] F..F/..M

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	4.56	223	307	5920	1.80	**FN47 R17**	**63**	28
	5.41	188	259	5920	2.13	**FH47 R17**		25
	4.28	230	327	4290	0.87	**FS37 R17**		20
	5.12	192	273	4290	1.04	**FM37 R17**	**63**	21
	5.92	166	236	4290	1.20	**FN37 R17**		22
	6.32	156	222	4290	1.28	**FH37 R17**		20
	4.48	226	313	4290	0.88			
	4.73	214	296	4290	0.93	**FS37 R17**		20
	5.64	180	248	4290	1.11	**FM37 R17**	**63**	21
	6.39	159	219	4290	1.26	**FN37 R17**		22
	7.61	133	184	4290	1.50	**FH37 R17**		20
	8.56	118	164	4290	1.69			
	7.46	140	187.70	10300	5.84	**FS67**		32
						FM67	**63**	36
						FN67		38
						FH67		30
	8.02	130	174.58	9200	4.60	**FS57**		29
	10.05	104	139.34	9200	5.77	**FM57**	**63**	25
						FN57		36
						FH57		29
	9.41	111	148.71	5920	3.60	**FS47**		20
	11.57	90	121.06	5920	4.43	**FM47**	**63**	22
	13.35	78	104.91	5920	5.11	**FN47**		23
	14.67	71	95.57	5920	5.61	**FH47**		20
	10.89	96	128.51	4290	2.09			
	11.88	88	117.88	4290	2.27			
	13.95	75	100.36	4290	2.67	**FS37**		15
	17.36	60	80.65	4290	3.32	**FM37**		16
	19.86	53	70.50	4290	3.81	**FN37**	**63**	17
	21.18	49	66.09	4290	4.06	**FH37**		15
	24.01	44	58.32	4290	4.59			
	25.67	41	54.54	4290	4.90			
	27.08	39	51.70	4290	5.17			
0.18 (0.25HP)	**0.32**	4463	4366	29900	0.96	**FS97 R57**		187
						FM97 R57	**63**	202
						FN97 R57		217
						FH97 R57		177
	0.34	4301	4081	29900	1.00			
	0.42	3474	3296	29900	1.24			
	0.47	3137	2977	29900	1.37			
	0.54	2719	2580	29900	1.58	**FS97 R57**		182
	0.61	2423	2299	29900	1.77	**FM97 R57**	**63**	197
	0.72	2055	1950	29900	2.09	**FN97 R57**		212
	0.81	1831	1738	29900	2.35	**FH97 R57**		172
	0.95	1553	1473	29900	2.77			
	1.05	1405	1333	29900	3.06			
	1.14	1292	1226	29900	3.33			
	0.54	2735	2596	19800	1.10			
	0.64	2291	2174	19800	1.31			
	0.72	2039	1935	19800	1.47			
	0.81	1828	1735	19800	1.64	**FS87 R57**		117
	0.94	1564	1484	19800	1.92	**FM87 R57**	**63**	127
	1.08	1364	1294	19800	2.20	**FN87 R57**		137
	1.20	1227	1164	19800	2.45	**FH87 R57**		112
	1.32	1121	1064	19800	2.68			
	1.46	1013	961	19800	2.96			
	1.72	860	816	19800	3.49			
	0.93	1580	1499	15700	0.95			
	1.04	1414	1342	15700	1.06			



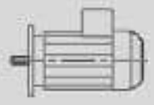
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	1.17	1266	1201	15700	1.19	**FS77 R37**		66
	1.32	1120	1062	15700	1.34	**FM77 R37**	**63**	68
	1.59	927	880	15700	1.62	**FN77 R37**		76
	1.75	842	799	15700	1.78	**FH77 R37**		62
	1.97	750	712	15700	2.00			
	2.35	629	596	15700	2.39			
	1.65	894	848	10300	0.92			
	1.88	787	746	10300	1.04	**FS67 R37**		42
	2.15	686	651	10300	1.20	**FM67 R37**		46
	2.45	603	572	10300	1.36	**FN67 R37**	**63**	48
	2.73	541	513	10300	1.52	**FH67 R37**		40
	3.20	461	437	10300	1.78			
	3.66	403	382	10300	2.04			
	2.75	553	509	10300	1.48			
	3.15	483	444	10300	1.70	**FS67 R37**		41
	3.50	435	400	10300	1.88	**FM67 R37**		45
	4.19	363	334	10300	2.26	**FN67 R37**	**63**	47
	4.90	310	285	10300	2.64	**FH67 R37**		39
	5.91	257	237	10300	3.19			
	7.30	208	192	10300	3.94			
	2.54	581	551	9200	1.03	**FS57 R37**		39
	2.83	521	494	9200	1.15	**FM57 R37**		45
	3.14	470	446	9200	1.28	**FN57 R37**	**63**	46
	3.64	405	384	9200	1.48	**FH57 R37**		39
	4.13	357	339	9200	1.68			
	3.31	459	423	9200	1.31			
	3.67	415	382	9200	1.45	**FS57 R37**		38
	4.23	360	331	9200	1.67	**FM57 R37**		44
	4.65	327	301	9200	1.83	**FN57 R37**	**63**	45
	5.28	288	265	9200	2.08	**FH57 R37**		38
	6.22	244	225	9200	2.45			
	6.89	221	203	9200	2.72			
	3.75	394	374	5920	1.02	**FS47 R17**		25
	4.31	343	325	5920	1.17	**FM47 R17**	**63**	27
	4.86	304	288	5920	1.32	**FN47 R17**		28
	5.68	260	247	5920	1.54	**FH47 R17**		25
	4.28	355	327	5920	1.13			
	4.56	334	307	5920	1.20	**FS47 R17**		25
	5.41	281	259	5920	1.42	**FM47 R17**	**63**	27
	6.41	237	218	5920	1.69	**FN47 R17**		28
	7.27	209	192	5920	1.91	**FH47 R17**		25
	8.28	184	169	5920	2.18			
	7.61	200	184	4290	1.00	**FS37 R17**		20
	8.56	178	164	4290	1.13	**FM37 R17**	**63**	21
	9.54	159	147	4290	1.25	**FN37 R17**		22
	10.86	140	129	4290	1.43	**FH37 R17**		20
	7.46	210	187.70	10300	3.90	**FS67**		32
	9.23	170	151.68	10300	4.82	**FM67**	**63**	36
	10.48	150	133.62	10300	5.48	**FN67**		38
						FH67		30
	8.02	196	174.58	9200	3.07	**FS57**		29
	10.05	156	139.34	9200	3.84	**FM57**		25
	11.44	137	122.42	9200	4.37	**FN57**	**63**	36
	12.16	129	115.11	9200	4.65	**FH57**		29
	14.74	106	95.01	9200	5.63			
	9.41	167	148.71	5920	2.40			
	11.57	136	121.06	5920	2.95			
	13.35	118	104.91	5920	3.40	**FS47**		20
	14.67	107	95.57	5920	3.74	**FM47**		22

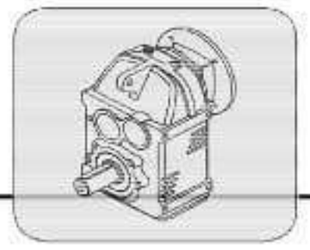


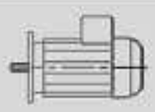
Parallel Shaft Gear Units

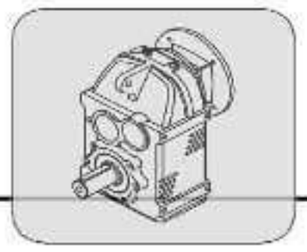
Selection Tables [kW] F..F/..M

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	16.41	96	85.41	5920	4.19	**FN47**	**63**	23
	17.63	89	79.30	5920	4.50	**FH47**		20
	19.66	80	71.21	5920	5.02			
	20.81	75	67.43	5920	5.31			
	23.00	68	60.83	5920	5.87			
	10.89	144	128.51	4290	1.39			
	11.88	132	117.88	4290	1.52			
	13.95	112	100.36	4290	1.78			
	17.36	90	80.65	4290	2.22			
	19.86	79	70.50	4290	2.54	**FS37**		15
	21.18	74	66.09	4290	2.70	**FM37**		16
	24.01	65	58.32	4290	3.06	**FN37**	**63**	17
	25.67	61	54.54	4290	3.26	**FH37**		15
	27.08	58	51.70	4290	3.45			
	31.94	49	43.83	4290	4.07			
	36.54	43	38.31	4290	4.66			
	38.98	40	35.91	4290	4.96			
	44.18	35	31.69	4290	5.62			
0.25	**0.48**	4308	2943	29900	1.00			
(0.34HP)	**0.54**	3769	2575	29900	1.14			
	0.61	3355	2292	29900	1.28	**FS97 R57**		187
	0.71	2879	1967	29900	1.49	**FM97 R57**		202
	0.81	2528	1727	29900	1.70	**FN97 R57**	**71**	217
	0.89	2309	1578	29900	1.86	**FH97 R57**		177
	1.04	1965	1343	29900	2.19			
	1.23	1663	1136	29900	2.59			
	1.39	1475	1008	29900	2.92			
	0.72	2832	1935	19800	1.06			
	0.81	2539	1735	19800	1.18			
	0.94	2172	1484	19800	1.38	**FS87 R57**		117
	1.08	1894	1294	19800	1.58	**FM87 R57**		127
	1.20	1704	1164	19800	1.76	**FN87 R57**	**71**	137
	1.32	1557	1064	19800	1.93	**FH87 R57**		112
	1.46	1406	961	19800	2.13			
	1.72	1194	816	19800	2.51			
	1.98	1036	708	19800	2.89			
	1.32	1555	1062	15700	0.96			
	1.59	1288	880	15700	1.16			
	1.75	1169	799	15700	1.28	**FS77 R37**		66
	1.97	1042	712	15700	1.44	**FM77 R37**	**71**	68
	2.35	873	596	15700	1.72	**FN77 R37**		76
	2.59	792	541	15700	1.89	**FH77 R37**		62
	2.90	706	482	15700	2.13			
	3.36	610	416	15700	2.46			
	2.45	838	572	10300	0.98	**FS67 R37**		42
	2.73	751	513	10300	1.09	**FM67 R37**	**71**	46
	3.20	640	437	10300	1.28	**FN67 R37**		48
						FH67 R37		40
	2.75	768	509	10300	1.07			
	3.15	670	444	10300	1.22	**FS67 R37**		41
	3.50	604	400	10300	1.36	**FM67 R37**	**71**	45
	4.19	504	334	10300	1.63	**FN67 R37**		47
	4.90	431	285	10300	1.90	**FH67 R37**		39
	5.91	357	237	10300	2.29			
	3.64	562	384	9200	1.07	**FS57 R37**		39
	4.13	496	339	9200	1.21	**FM57 R37**	**71**	45
	5.54	370	253	9200	1.62	**FN57 R37**		46
						FH57 R37		39
	3.67	576	382	9200	1.04			



Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	4.23	499	331	9200	1.20	**FS57 R37**		38
	4.65	455	301	9200	1.32	**FM57 R37**		44
	5.28	400	265	9200	1.50	**FN57 R37**	**71**	45
	6.22	340	225	9200	1.77	**FH57 R37**		38
	6.89	307	203	9200	1.96			
	7.93	266	176	9200	2.25			
	5.68	361	247	5920	1.11	**FS47 R17**		25
	6.53	314	214	5920	1.28	**FM47 R17**	**71**	27
	7.39	277	189	5920	1.44	**FN47 R17**		28
	8.06	254	174	5920	1.57	**FH47 R17**		25
	5.41	391	259	5920	1.02			
	6.41	330	218	5920	1.21	**FS47 R17**		25
	7.27	290	192	5920	1.38	**FM47 R17**	**71**	27
	8.28	255	169	5920	1.57	**FN47 R17**		28
	9.43	224	149	5920	1.78	**FH47 R17**		25
	10.70	197	131	5920	2.03			
	9.54	221	147	4290	0.90	**FS37 R17**		20
	10.86	195	129	4290	1.03	**FM37 R17**		21
	11.95	177	117	4290	1.13	**FN37 R17**	**71**	22
	14.23	148	98	4290	1.35	**FH37 R17**		20
	16.19	130	86	4290	1.53			
	8.39	259	166.80	15700	5.78	**FS77**		57
						FM77	**71**	58
						FN77		66
						FH77		53
	7.46	292	187.70	10300	2.81			
	9.23	236	151.68	10300	3.47	**FS67**		32
	10.48	208	133.62	10300	3.95	**FM67**	**71**	36
	12.78	170	109.55	10300	4.67	**FN67**		38
	13.56	161	103.23	10300	4.93	**FH67**		30
	15.71	139	89.11	10300	5.53			
	8.02	272	174.58	9200	2.21			
	10.05	217	139.34	9200	2.77	**FS57**		29
	11.44	190	122.42	9200	3.15	**FM57**		25
	12.16	179	115.11	9200	3.35	**FN57**	**71**	36
	14.74	148	95.01	9200	4.05	**FH57**		29
	16.38	133	85.46	9200	4.50			
	19.07	114	73.40	9200	5.26			
	9.41	231	148.71	5920	1.73			
	11.57	188	121.06	5920	2.12			
	13.35	163	104.91	5920	2.45			
	14.67	148	95.57	5920	2.69			
	16.41	133	85.41	5920	3.01	**FS47**		20
	17.63	124	79.30	5920	3.24	**FM47**	**71**	22
	19.66	111	71.21	5920	3.61	**FN47**		23
	20.81	105	67.43	5920	3.82	**FH47**		20
	23.00	95	60.83	5920	4.22			
	25.01	87	55.95	5920	4.59			
	27.89	78	50.24	5920	5.12			
	32.62	67	42.91	5920	5.99			
	10.89	200	128.51	4290	1.00			
	11.88	183	117.88	4290	1.09			
	13.95	156	100.36	4290	1.28			
	17.36	125	80.65	4290	1.59			
	19.86	110	70.50	4290	1.83			
	21.18	103	66.09	4290	1.95	**FS37**		15
	24.01	91	58.32	4290	2.21	**FM37**	**71**	16
	25.67	85	54.54	4290	2.35	**FN37**		17
	27.08	80	51.70	4290	2.48	**FH37**		15

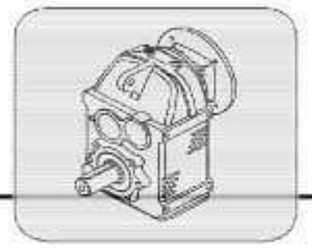


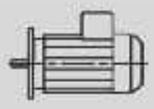
Parallel Shaft Gear Units

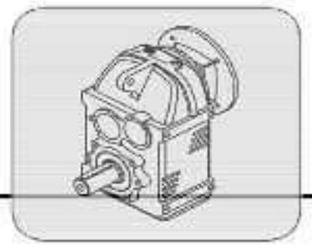
Selection Tables [kW] F..F/..M

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	31.94	68	43.83	4290	2.93			
	36.54	60	38.31	4290	3.35			
	38.98	56	35.91	4290	3.57			
	44.18	49	31.69	4290	4.05			
	49.83	44	28.10	4290	4.56			
	56.68	40	24.70	4290	5.05	**FS37**		15
						FM37	**71**	16
						FN37		17
						FH37		15
0.37	**0.71**	4261	1967	29900	1.01			
(0.5HP)	**0.81**	3741	1727	29900	1.15	**FS97 R57**		187
	0.89	3417	1578	29900	1.26	**FM97 R57**		202
	1.04	2908	1343	29900	1.48	**FN97 R57**	**71**	217
	1.23	2461	1136	29900	1.75	**FH97 R57**		177
	1.39	2183	1008	29900	1.97			
	1.56	1944	897	29900	2.21			
	1.08	2803	1294	19800	1.07			
	1.20	2522	1164	19800	1.19			
	1.32	2305	1064	19800	1.30	**FS87 R57**		117
	1.46	2081	961	19800	1.44	**FM87 R57**		127
	1.72	1768	816	19800	1.70	**FN87 R57**	**71**	137
	1.98	1534	708	19800	1.96	**FH87 R57**		112
	2.20	1378	636	19800	2.18			
	2.58	1176	543	19800	2.55			
	2.87	1057	488	19800	2.84			
	1.75	1730	799	15700	0.87			
	1.97	1542	712	15700	0.97			
	2.35	1292	596	15700	1.16	**FS77 R37**		66
	2.59	1172	541	15700	1.28	**FM77 R37**	**71**	68
	2.90	1045	482	15700	1.44	**FN77 R37**		76
	3.36	902	416	15700	1.66	**FH77 R37**		62
	3.83	793	366	15700	1.89			
	4.47	679	313	15700	2.21			
	3.66	828	382	10300	0.99	**FS67 R37**		42
	4.22	719	332	10300	1.14	**FM67 R37**		46
	4.63	655	303	10300	1.25	**FN67 R37**	**71**	48
	5.45	557	257	10300	1.47	**FH67 R37**		40
	6.12	496	229	10300	1.65			
	5.54	548	253	9200	1.10	**FS57 R37**		39
	6.75	449	207	9200	1.34	**FM57 R37**	**71**	45
	7.20	421	194	9200	1.42	**FN57 R37**		46
						FH57 R37		39
	5.28	593	265	9200	1.01			
	6.22	502	225	9200	1.19	**FS57 R37**		38
	6.89	454	203	9200	1.32	**FM57 R37**	**71**	44
	7.93	394	176	9200	1.52	**FN57 R37**		45
	9.19	340	152	9200	1.76	**FH57 R37**		38
	10.44	299	134	9200	2.00			
	8.28	377	169	5920	1.06	**FS47 R17**		25
	9.43	332	149	5920	1.21	**FM47 R17**	**71**	27
	10.70	292	131	5920	1.37	**FN47 R17**		28
						FH47 R17		25
	8.39	384	166.80	15700	3.90	**FS77**		57
	8.74	369	160.23	15700	4.07	**FM77**	**71**	58
	9.49	340	147.56	15700	4.42	**FN77**		66
						FH77		53
	7.46	432	187.70	10300	1.90			
	9.23	349	151.68	10300	2.35			
	10.48	308	133.62	10300	2.67			



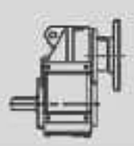
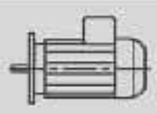
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	12.78	252	109.55	10300	3.16	**FS67**	**71**	32
	13.56	238	103.23	10300	3.33	**FM67**		36
	15.71	205	89.11	10300	3.74	**FN67**		38
	18.10	178	77.36	10300	4.20	**FH67**		30
	19.88	162	70.42	10300	4.50			
	21.56	150	64.95	10300	4.83			
	24.47	132	57.22	10300	5.37			
	8.02	402	174.58	9200	1.49			
	10.05	321	139.34	9200	1.87			
	11.44	282	122.42	9200	2.13			
	12.16	265	115.11	9200	2.26	**FS57**	**71**	29
	14.74	219	95.01	9200	2.74	**FM57**		25
	16.38	197	85.46	9200	3.04	**FN57**		36
	19.07	169	73.40	9200	3.55	**FH57**		29
	27.07	119	51.72	9200	5.03			
	21.62	149	64.76	9200	4.02			
	24.61	131	56.90	9200	4.57			
	9.41	343	148.71	5920	1.17			
	11.57	279	121.06	5920	1.44			
	13.35	242	104.91	5920	1.66			
	14.67	220	95.57	5920	1.82			
	16.41	196	85.41	5920	2.04			
	17.63	183	79.30	5920	2.19			
	19.66	164	71.21	5920	2.44	**FS47**	**71**	20
	20.81	155	67.43	5920	2.58	**FM47**		22
	23.00	140	60.83	5920	2.85	**FN47**		23
	25.01	129	55.95	5920	3.10	**FH47**		20
	27.89	116	50.24	5920	3.46			
	32.62	99	42.91	5920	4.05			
	38.80	83	36.06	5920	4.64			
	43.26	75	32.38	5920	4.95			
	45.79	70	30.66	5920	5.13			
	55.03	59	25.44	5920	5.74			
	13.95	231	100.36	4290	0.86			
	17.36	186	80.65	4290	1.08			
	19.86	162	70.50	4290	1.23			
	21.18	152	66.09	4290	1.32			
	24.01	134	58.32	4290	1.49	**FS37**	**71**	15
	25.67	126	54.54	4290	1.59	**FM37**		16
	27.08	119	51.70	4290	1.68	**FN37**		17
	31.94	101	43.83	4290	1.98	**FH37**		15
	36.54	88	38.31	4290	2.27			
	38.98	83	35.91	4290	2.41			
	44.18	73	31.69	4290	2.74			
	49.83	65	28.10	4290	3.08			
	56.68	59	24.70	4290	3.41	**FS37**	**71**	15
	71.01	47	19.71	4290	4.27	**FM37**		16
	80.83	41	17.32	4290	4.86	**FN37**		17
	85.96	39	16.29	4290	5.17	**FH37**		15
0.55	**1.04**	4323	1343	29900	0.99			
(0.74HP)	**1.23**	3658	1136	29900	1.18			
	1.39	3245	1008	29900	1.33			
	1.56	2890	897	29900	1.49	**FS97 R57**	**80**	188
	1.86	2427	754	29900	1.77	**FM97 R57**		203
	2.06	2187	679	29900	1.97	**FN97 R57**		218
	2.32	1940	603	29900	2.22	**FH97 R57**		178
	2.63	1714	532	29900	2.51			
	2.96	1521	472	29900	2.83			
	3.50	1287	400	29900	3.34			

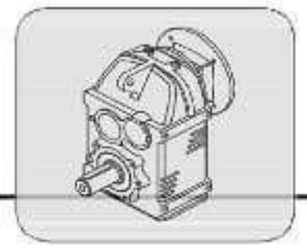


Parallel Shaft Gear Units

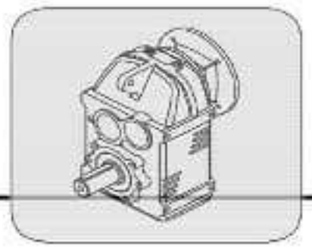
Selection Tables [kW] F..F/..M

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	3.95	1142	355	29900	3.77			
	1.46	3094	961	19800	0.97			
	1.72	2628	816	19800	1.14	**FS87 R57**		118
	1.98	2280	708	19800	1.32	**FM87 R57**		128
	2.20	2049	636	19800	1.46	**FN87 R57**	**80**	138
	2.58	1749	543	19800	1.72	**FH87 R57**		113
	2.87	1571	488	19800	1.91			
	3.80	1188	369	19800	2.53			
	2.90	1553	482	15700	0.97	**FS77 R37**		68
	3.36	1341	416	15700	1.12	**FM77 R37**	**80**	70
	3.83	1178	366	15700	1.27	**FN77 R37**		78
	4.47	1009	313	15700	1.49	**FH77 R37**		64
	5.45	827	257	10300	0.99	**FS67 R37**		44
	6.12	737	229	10300	1.11	**FM67 R37**	**80**	48
	6.88	655	203	10300	1.25	**FN67 R37**		50
	8.06	559	174	10300	1.47	**FH67 R37**		42
	8.62	556	162.37	19800	5.40	**FS87**		97
						FM87	**80**	107
						FN87		117
						FH87		92
	8.39	571	166.80	15700	2.63			
	8.74	548	160.23	15700	2.74	**FS77**		59
	9.49	505	147.56	15700	2.97	**FM77**	**80**	60
	14.91	321	93.90	15700	4.66	**FN77**		68
	16.74	286	83.63	15700	5.23	**FH77**		55
	18.66	257	75.02	15700	5.84			
	7.46	642	187.70	10300	1.28			
	9.23	519	151.68	10300	1.58			
	10.48	457	133.62	10300	1.79			
	12.78	375	109.55	10300	2.12			
	13.56	353	103.23	10300	2.24			
	15.71	305	89.11	10300	2.51	**FS67**		34
	18.10	265	77.36	10300	2.82	**FM67**	**80**	38
	19.88	241	70.42	10300	3.03	**FN67**		40
	21.56	222	64.95	10300	3.25	**FH67**		32
	24.47	196	57.22	10300	3.61			
	29.85	161	46.91	10300	4.23			
	31.67	151	44.20	10300	4.44			
	36.69	131	38.16	10300	5.01			
	42.27	113	33.12	10300	5.62			
	8.02	597	174.58	9200	1.00			
	10.05	477	139.34	9200	1.26			
	11.44	419	122.42	9200	1.43			
	12.16	394	115.11	9200	1.52			
	14.74	325	95.01	9200	1.84	**FS57**		31
	16.38	292	85.46	9200	2.05	**FM57**	**80**	27
	19.07	251	73.40	9200	2.39	**FN57**		38
	27.07	177	51.72	9200	3.38	**FH57**		31
	21.62	222	64.76	9200	2.70			
	24.61	195	56.90	9200	3.07			
	35.25	136	39.72	9200	4.32			
	41.04	117	34.11	9200	4.89			
	11.57	414	121.06	5920	0.97			
	13.35	359	104.91	5920	1.11			
	14.67	327	95.57	5920	1.22			
	16.41	292	85.41	5920	1.37			
	17.63	272	79.30	5920	1.47			
	19.66	244	71.21	5920	1.64	**FS47**		22
	20.81	230	67.43	5920	1.74	**FM47**		24



Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	23.00	208	60.83	5920	1.92	**FN47**	**80**	25
	25.01	192	55.95	5920	2.09	**FH47**		22
	27.89	172	50.24	5920	2.33			
	32.62	147	42.91	5920	2.72			
	38.80	124	36.06	5920	3.12			
	43.26	111	32.38	5920	3.33			
	45.79	105	30.66	5920	3.45			
	55.03	87	25.44	5920	3.86			
	19.86	241	70.50	4290	0.83			
	21.18	226	66.09	4290	0.88			
	24.01	200	58.32	4290	1.00			
	25.67	187	54.54	4290	1.07	**FS37**		17
	27.08	177	51.70	4290	1.13	**FM37**	**80**	18
	31.94	150	43.83	4290	1.33	**FN37**		19
	36.54	131	38.31	4290	1.52	**FH37**		17
	38.98	123	35.91	4290	1.62			
	44.18	108	31.69	4290	1.84			
	49.83	96	28.10	4290	2.07			
	56.68	87	24.70	4290	2.29			
	71.01	70	19.71	4290	2.88			
	80.83	61	17.32	4290	3.27	**FS37**		17
	85.96	57	16.29	4285	3.48	**FM37**		18
	115.79	43	12.09	3960	4.68	**FN37**	**80**	19
	134.81	37	10.39	3795	5.47	**FH37**		17
	151.08	33	9.27	3605	4.19			
	171.96	29	8.14	3480	4.54			
	246.33	20	5.68	3145	5.66			
0.75	**1.39**	4425	1008	29900	0.97			
(1HP)	**1.56**	3941	897	29900	1.09			
	1.86	3310	754	29900	1.30	**FS97 R57**		188
	2.06	2983	679	29900	1.44	**FM97 R57**		203
	2.32	2646	603	29900	1.63	**FN97 R57**	**80**	218
	2.63	2338	532	29900	1.84	**FH97 R57**		178
	2.96	2074	472	29900	2.07			
	3.50	1755	400	29900	2.45			
	3.95	1557	355	29900	2.76			
	1.98	3109	708	19800	0.96	**FS87 R57**		118
	2.20	2794	636	19800	1.07	**FM87 R57**		128
	2.58	2384	543	19800	1.26	**FN87 R57**	**80**	138
	2.87	2143	488	19800	1.40	**FH87 R57**		113
	3.80	1620	369	19800	1.85			
	3.83	1607	366	15700	0.93	**FS77 R37**		68
	4.47	1376	313	15700	1.09	**FM77 R37**	**80**	70
	4.98	1235	281	15700	1.21	**FN77 R37**		78
						FH77 R37		64
	8.23	794	170.08	29900	5.42	**FS97**		169
						FM97	**80**	184
						FN97		199
						FH97		159
	8.62	758	162.37	19800	3.96	**FS87**		97
	9.92	658	141.09	19800	4.56	**FM87**	**80**	107
	12.87	508	108.77	19800	5.92	**FN87**		117
						FH87		92
	8.39	778	166.80	15700	1.93			
	8.74	748	160.23	15700	2.01	**FS77**		59
	9.49	689	147.56	15700	2.18	**FM77**		60
	14.91	438	93.90	15700	3.42	**FN77**	**80**	68
	16.74	390	83.63	15700	3.84	**FH77**		55
	18.66	350	75.02	15700	4.29			

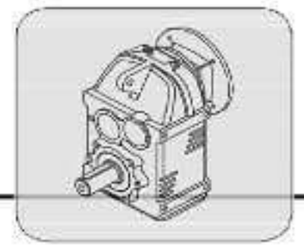


Parallel Shaft Gear Units

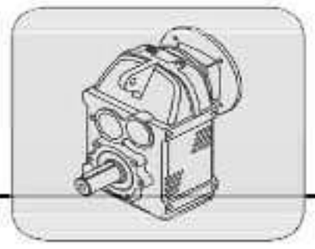
Selection Tables [kW] F..F/..M

1400 Input Rpm

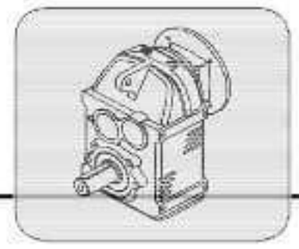
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	23.58	277	59.38	15700	5.40			
	7.46	876	187.70	10300	0.94			
	9.23	708	151.68	10300	1.16			
	10.48	624	133.62	10300	1.32			
	12.78	511	109.55	10300	1.56			
	13.56	482	103.23	10300	1.64			
	15.71	416	89.11	10300	1.84	**FS67**		34
	18.10	361	77.36	10300	2.07	**FM67**		38
	19.88	329	70.42	10300	2.22	**FN67**	**80**	40
	21.56	303	64.95	10300	2.38	**FH67**		32
	24.47	267	57.22	10300	2.65			
	29.85	219	46.91	10300	3.11			
	31.67	206	44.20	10300	3.26			
	36.69	178	38.16	10300	3.67			
	42.27	155	33.12	10300	4.12			
	46.43	141	30.15	10300	4.44			
	49.23	137	28.44	10300	4.52	**FS67**		35
						FM67	**80**	39
						FN67		41
						FH67		33
	10.05	650	139.34	9200	0.92			
	11.44	571	122.42	9200	1.05			
	12.16	537	115.11	9200	1.12			
	14.74	443	95.01	9200	1.35			
	16.38	399	85.46	9200	1.50	**FS57**		31
	19.07	343	73.40	9200	1.75	**FM57**	**80**	27
	27.07	241	51.72	9200	2.48	**FN57**		38
	21.62	302	64.76	9200	1.98	**FH57**		31
	24.61	266	56.90	9200	2.25			
	35.25	185	39.72	9200	3.17			
	41.04	159	34.11	9200	3.59			
	58.25	112	24.04	9200	4.89			
	52.91	127	26.46	9200	4.31	**FS57**		32
	60.06	112	23.31	9200	4.91	**FM57**	**80**	28
						FN57		39
						FH57		32
	13.35	490	104.91	5920	0.82			
	14.67	445	95.57	5920	0.90			
	16.41	398	85.41	5920	1.00			
	17.63	371	79.30	5920	1.08			
	19.66	332	71.21	5920	1.20			
	20.81	314	67.43	5920	1.27	**FS47**		22
	23.00	284	60.83	5920	1.41	**FM47**	**80**	24
	25.01	261	55.95	5920	1.53	**FN47**		25
	27.89	234	50.24	5920	1.71	**FH47**		22
	32.62	200	42.91	5920	2.00			
	38.80	168	36.06	5920	2.29			
	43.26	151	32.38	5920	2.44			
	45.79	143	30.66	5920	2.53			
	55.03	119	25.44	5920	2.83			
	56.55	119	24.76	5920	3.11			
	64.35	105	21.75	5920	3.54			
	68.43	98	20.45	5920	3.78	**FS47**		22
	92.05	73	15.19	5920	5.10	**FM47**		24
	107.48	63	13.04	5775	5.98	**FN47**	**80**	25
	124.41	54	11.26	5450	4.48	**FH47**		22
	141.57	48	9.89	5260	4.84			
	150.54	45	9.30	5170	5.02			
	202.52	33	6.90	4750	6.00			



Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	27.08	241	51.70	4290	0.83			
	31.94	205	43.83	4290	0.98	**FS37**		17
	36.54	179	38.31	4290	1.12	**FM37**	**80**	18
	38.98	168	35.91	4290	1.19	**FN37**		19
	44.18	148	31.69	4290	1.35	**FH37**		17
	49.83	131	28.10	4290	1.52			
	56.68	119	24.70	4290	1.68			
	71.01	95	19.71	4275	2.11			
	80.83	83	17.32	4160	2.40	**FS37**		17
	85.96	78	16.29	4105	2.55	**FM37**		18
	115.79	58	12.09	3825	3.43	**FN37**	**80**	19
	134.81	50	10.39	3680	4.01	**FH37**		17
	151.08	45	9.27	3480	3.07			
	171.96	39	8.14	3370	3.33			
	246.33	27	5.68	3070	4.15			
1.1	**2.06**	4375	679	29900	0.98			
(1.5HP)	**2.32**	3881	603	29900	1.11	**FS97 R57**		188
	2.63	3429	532	29900	1.25	**FM97 R57**	**90**	203
	2.96	3042	472	29900	1.41	**FN97 R57**		218
	3.50	2574	400	29900	1.67	**FH97 R57**		178
	3.95	2283	355	29900	1.88			
	2.87	3142	488	19800	0.95	**FS87 R57**		118
	3.80	2376	369	19800	1.26	**FM87 R57**	**90**	128
	4.37	2065	321	19800	1.45	**FN87 R57**		138
	5.67	1591	247	19800	1.89	**FH87 R57**		113
	8.23	1164	170.08	29900	3.70	**FS97**		169
	9.33	1027	149.98	29900	4.19	**FM97**		184
	10.22	937	136.95	29900	4.59	**FN97**	**90**	199
	12.79	749	109.42	29900	5.75	**FH97**		159
	12.00	799	116.67	29900	5.39			
	8.62	1111	162.37	19800	2.70			
	9.92	966	141.09	19800	3.11	**FS87**		97
	12.87	745	108.77	19800	4.03	**FM87**		107
	13.63	703	102.70	19800	4.27	**FN87**	**90**	117
	15.16	632	92.34	19800	4.75	**FH87**		92
	16.80	570	83.32	19800	5.26			
	17.80	539	78.67	19800	5.56			
	8.39	1142	166.80	15700	1.31			
	8.74	1097	160.23	15700	1.37			
	9.49	1010	147.56	15700	1.49			
	14.91	643	93.90	15700	2.33	**FS77**		59
	16.74	572	83.63	15700	2.62	**FM77**	**90**	60
	18.66	514	75.02	15700	2.92	**FN77**		68
	23.58	406	59.38	15700	3.68	**FH77**		55
	26.29	365	53.26	15700	4.11			
	28.55	336	49.04	15700	4.47			
	33.60	285	41.67	15700	5.25			
	10.48	915	133.62	10300	0.90			
	12.78	750	109.55	10300	1.06			
	13.56	707	103.23	10300	1.12			
	15.71	610	89.11	10300	1.26			
	18.10	529	77.36	10300	1.41	**FS67**		34
	19.88	482	70.42	10300	1.51	**FM67**		38
	21.56	445	64.95	10300	1.63	**FN67**	**90**	40
	24.47	392	57.22	10300	1.81	**FH67**		32
	29.85	321	46.91	10300	2.12			
	31.67	303	44.20	10300	2.22			
	36.69	261	38.16	10300	2.50			
	42.27	227	33.12	10300	2.81			



Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	46.43	206	30.15	10300	3.03			
	49.23	201	28.44	10300	3.08	**FS67**		35
	77.37	128	18.10	10300	4.86	**FM67**	**90**	39
	86.87	114	16.12	10300	5.47	**FN67**		41
						FH67		33
	14.74	650	95.01	9200	0.92			
	16.38	585	85.46	9200	1.02			
	19.07	502	73.40	9200	1.20	**FS57**		31
	27.07	354	51.72	9200	1.69	**FM57**		27
	21.62	443	64.76	9200	1.35	**FN57**	**90**	38
	24.61	389	56.90	9200	1.54	**FH57**		31
	35.25	272	39.72	9200	2.16			
	41.04	234	34.11	9200	2.45			
	58.25	165	24.04	9200	3.33			
	52.91	187	26.46	9200	2.94			
	60.06	164	23.31	9200	3.35	**FS57**		32
	73.26	135	19.11	9025	4.10	**FM57**	**90**	28
	77.74	127	18.01	8880	4.35	**FN57**		39
	90.05	110	15.55	8525	5.06	**FH57**		32
	103.74	95	13.50	8190	5.85			
	19.66	487	71.21	5920	0.82			
	20.81	460	67.43	5920	0.87			
	23.00	417	60.83	5920	0.96			
	25.01	383	55.95	5920	1.04	**FS47**		22
	27.89	344	50.24	5920	1.16	**FM47**	**90**	24
	32.62	294	42.91	5920	1.36	**FN47**		25
	38.80	247	36.06	5920	1.56	**FH47**		22
	43.26	222	32.38	5920	1.67			
	45.79	209	30.66	5920	1.72			
	55.03	174	25.44	5920	1.93			
	56.55	175	24.76	5920	2.12			
	64.35	154	21.75	5920	2.42			
	68.43	144	20.45	5920	2.58			
	92.05	107	15.19	5770	3.48	**FS47**		22
	107.48	92	13.04	5555	4.07	**FM47**		24
	124.41	79	11.26	5220	3.06	**FN47**	**90**	25
	141.57	70	9.89	5055	3.30	**FH47**		22
	150.54	66	9.30	4980	3.42			
	202.52	49	6.90	4610	4.09			
	236.45	42	5.93	4420	4.49			
	334.53	30	4.18	4005	5.56			
	38.98	246	35.91	4105	0.81	**FS37**		17
	44.18	217	31.69	4100	0.92	**FM37**	**90**	18
	49.83	192	28.10	4075	1.04	**FN37**		19
						FH37		17
	56.68	174	24.70	3990	1.15			
	71.01	139	19.71	3895	1.44			
	80.83	122	17.32	3825	1.64	**FS37**		17
	85.96	115	16.29	3790	1.74	**FM37**		18
	115.79	85	12.09	3590	2.34	**FN37**	**90**	19
	134.81	73	10.39	3480	2.73	**FH37**		17
	151.08	65	9.27	3255	2.10			
	171.96	57	8.14	3175	2.27			
	246.33	40	5.68	2935	2.83			
1.5 (2HP)	**2.63**	4675	532	29900	0.92	**FS97 R57**		188
	2.96	4148	472	29900	1.04	**FM97 R57**	**90**	203
	3.50	3510	400	29900	1.23	**FN97 R57**		218
	3.95	3113	355	29900	1.38	**FH97 R57**		178
	4.37	2816	321	19800	1.07	**FS87 R57**		118

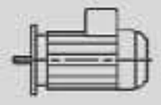


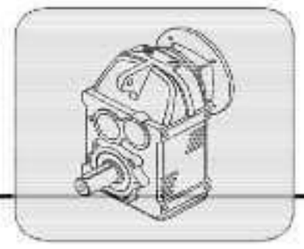
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	5.67	2170	247	19800	1.38	**FM87 R57**	**90**	128
						FN87 R57		138
						FH87 R57		113
	8.23	1588	170.08	29900	2.71			
	9.33	1400	149.98	29900	3.08			
	10.22	1278	136.95	29900	3.37	**FS97**		169
	12.79	1021	109.42	29900	4.21	**FM97**	**90**	184
	12.00	1089	116.67	29900	3.96	**FN97**		199
	14.19	921	98.66	29900	4.68	**FH97**		159
	16.02	816	87.40	29900	5.27			
	17.96	727	77.93	29900	5.81			
	8.62	1516	162.37	19800	1.98			
	9.92	1317	141.09	19800	2.28			
	12.87	1015	108.77	19800	2.96			
	13.63	959	102.70	19800	3.13	**FS87**		97
	15.16	862	92.34	19800	3.48	**FM87**		107
	16.80	778	83.32	19800	3.86	**FN87**	**90**	117
	17.80	734	78.67	19800	4.08	**FH87**		92
	19.79	660	70.73	19800	4.45			
	22.67	576	61.76	19800	4.96			
	26.18	499	53.48	19800	4.19			
	30.12	434	46.47	19800	4.78			
	8.39	1557	166.80	15700	0.96			
	8.74	1496	160.23	15700	1.00			
	9.49	1377	147.56	15700	1.09			
	14.91	876	93.90	15700	1.71	**FS77**		59
	16.74	781	83.63	15700	1.92	**FM77**		60
	18.66	700	75.02	15700	2.14	**FN77**	**90**	68
	23.58	554	59.38	15700	2.70	**FH77**		55
	26.29	497	53.26	15700	3.02			
	28.55	458	49.04	15700	3.28			
	33.60	389	41.67	15700	3.85			
	44.80	292	31.25	15700	5.14			
	13.56	964	103.23	10300	0.82			
	15.71	832	89.11	10300	0.92			
	18.10	722	77.36	10300	1.04			
	19.88	657	70.42	10300	1.11	**FS67**		34
	21.56	606	64.95	10300	1.19	**FM67**		38
	24.47	534	57.22	10300	1.32	**FN67**	**90**	40
	29.85	438	46.91	10300	1.55	**FH67**		32
	31.67	413	44.20	10300	1.63			
	36.69	356	38.16	10300	1.84			
	42.27	309	33.12	10300	2.06			
	46.43	281	30.15	10300	2.22			
	49.23	274	28.44	10300	2.26			
	77.37	174	18.10	10300	3.57	**FS67**		35
	86.87	155	16.12	10300	4.01	**FM67**	**90**	39
	96.84	139	14.46	10300	4.49	**FN67**		41
	105.18	128	13.31	10300	4.89	**FH67**		33
	123.79	109	11.31	10300	5.75			
	19.07	685	73.40	9200	0.88			
	27.07	483	51.72	9200	1.24	**FS57**		31
	21.62	604	64.76	9200	0.99	**FM57**		27
	24.61	531	56.90	9200	1.13	**FN57**	**90**	38
	35.25	371	39.72	9200	1.58	**FH57**		31
	41.04	318	34.11	9200	1.79			
	58.25	224	24.04	9200	2.44			
	52.91	255	26.46	9200	2.15			
	60.06	224	23.31	9150	2.46			

Parallel Shaft Gear Units

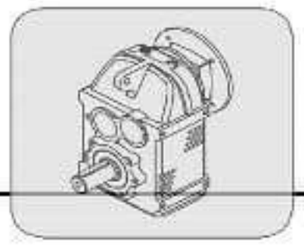
Selection Tables [kW] F..F/..M

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	73.26	184	19.11	8725	3.00	**FS57**		32
	77.74	173	18.01	8595	3.19	**FM57**		28
	90.05	150	15.55	8280	3.71	**FN57**	**90**	39
	103.74	130	13.50	7975	4.29	**FH57**		32
	113.95	118	12.29	7780	4.71			
	123.30	109	11.35	7510	5.50			
	27.89	469	50.24	5920	0.85			
	32.62	401	42.91	5920	1.00	**FS47**		22
	38.80	337	36.06	5670	1.14	**FM47**		24
	43.26	302	32.38	5680	1.22	**FN47**	**90**	25
	45.79	285	30.66	5675	1.26	**FH47**		22
	55.03	237	25.44	5620	1.42			
	56.55	238	24.76	5920	1.55			
	64.35	209	21.75	5835	1.77			
	68.43	197	20.45	5780	1.89			
	92.05	146	15.19	5475	2.55	**FS47**		22
	107.48	125	13.04	5305	2.99	**FM47**		24
	124.41	108	11.26	4950	2.24	**FN47**	**90**	25
	141.57	95	9.89	4825	2.42	**FH47**		22
	150.54	89	9.30	4760	2.51			
	202.52	67	6.90	4445	3.00			
	236.45	57	5.93	4280	3.30			
	334.53	40	4.18	3910	4.08			
	56.68	238	24.70	3445	0.84			
	71.01	190	19.71	3460	1.05			
	80.83	167	17.32	3445	1.20	**FS37**		17
	85.96	157	16.29	3430	1.28	**FM37**		18
	115.79	116	12.09	3325	1.72	**FN37**	**90**	19
	134.81	100	10.39	3255	2.00	**FH37**		17
	151.08	89	9.27	3000	1.54			
	171.96	78	8.14	2950	1.67			
	246.33	55	5.68	2775	2.07			
2.2 (3HP)	**4.96**	3637	282	29900	1.18	**FS97 R57**		191
	5.57	3239	251	29900	1.33	**FM97 R57**	**100**	206
						FN97 R57		221
						FH97 R57		181
	8.23	2328	170.08	29900	1.85			
	9.33	2053	149.98	29900	2.10			
	10.22	1875	136.95	29900	2.30			
	12.79	1498	109.42	29900	2.87	**FS97**		172
	12.00	1597	116.67	29900	2.70	**FM97**		187
	14.19	1351	98.66	29900	3.19	**FN97**	**100**	202
	16.02	1196	87.40	29900	3.59	**FH97**		162
	17.96	1067	77.93	29900	3.96			
	21.70	883	64.52	29900	4.61			
	24.50	782	57.15	29900	5.08			
	27.47	698	50.96	29900	5.59			
	8.62	2223	162.37	19800	1.35			
	9.92	1931	141.09	19800	1.55			
	12.87	1489	108.77	19800	2.02			
	13.63	1406	102.70	19800	2.13			
	15.16	1264	92.34	19800	2.37	**FS87**		100
	16.80	1141	83.32	19800	2.63	**FM87**	**100**	110
	17.80	1077	78.67	19800	2.78	**FN87**		120
	19.79	968	70.73	19800	3.03	**FH87**		95
	22.67	845	61.76	19800	3.38			
	26.18	732	53.48	19800	2.86			
	30.12	636	46.47	19800	3.26			
	39.08	490	35.83	19800	4.26			



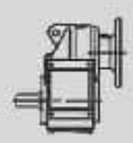
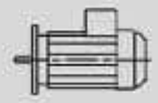
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	14.91	1286	93.90	15700	1.17			
	16.74	1145	83.63	15700	1.31			
	18.66	1027	75.02	15700	1.46	**FS77**		62
	23.58	813	59.38	15700	1.84	**FM77**	**100**	63
	26.29	729	53.26	15700	2.06	**FN77**		71
	28.55	671	49.04	15700	2.24	**FH77**		58
	33.60	570	41.67	15700	2.62			
	44.80	428	31.25	15700	3.51			
	56.62	349	24.73	15700	4.30	**FS77**		63
	65.16	303	21.49	15700	4.95	**FM77**	**100**	65
						FN77		73
						FH77		59
	21.56	889	64.95	10300	0.81			
	24.47	783	57.22	10300	0.90	**FS67**		37
	29.85	642	46.91	10300	1.06	**FM67**		41
	31.67	605	44.20	10300	1.11	**FN67**	**100**	43
	36.69	522	38.16	10300	1.25	**FH67**		35
	42.27	453	33.12	10300	1.40			
	46.43	413	30.15	10300	1.51			
	49.23	401	28.44	10300	1.54			
	77.37	255	18.10	10300	2.43			
	86.87	227	16.12	10300	2.73	**FS67**		38
	96.84	204	14.46	10300	3.06	**FM67**	**100**	42
	105.18	188	13.31	10300	3.33	**FN67**		44
	123.79	160	11.31	10300	3.92	**FH67**		36
	165.05	120	8.48	10300	5.28			
	211.32	93	6.63	9695	5.80			
	27.07	708	51.72	9200	0.85	**FS57**		34
	35.25	544	39.72	9200	1.08	**FM57**	**100**	30
	41.04	467	34.11	9080	1.22	**FN57**		41
	58.25	329	24.04	8610	1.67	**FH57**		34
	52.91	373	26.46	8685	1.47			
	60.06	329	23.31	8505	1.68			
	73.26	270	19.11	8195	2.05			
	77.74	254	18.01	8095	2.18			
	90.05	219	15.55	7850	2.53	**FS57**		35
	103.74	190	13.50	7605	2.92	**FM57**		31
	113.95	173	12.29	7440	3.21	**FN57**	**100**	42
	123.30	160	11.35	7145	3.75	**FH57**		35
	150.40	131	9.31	6820	4.19			
	159.61	124	8.77	6725	4.38			
	184.89	107	7.57	6480	4.79			
	212.98	93	6.57	6245	5.23			
	233.95	84	5.98	6095	5.54			
	43.26	443	32.38	4380	0.83	**FS47**		24
	45.79	419	30.66	4445	0.86	**FM47**	**100**	26
	55.03	348	25.44	4600	0.97	**FN47**		27
						FH47		24
	56.55	349	24.76	5110	1.06			
	64.35	307	21.75	5100	1.21			
	68.43	289	20.45	5090	1.29			
	92.05	215	15.19	4960	1.74	**FS47**		24
	107.48	184	13.04	4865	2.04	**FM47**		26
	124.41	159	11.26	4485	1.53	**FN47**	**100**	27
	141.57	140	9.89	4415	1.65	**FH47**		24
	150.54	131	9.30	4375	1.71			
	202.52	98	6.90	4160	2.05			
	236.45	84	5.93	4035	2.25			
	334.53	59	4.18	3735	2.78			

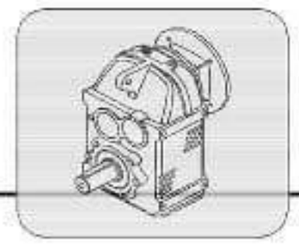


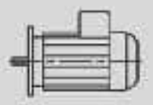
Parallel Shaft Gear Units

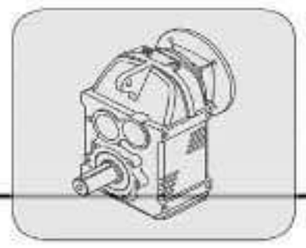
Selection Tables [kW] F..F/..M

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	80.83	244	17.32	2775	0.82			
	85.96	230	16.29	2805	0.87	**FS37**		19
	115.79	171	12.09	2860	1.17	**FM37**		20
	134.81	147	10.39	2850	1.37	**FN37**	**100**	21
	151.08	131	9.27	2555	1.05	**FH37**		19
	171.96	115	8.14	2560	1.14			
	246.33	80	5.68	2505	1.41			
3	**8.23**	3175	170.08	29900	1.36			
(4HP)	**9.33**	2800	149.98	29900	1.54			
	10.22	2557	136.95	29900	1.68			
	12.79	2043	109.42	29900	2.11			
	12.00	2178	116.67	29900	1.98	**FS97**		172
	14.19	1842	98.66	29900	2.34	**FM97**		187
	16.02	1631	87.40	29900	2.64	**FN97**	**100**	202
	17.96	1455	77.93	29900	2.90	**FH97**		162
	21.70	1204	64.52	29900	3.38			
	24.50	1067	57.15	29900	3.73			
	27.47	951	50.96	29900	4.10			
	30.64	853	45.69	29900	4.48			
	41.54	629	33.70	29900	5.73			
	43.23	623	32.38	29900	5.76	**FS97**		177
						FM97	**100**	192
						FN97		207
						FH97		167
	8.62	3031	162.37	19800	0.99			
	9.92	2634	141.09	19800	1.14			
	12.87	2030	108.77	19800	1.48			
	13.63	1917	102.70	19800	1.56			
	15.16	1724	92.34	19800	1.74			
	16.80	1555	83.32	19800	1.93	**FS87**		100
	17.80	1469	78.67	19800	2.04	**FM87**	**100**	110
	19.79	1320	70.73	19800	2.23	**FN87**		120
	22.67	1153	61.76	19800	2.48	**FH87**		95
	26.18	998	53.48	19800	2.09			
	30.12	868	46.47	19800	2.39			
	39.08	669	35.83	19800	3.12			
	56.03	466	24.98	19800	4.50			
	71.39	366	19.61	19800	5.77			
	43.46	620	32.21	19800	4.10	**FS87**		105
	49.28	547	28.41	19800	4.54	**FM87**	**100**	115
	53.97	499	25.94	19800	4.90	**FN87**		125
	63.36	425	22.10	19800	5.69	**FH87**		100
	14.91	1753	93.90	15700	0.85			
	16.74	1561	83.63	15700	0.96			
	18.66	1400	75.02	15700	1.07	**FS77**		62
	23.58	1108	59.38	15700	1.35	**FM77**	**100**	63
	26.29	994	53.26	15700	1.51	**FN77**		71
	28.55	915	49.04	15700	1.64	**FH77**		58
	33.60	778	41.67	15700	1.92			
	44.80	583	31.25	15700	2.57			
	56.62	476	24.73	15700	3.15	**FS77**		63
	65.16	414	21.49	15700	3.63	**FM77**		65
	84.52	319	16.56	15700	4.71	**FN77**	**100**	73
	89.51	301	15.64	15700	4.98	**FH77**		59
	99.56	271	14.06	15700	5.54			
	31.67	825	44.20	10300	0.81	**FS67**		37
	36.69	712	38.16	10300	0.92	**FM67**	**100**	41
	42.27	618	33.12	10300	1.03	**FN67**		43
	46.43	563	30.15	10300	1.11	**FH67**		35



Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs				m [kg]
	49.23	547	28.44	10300	1.13				
	77.37	348	18.10	10300	1.78				
	86.87	310	16.12	10300	2.00				
	96.84	278	14.46	10300	2.24	**FS67**			38
	105.18	256	13.31	10300	2.44	**FM67**	**100**		42
	123.79	218	11.31	10300	2.88	**FN67**			44
	165.05	163	8.48	10300	3.87	**FH67**			36
	211.32	127	6.63	9580	4.25				
	235.58	114	5.94	9305	4.59				
	255.86	105	5.47	9095	4.87				
	41.04	637	34.11	8035	0.90	**FS57**			34
	58.25	449	24.04	7875	1.22	**FM57**	**100**		30
						FN57			41
						FH57			34
	52.91	509	26.46	7850	1.08				
	60.06	449	23.31	7765	1.23				
	73.26	368	19.11	7590	1.50				
	77.74	347	18.01	7530	1.60				
	90.05	299	15.55	7360	1.85	**FS57**			35
	103.74	260	13.50	7175	2.14	**FM57**			31
	113.95	236	12.29	7050	2.35	**FN57**	**100**		42
	123.30	219	11.35	6735	2.75	**FH57**			35
	150.40	179	9.31	6480	3.07				
	159.61	169	8.77	6405	3.21				
	184.89	146	7.57	6205	3.51				
	212.98	127	6.57	6005	3.84				
	233.95	115	5.98	5875	4.06				
	64.35	419	21.75	4260	0.89				
	68.43	394	20.45	4300	0.94				
	92.05	293	15.19	4375	1.28				
	107.48	251	13.04	4360	1.49	**FS47**			24
	124.41	217	11.26	3955	1.12	**FM47**	**100**		26
	141.57	190	9.89	3945	1.21	**FN47**			27
	150.54	179	9.30	3935	1.26	**FH47**			24
	202.52	133	6.90	3830	1.50				
	236.45	114	5.93	3755	1.65				
	334.53	81	4.18	3535	2.04				
	115.79	233	12.09	2325	0.86	**FS37**			19
	134.81	200	10.39	2395	1.00	**FM37**	**100**		20
	171.96	157	8.14	2110	0.83	**FN37**			21
	246.33	109	5.68	2190	1.04	**FH37**			19
4	**8.23**	4233	170.08	29900	1.02				
(5.4HP)	**9.33**	3733	149.98	29900	1.15				
	10.22	3409	136.95	29900	1.26				
	12.79	2724	109.42	29900	1.58				
	12.00	2904	116.67	29900	1.48	**FS97**			172
	14.19	2456	98.66	29900	1.75	**FM97**			187
	16.02	2175	87.40	29900	1.98	**FN97**	**112**		202
	17.96	1940	77.93	29900	2.18	**FH97**			162
	21.70	1606	64.52	29900	2.54				
	24.50	1422	57.15	29900	2.79				
	27.47	1268	50.96	29900	3.07				
	30.64	1137	45.69	29900	3.36				
	41.54	839	33.70	29900	4.30				
	43.23	831	32.38	29900	4.32	**FS97**			177
	48.47	741	28.88	29515	4.74	**FM97**	**112**		192
	61.61	583	22.72	27800	5.77	**FN97**			207
						FH97			167
	9.92	3512	141.09	19800	0.85				

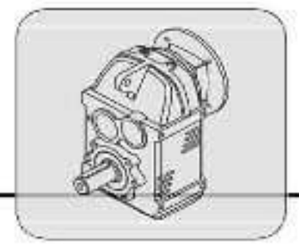


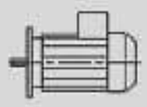
Parallel Shaft Gear Units

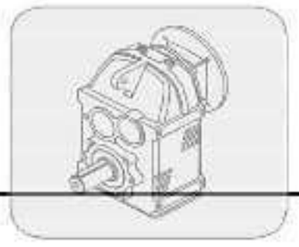
Selection Tables [kW] F..F/..M

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	12.87	2707	108.77	19800	1.11			
	13.63	2556	102.70	19800	1.17			
	15.16	2298	92.34	19800	1.31			
	16.80	2074	83.32	19800	1.45	**FS87**		100
	17.80	1958	78.67	19800	1.53	**FM87**		110
	19.79	1761	70.73	19800	1.67	**FN87**	**112**	120
	22.67	1537	61.76	19800	1.86	**FH87**		95
	26.18	1331	53.48	19800	1.57			
	30.12	1157	46.47	19800	1.79			
	39.08	892	35.83	19800	2.34			
	56.03	622	24.98	19800	3.38			
	71.39	488	19.61	19800	4.33			
	43.46	827	32.21	19800	3.08			
	49.28	729	28.41	19800	3.41	**FS87**		105
	53.97	666	25.94	19800	3.67	**FM87**		115
	63.36	567	22.10	19800	4.27	**FN87**	**112**	125
	67.55	532	20.73	19800	4.55	**FH87**		100
	74.92	480	18.69	19800	5.06			
	84.58	425	16.55	19325	5.72			
	18.66	1867	75.02	15700	0.80			
	23.58	1478	59.38	15700	1.01	**FS77**		62
	26.29	1326	53.26	15700	1.13	**FM77**	**112**	63
	28.55	1221	49.04	15700	1.23	**FN77**		71
	33.60	1037	41.67	15700	1.44	**FH77**		58
	44.80	778	31.25	15700	1.93			
	56.62	635	24.73	15700	2.36			
	65.16	551	21.49	15700	2.72	**FS77**		63
	84.52	425	16.56	15700	3.53	**FM77**	**112**	65
	89.51	401	15.64	15700	3.74	**FN77**		73
	99.56	361	14.06	15700	4.16	**FH77**		59
	114.03	315	12.28	15700	4.75			
	46.43	751	30.15	10300	0.83	**FS67**		37
						FM67	**112**	41
						FN67		43
						FH67		35
	49.23	730	28.44	10300	0.85			
	77.37	464	18.10	10300	1.34			
	86.87	414	16.12	10300	1.50			
	96.84	371	14.46	10300	1.68	**FS67**		38
	105.18	342	13.31	10300	1.83	**FM67**	**112**	42
	123.79	290	11.31	10300	2.16	**FN67**		44
	165.05	218	8.48	10195	2.90	**FH67**		36
	211.32	170	6.63	9440	3.19			
	235.58	152	5.94	9180	3.45			
	255.86	140	5.47	8980	3.65			
	58.25	598	24.04	6955	0.92	**FS57**		34
						FM57	**112**	30
						FN57		41
						FH57		34
	52.91	679	26.46	6805	0.81			
	60.06	598	23.31	6845	0.92			
	73.26	490	19.11	6835	1.13			
	77.74	462	18.01	6815	1.20			
	90.05	399	15.55	6745	1.39	**FS57**		35
	103.74	346	13.50	6645	1.61	**FM57**		31
	113.95	315	12.29	6565	1.77	**FN57**	**112**	42
	123.30	291	11.35	6215	2.06	**FH57**		35
	150.40	239	9.31	6060	2.30			
	159.61	225	8.77	6005	2.41			



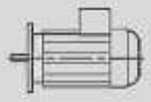
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	184.89	194	7.57	5860	2.64			
	212.98	169	6.57	5705	2.88			
	233.95	154	5.98	5600	3.05			
5.5	**9.33**	5133	149.98	29900	0.84			
(7.4HP)	**10.22**	4687	136.95	29900	0.92			
	12.79	3745	109.42	29900	1.15			
	12.00	3993	116.67	29900	1.08			
	14.19	3377	98.66	29900	1.28	**FS97**		177
	16.02	2991	87.40	29900	1.44	**FM97**	**132S**	192
	17.96	2667	77.93	29900	1.58	**FN97**		207
	21.70	2208	64.52	29900	1.84	**FH97**		167
	24.50	1956	57.15	29900	2.03			
	27.47	1744	50.96	29900	2.23			
	30.64	1564	45.69	29900	2.44			
	41.54	1153	33.70	29745	3.12			
	43.23	1143	32.38	29385	3.14	**FS97**		182
	48.47	1019	28.88	28655	3.45	**FM97**	**132S**	197
	61.61	802	22.72	27120	4.20	**FN97**		212
	80.09	617	17.48	25450	5.43	**FH97**		172
	12.87	3723	108.77	19800	0.81			
	13.63	3515	102.70	19800	0.85			
	15.16	3160	92.34	19800	0.95			
	16.80	2852	83.32	19800	1.05			
	17.80	2693	78.67	19800	1.11	**FS87**		106
	19.79	2421	70.73	19800	1.21	**FM87**	**132S**	116
	22.67	2114	61.76	19800	1.35	**FN87**		126
	26.18	1830	53.48	19800	1.14	**FH87**		101
	30.12	1591	46.47	19800	1.30			
	39.08	1226	35.83	19800	1.70			
	56.03	855	24.98	19800	2.46			
	71.39	671	19.61	19050	3.15			
	43.46	1137	32.21	19800	2.24			
	49.28	1002	28.41	19800	2.48			
	53.97	915	25.94	19800	2.67	**FS87**		111
	63.36	780	22.10	19800	3.10	**FM87**		121
	67.55	731	20.73	19675	3.31	**FN87**	**132S**	131
	74.92	659	18.69	19255	3.68	**FH87**		106
	84.58	584	16.55	18750	4.16			
	94.85	521	14.76	18270	4.69			
	105.80	467	13.23	17820	5.24			
	26.29	1823	53.26	15700	0.82	**FS77**		68
	28.55	1678	49.04	15700	0.89	**FM77**	**132S**	69
	33.60	1426	41.67	15700	1.05	**FN77**		77
	44.80	1070	31.25	15700	1.40	**FH77**		64
	56.62	872	24.73	15700	1.72			
	65.16	758	21.49	15700	1.98			
	84.52	584	16.56	15700	2.57	**FS77**		69
	89.51	552	15.64	15700	2.72	**FM77**		71
	99.56	496	14.06	15700	3.02	**FN77**	**132S**	79
	114.03	433	12.28	15700	3.46	**FH77**		65
	154.41	320	9.07	15700	4.69			
	178.71	276	7.83	15700	4.46			
	189.27	261	7.40	15480	4.62			
	77.37	638	18.10	10300	0.97			
	86.87	569	16.12	10300	1.09			
	96.84	510	14.46	10300	1.22	**FS67**		44
	105.18	470	13.31	10300	1.33	**FM67**		48
	123.79	399	11.31	10300	1.57	**FN67**	**132S**	50
	165.05	299	8.48	9980	2.11	**FH67**		42

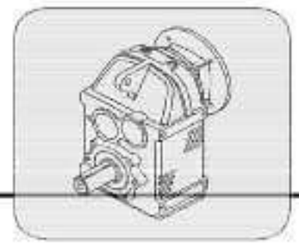


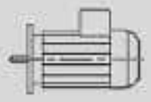
Parallel Shaft Gear Units

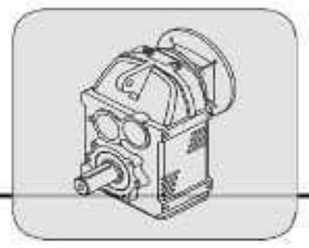
Selection Tables [kW] F..F/..M

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	211.32	234	6.63	9230	2.32			
	235.58	210	5.94	8990	2.51			
	255.86	193	5.47	8805	2.66			
	73.26	674	19.11	5705	0.82			
	77.74	635	18.01	5750	0.87			
	90.05	549	15.55	5820	1.01			
	103.74	476	13.50	5845	1.17	**FS57**		41
	113.95	433	12.29	5835	1.28	**FM57**		37
	123.30	401	11.35	5440	1.50	**FN57**	**132S**	48
	150.40	328	9.31	5420	1.68	**FH57**		41
	159.61	309	8.77	5405	1.75			
	184.89	267	7.57	5340	1.92			
	212.98	232	6.57	5260	2.09			
	233.95	211	5.98	5195	2.22			
7.5 (10HP)	**12.79**	5107	109.42	29900	0.84			
	12.00	5445	116.67	29900	0.79			
	14.19	4605	98.66	29900	0.94			
	16.02	4079	87.40	29900	1.05	**FS97**		177
	17.96	3637	77.93	29900	1.16	**FM97**	**132M**	192
	21.70	3011	64.52	29900	1.35	**FN97**		207
	24.50	2667	57.15	29900	1.49	**FH97**		167
	27.47	2378	50.96	29900	1.64			
	30.64	2132	45.69	29900	1.79			
	41.54	1573	33.70	28450	2.29			
	43.23	1558	32.38	28100	2.30			
	48.47	1390	28.88	27510	2.53	**FS97**		182
	61.61	1093	22.72	26215	3.08	**FM97**		197
	80.09	841	17.48	24755	3.98	**FN97**	**132M**	212
	101.02	667	13.86	23460	5.06	**FH97**		172
	108.10	623	12.95	22690	3.74			
	121.19	556	11.55	22095	5.25			
	17.80	3672	78.67	19800	0.82			
	19.79	3301	70.73	19800	0.89			
	22.67	2882	61.76	19800	0.99	**FS87**		106
	26.18	2496	53.48	18910	0.84	**FM87**	**132M**	116
	30.12	2169	46.47	19095	0.96	**FN87**		126
	39.08	1672	35.83	19095	1.25	**FH87**		101
	56.03	1166	24.98	18575	1.80			
	71.39	915	19.61	18000	2.31			
	43.46	1550	32.21	19800	1.64			
	49.28	1367	28.41	19605	1.82			
	53.97	1248	25.94	19375	1.96			
	63.36	1063	22.10	18920	2.28	**FS87**		111
	67.55	997	20.73	18720	2.43	**FM87**		121
	74.92	899	18.69	18395	2.70	**FN87**	**132M**	131
	84.58	796	16.55	17985	3.05	**FH87**		106
	94.85	710	14.76	17595	3.44			
	105.80	637	13.23	17210	3.84			
	143.41	470	9.76	16105	5.24			
	174.23	387	8.04	15125	5.72			
	44.80	1458	31.25	15700	1.03	**FS77**		68
						FM77	**132M**	69
						FN77		77
						FH77		64
	56.62	1190	24.73	15700	1.26			
	65.16	1034	21.49	15700	1.45			
	84.52	797	16.56	15700	1.88			
	89.51	752	15.64	15700	1.99	**FS77**	**132M**	69
	99.56	677	14.06	15700	2.22	**FM77**		71



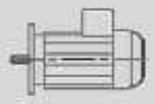
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	114.03	591	12.28	15700	2.53	**FN77**	**132M**	79
	154.41	436	9.07	15700	3.44	**FH77**		65
	178.71	377	7.83	15225	3.27			
	189.27	356	7.40	15035	3.39			
	241.10	279	5.81	14225	4.81			
9.2	**16.02**	5003	87.40	28865	0.86			
(12.4HP)	**17.96**	4461	77.93	29040	0.95	**FS97**		177
	21.70	3694	64.52	29055	1.10	**FM97**		192
	24.50	3272	57.15	28915	1.21	**FN97**	**132M**	207
	27.47	2917	50.96	28690	1.34	**FH97**		167
	30.64	2616	45.69	28410	1.46			
	41.54	1929	33.70	27350	1.87			
	43.23	1911	32.38	27010	1.88			
	48.47	1705	28.88	26535	2.06			
	61.61	1341	22.72	25450	2.51	**FS97**		182
	80.09	1032	17.48	24170	3.24	**FM97**		197
	101.02	818	13.86	22985	4.12	**FN97**	**132M**	212
	108.10	764	12.95	22160	3.05	**FH97**		172
	121.19	682	11.55	21625	4.28			
	154.04	536	9.09	20490	5.06			
	200.25	413	6.99	19250	4.96			
	22.67	3536	61.76	18250	0.81	**FS87**		106
	39.08	2051	35.83	17465	1.02	**FM87**		116
	56.03	1430	24.98	17440	1.47	**FN87**	**132M**	126
	71.39	1123	19.61	17110	1.88	**FH87**		101
	43.46	1901	32.21	18630	1.34			
	49.28	1677	28.41	18495	1.48			
	53.97	1531	25.94	18360	1.60			
	63.36	1304	22.10	18055	1.86			
	67.55	1223	20.73	17910	1.98	**FS87**		111
	74.92	1103	18.69	17660	2.20	**FM87**		121
	84.58	977	16.55	17340	2.49	**FN87**	**132M**	131
	94.85	871	14.76	17015	2.80	**FH87**		106
	105.80	781	13.23	16690	3.13			
	143.41	576	9.76	15725	4.27			
	174.23	474	8.04	14745	4.66			
	196.70	420	7.12	14380	5.13			
	220.59	375	6.35	14030	5.57			
	44.80	1789	31.25	15700	0.84	**FS77**		68
						FM77		69
						FN77	**132M**	77
						FH77		64
	56.62	1459	24.73	15700	1.03			
	65.16	1268	21.49	15700	1.18			
	84.52	978	16.56	15700	1.54			
	89.51	923	15.64	15700	1.62	**FS77**		69
	99.56	830	14.06	15700	1.81	**FM77**		71
	114.03	725	12.28	15700	2.07	**FN77**	**132M**	79
	154.41	535	9.07	15650	2.80	**FH77**		65
	178.71	462	7.83	14820	2.66			
	189.27	437	7.40	14650	2.76			
	241.10	343	5.81	13925	3.92			
11	**17.96**	5334	77.93	26345	0.79			
(15HP)	**21.70**	4416	64.52	26820	0.92	**FS97**		188
	24.50	3912	57.15	26935	1.02	**FM97**		203
	27.47	3488	50.96	26930	1.12	**FN97**	**160M**	218
	30.64	3127	45.69	26825	1.22	**FH97**		178
	41.54	2307	33.70	26180	1.56			
	43.23	2285	32.38	25850	1.57			

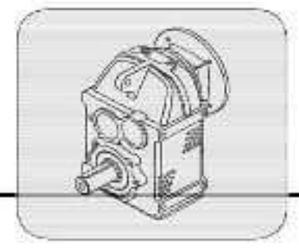


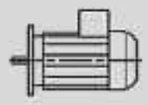
Parallel Shaft Gear Units

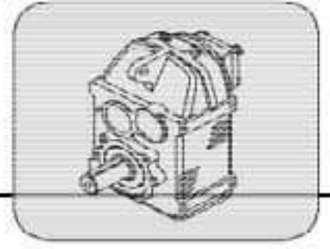
Selection Tables [kW] F..F/..M

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs	 		m [kg]
	48.47	2038	28.88	25505	1.73			
	61.61	1604	22.72	24640	2.10			
	80.09	1234	17.48	23545	2.71	**FS97**		193
	101.02	978	13.86	22495	3.45	**FM97**	**160M**	208
	108.10	914	12.95	21605	2.55	**FN97**		223
	121.19	815	11.55	21135	3.58	**FH97**		183
	154.04	641	9.09	20100	4.24			
	200.25	493	6.99	18950	4.15			
	252.59	391	5.54	17930	5.99			
	39.08	2452	35.83	15740	0.85	**FS87**		117
	56.03	1710	24.98	16235	1.23	**FM87**	**160M**	127
	71.39	1342	19.61	16165	1.57	**FN87**		137
						FH87		112
	43.46	2273	32.21	17295	1.12			
	49.28	2005	28.41	17315	1.24			
	53.97	1830	25.94	17280	1.34			
	63.36	1559	22.10	17135	1.55			
	67.55	1462	20.73	17050	1.65			
	74.92	1319	18.69	16885	1.84	**FS87**		122
	84.58	1168	16.55	16655	2.08	**FM87**	**160M**	132
	94.85	1042	14.76	16405	2.34	**FN87**		142
	105.80	934	13.23	16140	2.62	**FH87**		117
	143.41	689	9.76	15320	3.57			
	174.23	567	8.04	14345	3.90			
	196.70	502	7.12	14025	4.29			
	220.59	448	6.35	13715	4.66			
	246.05	402	5.69	13405	5.03			
	56.62	1745	24.73	15700	0.86			
	65.16	1516	21.49	15700	0.99			
	84.52	1169	16.56	15700	1.28			
	89.51	1104	15.64	15700	1.36	**FS77**		80
	99.56	992	14.06	15700	1.51	**FM77**	**160M**	82
	114.03	866	12.28	15700	1.73	**FN77**		90
	154.41	640	9.07	15230	2.34	**FH77**		76
	178.71	553	7.83	14390	2.23			
	189.27	522	7.40	14245	2.31			
	241.10	410	5.81	13605	3.28			
15 (20HP)	**27.47**	4757	50.96	23000	0.82	**FS97**		188
	30.64	4264	45.69	23310	0.90	**FM97**	**160L**	203
	41.54	3146	33.70	23585	1.15	**FN97**		218
						FH97		178
	43.23	3116	32.38	23280	1.15			
	48.47	2779	28.88	23215	1.27			
	61.61	2187	22.72	22835	1.54			
	80.09	1682	17.48	22160	1.99	**FS97**		193
	101.02	1334	13.86	21395	2.53	**FM97**	**160L**	208
	108.10	1246	12.95	20370	1.87	**FN97**		223
	121.19	1112	11.55	20030	2.63	**FH97**		183
	154.04	875	9.09	19235	3.11			
	200.25	673	6.99	18280	3.04			
	252.59	533	5.54	17405	4.39			
	56.03	2332	24.98	13565	0.90	**FS87**		117
	71.39	1830	19.61	14065	1.15	**FM87**	**160L**	127
						FN87		137
						FH87		112
	43.46	3100	32.21	14325	0.82			
	49.28	2734	28.41	14700	0.91			
	53.97	2496	25.94	14895	0.98			
	63.36	2126	22.10	15100	1.14			



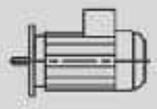
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	67.55	1994	20.73	15140	1.21			
	74.92	1798	18.69	15165	1.35	**FS87**		122
	84.58	1593	16.55	15130	1.53	**FM87**		132
	94.85	1420	14.76	15045	1.72	**FN87**	**160L**	142
	105.80	1273	13.23	14925	1.92	**FH87**		117
	143.41	939	9.76	14420	2.62			
	174.23	773	8.04	13460	2.86			
	196.70	685	7.12	13240	3.15			
	220.59	611	6.35	13015	3.42			
	246.05	548	5.69	12780	3.69			
	333.53	404	4.20	12080	4.54			
18.5 (25HP)	**41.54**	3880	33.70	21315	0.93	**FS97**		197
						FM97	**180M**	212
						FN97		227
						FH97		187
	43.23	3843	32.38	21030	0.93			
	48.47	3428	28.88	21205	1.03			
	61.61	2697	22.72	21255	1.25			
	80.09	2075	17.48	20945	1.61	**FS97**		202
	101.02	1645	13.86	20430	2.05	**FM97**	**180M**	217
	108.10	1537	12.95	19290	1.52	**FN97**		232
	121.19	1371	11.55	19065	2.13	**FH97**		192
	154.04	1079	9.09	18475	2.52			
	200.25	830	6.99	17700	2.47			
	252.59	658	5.54	16940	3.56			
	71.39	2258	19.61	12230	0.94	**FS87**		126
						FM87	**180M**	136
						FN87		146
						FH87		121
	53.97	3078	25.94	12800	0.79			
	63.36	2622	22.10	13320	0.92			
	67.55	2460	20.73	13470	0.98			
	74.92	2218	18.69	13655	1.09			
	84.58	1964	16.55	13795	1.24	**FS87**		131
	94.85	1752	14.76	13855	1.39	**FM87**		141
	105.80	1570	13.23	13855	1.56	**FN87**	**180M**	151
	143.41	1159	9.76	13635	2.13	**FH87**		126
	174.23	954	8.04	12685	2.32			
	196.70	845	7.12	12555	2.55			
	220.59	753	6.35	12400	2.77			
	246.05	675	5.69	12230	2.99			
	333.53	498	4.20	11670	3.68			
22 (30HP)	**48.47**	4076	28.88	19200	0.86			
	61.61	3207	22.72	19680	1.05			
	80.09	2467	17.48	19730	1.36	**FS97**		202
	101.02	1956	13.86	19470	1.72	**FM97**		217
	108.10	1828	12.95	18210	1.28	**FN97**	**180L**	232
	121.19	1630	11.55	18100	1.79	**FH97**		192
	154.04	1283	9.09	17715	2.12			
	200.25	987	6.99	17115	2.08			
	252.59	782	5.54	16475	3.00			
	67.55	2925	20.73	11800	0.83			
	74.92	2637	18.69	12150	0.92			
	84.58	2336	16.55	12455	1.04			
	94.85	2083	14.76	12665	1.17	**FS87**		131
	105.80	1868	13.23	12790	1.31	**FM87**		141
	143.41	1378	9.76	12845	1.79	**FN87**	**180L**	151
	174.23	1134	8.04	11910	1.95	**FH87**		126
	196.70	1005	7.12	11865	2.15			

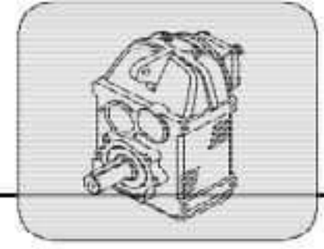


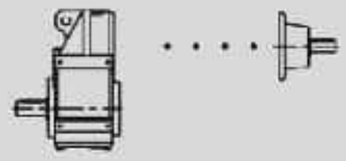
Parallel Shaft Gear Units

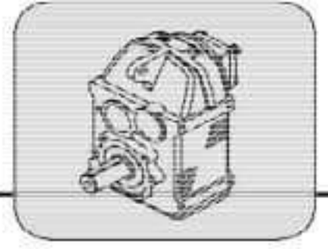
Selection Tables [kW] F..F/..M

1400 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	220.59	896	6.35	11790	2.33			
	246.05	803	5.69	11680	2.52			
	333.53	592	4.20	11270	3.10			
30	**80.09**	3364	17.48	16955	0.99			
(40HP)	**101.02**	2667	13.86	17270	1.26	**FS97**		205
	108.10	2492	12.95	15740	0.94	**FM97**		220
	121.19	2223	11.55	15895	1.31	**FN97**	**200L**	235
	154.04	1749	9.09	15985	1.55	**FH97**		195
	200.25	1345	6.99	15780	1.52			
	252.59	1067	5.54	15415	2.20			



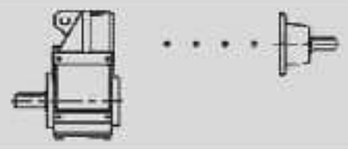
i	na [1/min]	Ma max [Nm]	Pe [kW]	FRa [N]	FRe [N]			m [kg]
F37								**200Nm**
128.51	11	200	0.25	4290	640			
117.88	12	200	0.27	4290	650			
100.36	14	200	0.32	4290	640			
80.65	17	200	0.40	4290	630	**FSS37**		14
70.50	20	200	0.46	4290	610	**FMS37**	**Ø16**	15
66.09	21	200	0.49	4290	610	**FNS37**		16
58.32	24	200	0.55	4290	590	**FHS37**		14
54.54	26	200	0.59	4290	460			
51.70	27	200	0.62	4290	580			
43.83	32	200	0.73	4290	450			
38.31	37	200	0.84	4290	710	**FSS37**		14
35.91	39	200	0.89	4290	700	**FMS37**	**Ø19**	15
31.69	44	200	1.01	4290	690	**FNS37**		16
28.10	50	200	1.14	4070	680	**FHS37**		14
24.70	57	200	1.26	3820	420			
19.71	71	200	1.58	3425	480			
17.32	81	200	1.80	3210	460	**FSS37**		14
16.29	86	200	1.91	3110	450	**FMS37**		15
12.09	116	200	2.57	2660	400	**FNS37**	**Ø19**	16
10.39	135	200	3.01	2445	410	**FHS37**		14
9.27	151	137	2.31	2405	270			
8.14	172	130	2.50	2315	280			
5.68	246	113	3.11	2075	290			
F47								**400Nm**
148.71	9	400	0.43	5920	540	**FSS47**		19
121.06	12	400	0.53	5920	520	**FMS47**		21
104.91	13	400	0.61	5920	440	**FNS47**	**Ø16**	22
95.57	15	400	0.67	5920	490	**FHS47**		19
85.41	16	400	0.75	5920	420			
79.30	18	400	0.81	5920	740			
71.21	20	400	0.90	5920	740			
67.43	21	400	0.96	5920	680	**FSS47**		19
60.83	23	400	1.06	5920	740	**FMS47**		21
55.95	25	400	1.15	5920	670	**FNS47**	**Ø19**	22
50.24	28	400	1.28	5920	660	**FHS47**		19
42.91	33	400	1.50	5920	660			
36.06	39	385	1.72	5200	540			
32.38	43	369	1.83	4885	550			
30.66	46	361	1.90	4730	440			
25.44	55	336	2.12	4535	450			
24.76	57	370	2.33	4990	420			
21.75	64	371	2.66	4710	390			
20.45	68	372	2.83	4565	380	**FSS47**		19
15.19	92	374	3.83	3865	320	**FMS47**		21
13.04	107	374	4.48	3520	340	**FNS47**	**Ø19**	22
11.26	124	243	3.36	3580	330	**FHS47**		19
9.89	142	230	3.63	3450	290			
9.30	151	225	3.77	3390	290			
6.90	203	200	4.50	3110	300			
5.93	236	188	4.94	2970	280			
4.18	335	164	6.12	2680	220			
F57								**600Nm**
174.58	8	600	0.55	9200	910			
139.34	10	600	0.69	9200	980			
122.42	11	600	0.79	9200	1050			
115.11	12	600	0.84	9200	1100			
95.01	15	600	1.01	9200	1140	**FSS57**		29
85.46	16	600	1.13	9200	1160	**FMS57**		25

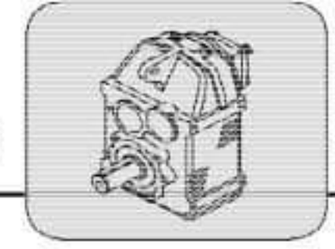


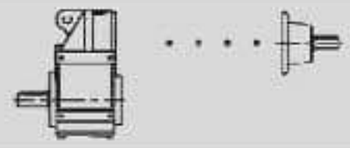
Helical Gear Units

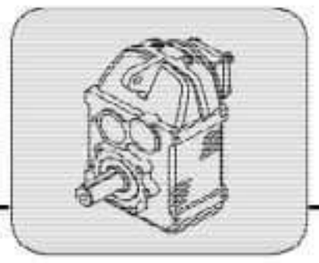
Selection Tables [kW] F..S

1400 Input Rpm

i	na [1/min]	Ma max [Nm]	Pe [kW]	FRa [N]	FRe [N]			m [kg]
73.40	19	600	1.31	9200	1200	**FNS57**	**Ø19**	36
51.72	27	600	1.86	9200	1160	**FHS57**		29
64.76	22	600	1.49	9200	960			
56.90	25	600	1.69	9200	980			
39.72	35	589	2.38	9005	970			
34.11	41	572	2.69	8405	1020			
24.04	58	550	3.67	7305	970			
26.46	53	549	3.23	7585	580	**FSS57**		30
23.31	60	551	3.69	7210	590	**FMS57**	**Ø19**	26
19.11	73	553	4.50	6565	620	**FNS57**		37
						FHS57		30
18.01	78	553	4.79	6370	620			
15.55	90	555	5.56	5905	610			
13.50	104	557	6.43	5465	650			
12.29	114	558	7.06	5190	630	**FSS57**		32
11.35	123	600	8.25	4145	370	**FMS57**	**Ø24**	28
9.31	150	550	9.22	3620	360	**FNS57**		39
8.77	160	541	9.63	3595	350	**FHS57**		32
7.57	185	512	10.54	3425	370			
6.57	213	485	11.51	3270	440			
5.98	234	468	12.19	3185	430			
F67								**820Nm**
187.70	7	820	0.70	10300	720			
151.68	9	820	0.87	10300	820			
133.62	10	820	0.99	10300	900			
109.55	13	797	1.17	10300	910			
103.23	14	791	1.23	10300	940			
89.11	16	767	1.38	10300	970	**FSS67**		32
77.36	18	748	1.55	10300	950	**FMS67**		36
70.42	20	732	1.67	10300	950	**FNS67**	**Ø19**	38
64.95	22	722	1.79	10300	900	**FHS67**		30
57.22	24	706	1.99	10300	920			
46.91	30	680	2.33	10300	950			
44.20	32	671	2.44	10300	980			
38.16	37	653	2.75	10300	970			
33.12	42	636	3.09	10300	950			
30.15	46	626	3.33	10300	950			
28.44	49	619	3.39	10300	1000			
18.10	77	622	5.35	10300	950			
16.12	87	623	6.01	10300	960			
14.46	97	625	6.73	10300	970	**FSS67**		35
13.31	105	626	7.33	10300	940	**FMS67**	**Ø24**	39
11.31	124	628	8.63	10090	910	**FNS67**		41
8.48	165	632	11.61	9105	880	**FHS67**		33
6.63	211	543	12.75	8215	620			
5.94	236	525	13.78	7950	630			
5.47	256	513	14.61	7750	590			
F77								**1500Nm**
166.80	8	1500	1.44	15700	750			
160.23	9	1500	1.50	15700	760	**FSS77**		58
147.56	9	1500	1.63	15700	730	**FMS77**	**Ø19**	59
93.90	15	1500	2.56	15700	950	**FNS77**		67
83.63	17	1500	2.88	15700	950	**FHS77**		54
75.02	19	1500	3.21	15700	940			
59.38	24	1500	4.05	15700	960	**FSS77**		59
53.26	26	1500	4.53	15700	990	**FMS77**	**Ø24**	60
49.04	29	1500	4.92	15700	990	**FNS77**		68
41.67	34	1500	5.77	15700	960	**FHS77**		55
31.25	45	1500	7.71	15700	1480	**FSS77**		64
						FMS77	**Ø38**	65
						FNS77		73
						FHS77		60
24.73	57	1500	9.46	15700	1240			
21.49	65	1500	10.88	15700	1260			
16.56	85	1500	14.12	15515	1270			



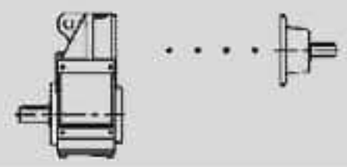
i	na [1/min]	Ma max [Nm]	Pe [kW]	FRa [N]	FRe [N]			m [kg]
15.64	90	1500	14.94	15160	1320	**FSS77**		65
14.06	100	1500	16.63	14495	1330	**FMS77**	**Ø38**	67
12.28	114	1500	19.00	13700	1300	**FNS77**		75
9.07	154	1500	25.77	11995	1270	**FHS77**		61
7.83	179	1230	24.51	11310	1020			
7.40	189	1207	25.44	11135	1060			
5.81	241	1346	36.08	8930	1020			
F87								**3000Nm**
162.37	9	3000	2.97	19800	770	**FSS87**		96
141.09	10	3000	3.42	19800	730	**FMS87**	**Ø19**	106
						FNS87		116
						FHS87		91
108.77	13	3000	4.44	19800	800	**FSS87**		98
102.70	14	3000	4.69	19800	810	**FMS87**	**Ø28**	108
92.34	15	3000	5.22	19800	790	**FNS87**		118
						FHS87		93
83.32	17	3000	5.79	19800	1100			
78.67	18	3000	6.12	19800	1120	**FSS87**		102
70.73	20	2940	6.68	19800	1110	**FMS87**		112
61.76	23	2866	7.44	19800	1200	**FNS87**	**Ø38**	122
53.48	26	2092	6.28	19800	1170	**FHS87**		97
46.47	30	2077	7.18	19495	1130			
35.83	39	2088	9.36	17310	1090			
24.98	56	2104	13.51	14560	2370	**FSS87**		110
19.61	71	2117	17.32	12850	2260	**FMS87**	**Ø42**	120
						FNS87		130
						FHS87		105
32.21	43	2543	12.30	16330	1160	**FSS87**		107
28.41	49	2486	13.63	15590	1160	**FMS87**		117
25.94	54	2446	14.69	15080	1140	**FNS87**	**Ø38**	127
22.10	63	2420	17.08	14045	1150	**FHS87**		102
20.73	68	2423	18.20	13610	1110			
18.69	75	2429	20.26	12900	2230			
16.55	85	2436	22.90	12115	2170			
14.76	95	2443	25.79	11375	2110			
13.23	106	2450	28.83	10705	2050	**FSS87**		115
9.76	143	2469	39.32	8950	1840	**FMS87**	**Ø42**	125
8.04	174	2212	42.89	7280	1710	**FNS87**		135
7.12	197	2161	47.23	6915	1680	**FHS87**		110
6.35	221	2089	51.28	6665	1670			
5.69	246	2022	55.34	6450	1650			
4.20	334	1840	68.16	5925	1580			
F97								**4300Nm**
170.08	8	4300	4.07	29900	590	**FSS97**		174
149.98	9	4300	4.61	29900	570	**FMS97**	**Ø28**	189
136.95	10	4300	5.05	29900	520	**FNS97**		204
						FHS97		164
109.42	13	4300	6.32	29900	1530			
116.67	12	4300	5.93	29900	1550	**FSS97**		177
98.66	14	4300	7.01	29900	1510	**FMS97**	**Ø38**	192
87.40	16	4300	7.91	29900	1490	**FNS97**		207
77.93	18	4218	8.71	29785	1470	**FHS97**		167
64.52	22	4075	10.14	27895	1270			
57.15	25	3985	11.18	26740	3710	**FSS97**		185
50.96	27	3900	12.29	25665	3640	**FMS97**	**Ø42**	200
45.69	31	3823	13.43	24690	3660	**FNS97**		215
33.70	42	3616	17.19	22170	3550	**FHS97**		175
32.38	43	3588	17.27	21825	2460	**FSS97**		190
28.88	48	3514	18.98	20930	2450	**FMS97**	**Ø42**	205
22.72	62	3365	23.08	19190	2430	**FNS97**		220
						FHS97		180
17.48	80	3350	29.84	17010	3240			
13.86	101	3369	37.94	15090	3120	**FSS97**		196
12.95	108	2332	28.08	16330	2710	**FMS97**		211
11.55	121	2917	39.41	13305	2220	**FNS97**	**Ø48**	226

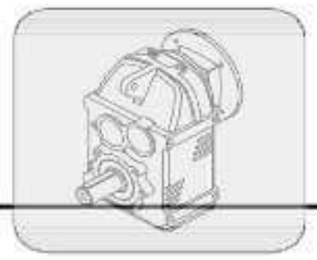


Helical Gear Units

Selection Tables [kW] F..S

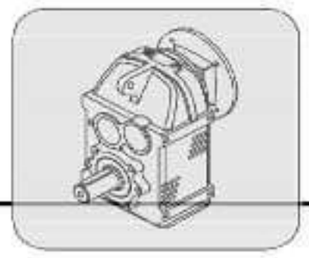
1400 Input Rpm

i	na [1/min]	Ma max [Nm]	Pe [kW]	FRa [N]	FRe [N]		m [kg]
9.09	154	2715	46.59	12385	2230	**FHS97**	186
6.99	200	2049	45.67	13165	2610		
5.54	253	2339	65.91	10670	2160		



1750 Input Rpm

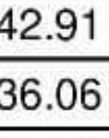
F37 , ne=1750 1/min								200 Nm 實心入力軸徑
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	Input shaft mm
			3					
14	200	4290	128.51					
15	200	4290	117.88					
17	200	4290	100.36					
22	200	4290	80.65					
25	200	4290	70.5					
26	200	4290	66.09					
30	200	4290	58.32					
32	200	4290	54.54					
34	200	4290	51.7					
40	200	4290	43.83					
46	200	4230	38.31					
49	200	4110	35.91					
55	200	3875	31.69					
62	200	3660	28.1					
			2					
71	200	3430	24.7					
89	200	3060	19.71					
101	200	2860	17.32					
107	200	2770	16.29					
145	200	2350	12.09					
168	200	2150	10.39					
189	137	2250	9.27					
215	130	2160	8.14					
308	114	1940	5.68					



Parallel Shaft Gear Units

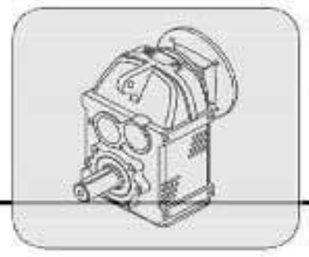
Permitted Combinations

1750 Input Rpm

F47 , ne=1750 1/min							400 Nm	實心入力軸徑
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	Input shaft mm
 3								
12	400	5920	148.71					Ø16
14	400	5920	121.06					
17	400	5920	104.91					
18	400	5920	95.57					
20	400	5920	85.41					
22	400	5920	79.30					Ø19
25	400	5920	71.21					
26	400	5920	67.43					
29	400	5920	60.83					
31	400	5920	55.95					
35	400	5920	50.24					
41	400	5710	42.91					
49	385	4705	36.06					
54	369	4555	32.38					
57	361	4480	30.66					
69	336	4245	25.44					
 2								
71	370	4480	24.76					Ø19
80	371	4175	21.75					
86	372	4025	20.45					
115	374	3380	15.19					
134	374	3065	13.04					
155	243	3355	11.26					
177	230	3230	9.89					
188	225	3175	9.30					
253	200	2910	6.90					
295	188	2780	5.93					
419	164	2505	4.18					

1750 Input Rpm

F57 , ne=1750 1/min										600 Nm 實心入力軸徑
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	100L	112M	Input shaft mm
			3							
10	600	9200	174.58							
13	600	9200	139.34							
14	600	9200	122.42							
15	600	9200	115.11							
18	600	9200	95.01							
20	600	9200	85.46							
24	600	9200	73.4							Ø19
34	600	9175	51.72							
27	600	9200	64.76							
31	600	9200	56.9							
44	589	8170	39.72							
51	572	7685	34.11							
73	550	6600	24.04							
			2							
66	549	6920	26.46							
75	551	6485	23.31							Ø19
92	553	5850	19.11							
97	553	5665	18.01							
113	555	5225	15.55							
130	557	4820	13.5							
142	558	4570	12.29							
154	600	3555	11.35							Ø24
188	550	3405	9.31							
200	541	3330	8.77							
231	512	3195	7.57							
266	485	3065	6.57							
293	468	2990	5.98							

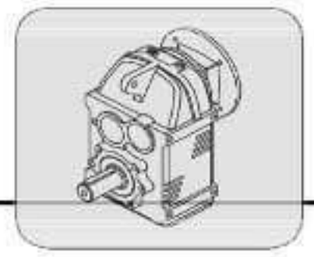


Parallel Shaft Gear Units

Permitted Combinations

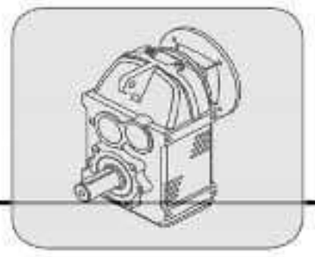
1750 Input Rpm

F67 , ne=1750 1/min										820 Nm 實心入力軸徑
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90L	100L	112M	Input shaft mm
			3							
9	820	10300	187.70							
12	820	10300	151.68							
13	820	10300	133.62							
16	797	10300	109.55							
17	791	10300	103.23							
20	767	10300	89.11							
23	748	10300	77.36							
25	732	10300	70.42							Ø19
27	722	10300	64.95							
31	706	10300	57.22							
37	680	10300	46.91							
40	671	10300	44.20							
46	653	10300	38.16							
53	636	10300	33.12							
58	626	10300	30.15							
			2							
62	619	10300	28.44							
97	622	10300	18.10							
109	623	10300	16.12							
121	625	10175	14.46							
131	626	9885	13.31							Ø24
155	628	9330	11.31							
206	632	8410	8.48							
264	543	7565	6.63							
295	525	7320	5.94							
320	513	7140	5.47							



1750 Input Rpm

F77 , ne=1750 1/min										1500 Nm 實心入力軸徑
na [1/min]	Mamax [Nm]	FRa [N]	i	80	90L	100L	112M	132S	132M	Input shaft mm
			3							
10	1500	15700	166.80							
11	1500	15700	160.23							
12	1500	15700	147.56							
19	1500	15700	93.90							Ø19
21	1500	15700	83.63							
23	1500	15700	75.02							
29	1500	15700	59.38							
33	1500	15700	53.26							Ø24
36	1500	15700	49.04							
42	1500	15700	41.67							
56	1500	15700	31.25							Ø38
			2							
71	1500	15700	24.73							
81	1500	15700	21.49							
106	1500	14135	16.56							
112	1500	13805	15.64							
124	1500	13185	14.06							
143	1500	12440	12.28							Ø38
193	1500	10845	9.07							
223	1230	10240	7.83							
237	1207	10085	7.40							
263	1174	9740	6.65							
301	1346	8355	5.81							

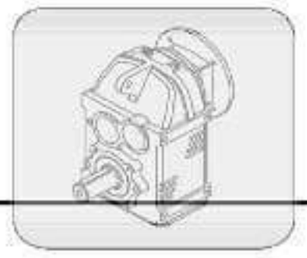


Parallel Shaft Gear Units

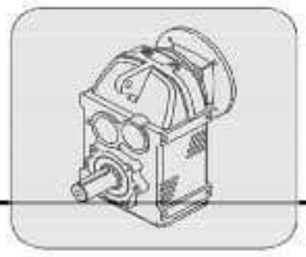
Permitted Combinations

1750 Input Rpm

F87 , ne=1750 1/min											3000 Nm 實心入力軸徑
na [1/min]	Mamax [Nm]	FRa [N]	i	90L	100L	112M	132S	132M	160M	160L	Input shaft mm
			3								
11	3000	19800	162.37								Ø19
12	3000	19800	141.09								
16	3000	19800	108.77								Ø28
17	3000	19800	102.70								
19	3000	19800	92.34								
21	3000	19800	83.32								Ø38
22	3000	19800	78.67								
25	2940	19595	70.73								
28	2866	18680	61.76								
33	2092	18730	53.48								
38	2077	17655	46.47								
49	2088	15605	35.83								
70	2104	13035	24.98								Ø42
89	2117	11430	19.61								
			2								
54	2543	14680	32.21								Ø38
62	2486	14005	28.41								
67	2446	13535	25.94								
79	2420	12570	22.10								
84	2423	12165	20.73								
94	2429	11500	18.69								Ø42
106	2436	10765	16.55								
119	2443	10070	14.76								
132	2450	9440	13.23								
179	2469	7795	9.76								
218	2212	6195	8.04								
246	2161	5865	7.12								
276	2089	5650	6.35								
308	2022	5470	5.69								
417	1840	5030	4.20								



F97 , ne=1750 1/min											4300 Nm 實心入力軸徑
na [1/min]	Mamax [Nm]	FRa [N]	i	100L	112M	132S	132M	160M	160L	180MC	Input shaft mm
			3								
10	4300	29900	170.08								Ø28
12	4300	29900	149.98								
13	4300	29900	136.95								
16	4300	29900	109.42								Ø38
15	4300	29900	116.67								
18	4300	29690	98.66								
20	4300	28170	87.40								
22	4218	27010	77.93								
27	4075	25270	64.52								
31	3985	24215	57.15								Ø42
34	3900	23220	50.96								
38	3823	22325	45.69								
52	3616	20010	33.70								
			2								
54	3588	19690	32.38								Ø42
61	3514	18875	28.88								
77	3365	17275	22.72								
100	3350	15240	17.48								Ø48
126	3369	13435	13.86								
135	2332	14715	12.95								
151	2917	11740	11.55								
193	2715	10930	9.09								
250	2049	11820	6.99								
316	2339	9415	5.54								

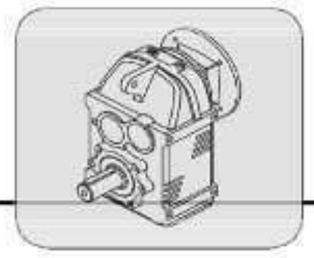


Parallel Shaft Gear Units

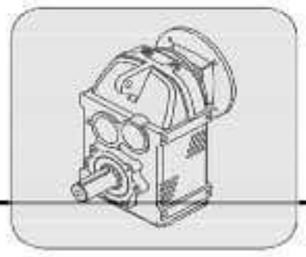
Permitted Combinations

1750 Input Rpm

F37R17 , ne=1750 1/min							200 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	56	63	71	80
		3	3				
0.22	200	4290	8021				
0.25	200	4290	6901				
0.29	200	4290	5950				
0.32	200	4290	5538				
0.35	200	4290	5013				
0.39	200	4290	4537				
0.45	200	4290	3911				
0.51	200	4290	3452				
0.58	200	4290	3001				
0.67	200	4290	2616				
0.75	200	4290	2323				
0.90	200	4290	1939				
1.02	200	4290	1711				
1.15	200	4290	1520				
		2	3				
0.89	200	4290	1973				
1.03	200	4290	1697				
1.20	200	4290	1463				
1.29	200	4290	1354				
1.56	200	4290	1123				
1.71	200	4290	1026				
1.79	200	4290	979				
2.01	200	4290	869				
2.41	200	4290	725				
2.52	200	4290	693				
3.05	200	4290	573				
3.66	200	4290	478				
4.11	200	4290	426				
4.80	200	4290	365				
		3	2				
1.45	200	4290	1211				
1.66	200	4290	1057				
1.96	200	4290	891				
2.16	200	4290	810				
2.48	200	4290	707				
2.92	200	4290	600				
3.18	200	4290	549				



F47R17 , ne=1750 1/min							400 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	56	63	71	80
			3 3				
0.15	400	5920	11882				
0.17	400	5920	10223				
0.20	400	5920	8814				
0.24	400	5920	7426				
0.27	400	5920	6555				
0.31	400	5920	5651				
0.35	400	5920	5054				
0.40	400	5920	4368				
0.47	400	5920	3690				
0.52	400	5920	3356				
0.60	400	5920	2930				
0.67	400	5920	2598				
0.75	400	5920	2330				
0.84	400	5920	2090				
			2 3				
0.89	400	5920	1977				
1.03	400	5920	1701				
1.17	400	5920	1495				
1.25	400	5920	1406				
1.44	400	5920	1212				
1.67	400	5920	1045				
1.88	400	5920	930				
2.16	400	5920	810				
2.43	400	5920	720				
2.85	400	5920	613				
			3 2				
0.96	400	5920	1818				
1.11	400	5920	1575				
1.32	400	5920	1327				
1.45	400	5920	1207				
1.66	400	5920	1054				
1.91	400	5920	914				
2.19	400	5920	797				
2.47	400	5920	708				
2.76	400	5920	635				
3.22	400	5920	543				

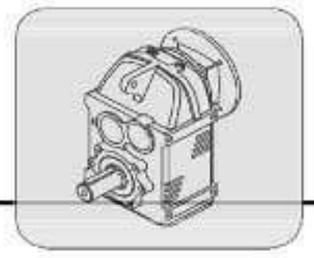


Parallel Shaft Gear Units

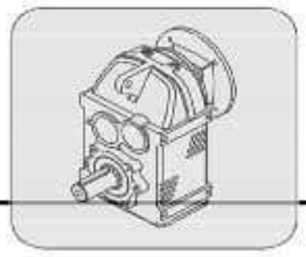
Permitted Combinations

1750 Input Rpm

F57R37 , ne=1750 1/min							600 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90
		3	3				
0.12	600	9200	14610				
0.13	600	9200	13392				
0.14	600	9200	12757				
0.16	600	9200	11211				
0.18	600	9200	9770				
0.20	600	9200	8716				
0.22	600	9200	7837				
0.26	600	9200	6830				
0.29	600	9200	6017				
0.32	600	9200	5391				
0.38	600	9200	4617				
0.43	600	9200	4024				
0.49	600	9200	3573				
0.55	600	9200	3171				
0.61	600	9200	2856				
0.71	600	9200	2465				
0.79	600	9200	2217				
0.92	600	9200	1899				
1.04	600	9200	1680				
1.19	600	9200	1476				
1.42	600	9200	1236				
		2	3				
0.63	600	9200	2780				
0.66	600	9200	2661				
0.77	600	9200	2282				
0.86	600	9200	2030				
0.98	600	9200	1786				
1.09	600	9200	1611				
1.23	600	9200	1424				
1.41	600	9200	1241				
1.65	600	9200	1061				
1.87	600	9200	934				
2.08	600	9200	842				
2.28	600	9200	767				
2.62	600	9200	668				
3.22	600	9200	543				
3.63	600	9200	483				



F67R37 , ne=1750 1/min							820 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90
		3	3				
0.09	820	10300	18485				
0.12	820	10300	15177				
0.13	820	10300	13084				
0.16	820	10300	11025				
0.17	820	10300	10040				
0.20	820	10300	8750				
0.22	820	10300	7914				
0.25	820	10300	7087				
0.29	820	10300	5942				
0.33	820	10300	5355				
0.37	820	10300	4667				
0.42	820	10300	4138				
0.49	820	10300	3575				
0.56	820	10300	3116				
0.63	820	10300	2767				
0.71	820	10300	2466				
		2	3				
0.52	820	10300	3394				
0.61	820	10300	2859				
0.67	820	10300	2604				
0.77	820	10300	2269				
0.80	820	10300	2181				
0.88	820	10300	1986				
1.05	820	10300	1659				
1.21	820	10300	1446				
1.40	820	10300	1252				
1.53	820	10300	1140				
1.76	820	10300	994				
1.98	820	10300	883				
2.41	820	10300	727				
2.76	820	10300	633				
3.28	820	10300	533				
		3	2				
0.85	820	10300	2059				
0.92	820	10300	1897				
1.08	820	10300	1626				

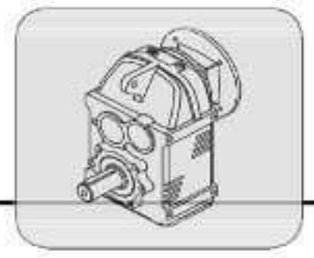


Parallel Shaft Gear Units

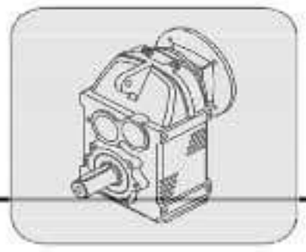
Permitted Combinations

1750 Input Rpm

F77R37 , ne=1400 1/min							1500 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90
		3	3				
0.09	1500	15700	19110				
0.10	1500	15700	17598				
0.11	1500	15700	16102				
0.12	1500	15700	14828				
0.13	1500	15700	13504				
0.15	1500	15700	11768				
0.15	1500	15700	11310				
0.17	1500	15700	10300				
0.18	1500	15700	9747				
0.20	1500	15700	8605				
0.23	1500	15700	7499				
0.27	1500	15700	6563				
0.31	1500	15700	5720				
0.34	1500	15700	5098				
0.38	1500	15700	4563				
0.46	1500	15700	3768				
0.52	1500	15700	3359				
0.58	1500	15700	3006				
0.67	1500	15700	2619				
0.75	1500	15700	2326				
0.84	1500	15700	2079				
		2	3				
0.51	1500	15700	3420				
0.59	1500	15700	2949				
0.68	1500	15700	2563				
0.77	1500	15700	2263				
0.89	1500	15700	1972				
1.01	1500	15700	1726				
1.06	1500	15700	1647				
1.22	1500	15700	1432				
1.31	1500	15700	1336				
1.51	1500	15700	1161				
1.62	1500	15700	1078				
1.96	1500	15700	894				
		3	2				
1.04	1500	15700	1682				
1.17	1500	15700	1499				



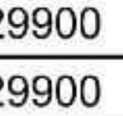
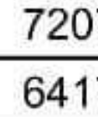
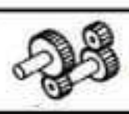
F87R57 , ne=1400 1/min									3000 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90	100L	112M
		3	3						
0.08	3000	19800	23147						
0.09	3000	19800	19942						
0.10	3000	19800	18215						
0.11	3000	19800	15922						
0.12	3000	19800	14034						
0.14	3000	19800	12267						
0.17	3000	19800	10452						
0.19	3000	19800	9392						
0.21	3000	19800	8180						
0.25	3000	19800	7045						
0.28	3000	19800	6274						
0.32	3000	19800	5553						
0.35	3000	19800	4989						
0.41	3000	19800	4258						
0.47	3000	19800	3729						
		2	3						
0.37	3000	19800	4750						
0.41	3000	19800	4261						
0.46	3000	19800	3796						
0.51	3000	19800	3421						
0.55	3000	19800	3209						
0.61	3000	19800	2853						
0.68	3000	19800	2567						
0.82	3000	19800	2140						
0.92	3000	19800	1907						
1.02	3000	19800	1710						
1.22	3000	19800	1433						
1.40	3000	19800	1249						
1.55	3000	19800	1126						
1.77	3000	19800	990						
1.97	3000	19800	890						
2.23	3000	19800	785						
2.29	3000	19800	766						
		3	2						
0.53	3000	19800	3322						
0.59	3000	19800	2957						
0.67	3000	19800	2596						

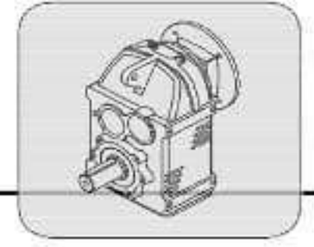


Parallel Shaft Gear Units

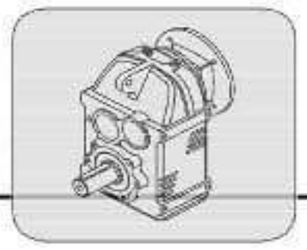
Permitted Combinations

1750 Input Rpm

F97R57 , ne=1750 1/min									4300 Nm
na [1/min]	Mamax [Nm]	FRa [N]	i	63	71	80	90	100L	112M
		 3	 3						
0.06	4300	29900	27882						
0.07	4300	29900	24021						
0.08	4300	29900	21182						
0.10	4300	29900	17946						
0.11	4300	29900	15461						
0.13	4300	29900	13932						
0.14	4300	29900	12345						
0.16	4300	29900	10870						
0.18	4300	29900	9601						
0.21	4300	29900	8340						
0.24	4300	29900	7207						
0.27	4300	29900	6417						
0.31	4300	29900	5648						
0.35	4300	29900	5047						
0.40	4300	29900	4366						
		 2	 3						
0.30	4300	29900	5927						
0.33	4300	29900	5282						
0.38	4300	29900	4580						
0.43	4300	29900	4081						
0.53	4300	29900	3296						
0.59	4300	29900	2977						
0.68	4300	29900	2580						
0.76	4300	29900	2299						
0.90	4300	29900	1950						
1.01	4300	29900	1738						
1.19	4300	29900	1473						
1.31	4300	29900	1333						
1.43	4300	29900	1226						
1.67	4300	29900	1049						
		 3	 2						
4.62	4300	29900	3786						
5.06	4300	29900	3458						
5.95	4300	29900	2943						
6.80	4300	29900	2575						
7.63	4300	29900	2292						
8.90	4300	29900	1967						



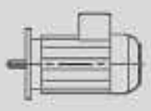
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
0.12	**0.27**	3499	6417	29900	1.23	**FS97 R57**		187
(0.16HP)	**0.31**	3079	5648	29900	1.40	**FM97 R57**	**63**	202
	0.35	2752	5047	29900	1.56	**FN97 R57**		217
	0.40	2380	4366	29900	1.81	**FH97 R57**		177
	0.43	2294	4081	29900	1.87	**FS97 R57**		182
	0.53	1853	3296	29900	2.32	**FM97 R57**	**63**	197
	0.59	1673	2977	29900	2.57	**FN97 R57**		212
	0.68	1450	2580	29900	2.97	**FH97 R57**		172
	0.41	2322	4258	19800	1.29	**FS87 R57**		117
	0.47	2033	3729	19800	1.48	**FM87 R57**	**63**	127
						FN87 R57		137
						FH87 R57		112
	0.55	1804	3209	19800	1.66			
	0.61	1604	2853	19800	1.87			
	0.68	1443	2567	19800	2.08	**FS87 R57**		112
	0.82	1203	2140	19800	2.49	**FM87 R57**		122
	0.92	1072	1907	19800	2.80	**FN87 R57**	**63**	132
	1.02	961	1710	19800	3.12	**FH87 R57**		107
	1.22	805	1433	19800	3.73			
	1.40	702	1249	19800	4.27			
	1.55	633	1126	19800	4.74			
	0.67	1428	2619	15700	1.05	**FS77 R37**		66
	0.75	1268	2326	15700	1.18	**FM77 R37**	**63**	68
	0.84	1133	2079	15700	1.32	**FN77 R37**		76
						FH77 R37		62
	1.01	970	1726	15700	1.55			
	1.06	926	1647	15700	1.62	**FS77 R37**		65
	1.22	805	1432	15700	1.86	**FM77 R37**		66
	1.31	751	1336	15700	2.00	**FN77 R37**	**63**	74
	1.51	653	1161	15700	2.30	**FH77 R37**		61
	1.62	606	1078	15700	2.48			
	1.96	503	894	15700	2.98			
	1.22	806	1433	10300	1.02			
	1.36	723	1287	10300	1.13			
	1.57	625	1112	10300	1.31			
	1.73	569	1012	10300	1.44	**FS67 R37**		42
	2.06	477	848	10300	1.72	**FM67 R37**	**63**	46
	2.34	420	746	10300	1.95	**FN67 R37**		48
	2.69	366	651	10300	2.24	**FH67 R37**		40
	3.06	322	572	10300	2.55			
	3.41	288	513	10300	2.84			
	4.00	246	437	10300	3.34			
	2.06	477	848	9200	1.26			
	2.38	413	735	9200	1.45	**FS57 R37**		39
	2.69	365	650	9200	1.64	**FM57 R37**	**63**	45
	3.17	310	551	9200	1.94	**FN57 R37**		46
	3.54	278	494	9200	2.16	**FH57 R37**		39
	3.92	251	446	9200	2.39			
	4.14	245	423	9200	2.45	**FS57 R37**		38
	4.59	221	382	9200	2.71	**FM57 R37**		44
	5.29	192	331	9200	3.13	**FN57 R37**	**63**	45
	5.81	175	301	9200	3.44	**FH57 R37**		38
	6.59	154	265	9200	3.90			
	3.22	305	543	5920	1.31	**FS47 R17**		25
	3.67	268	476	5920	1.49	**FM47 R17**	**63**	27
	4.20	234	417	5920	1.71	**FN47 R17**		28
						FH47 R17		25
	4.71	215	372	5920	1.86	**FS47 R17**		25
	5.36	189	327	5920	2.11	**FM47 R17**	63	27

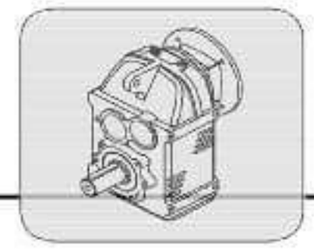


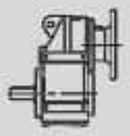
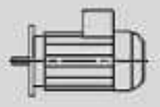
Parallel Shaft Gear Units

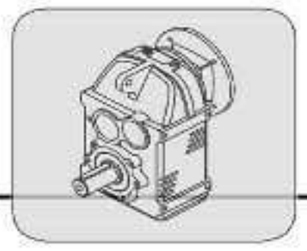
Selection Tables [kW] F..F/..M

1750 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	5.70	178	307	5920	2.25	**FN47 R17**	**63**	28
	6.76	150	259	5920	2.67	**FH47 R17**		25
	5.35	184	327	4290	1.09	**FS37 R17**		20
	6.41	154	273	4290	1.30	**FM37 R17**	**63**	21
	7.41	133	236	4290	1.51	**FN37 R17**		22
	7.90	125	222	4290	1.61	**FH37 R17**		20
	5.60	181	313	4290	1.10			
	5.91	172	296	4290	1.17	**FS37 R17**		20
	7.05	144	248	4290	1.39	**FM37 R17**	**63**	21
	7.98	127	219	4290	1.57	**FN37 R17**		22
	9.52	107	184	4290	1.88	**FH37 R17**		20
	10.70	95	164	4290	2.11			
	10.02	104	174.58	9200	5.75	**FS57**		29
						FM57	**63**	25
						FN57		36
						FH57		29
	11.77	89	148.71	5920	4.50	**FS47**		20
	14.46	72	121.06	5920	5.53	**FM47**	**63**	22
						FN47		23
						FH47		20
	13.62	77	128.51	4290	2.61			
	14.85	70	117.88	4290	2.84	**FS37**		15
	17.44	60	100.36	4290	3.33	**FM37**		16
	21.70	48	80.65	4290	4.15	**FN37**	**63**	17
	24.82	42	70.50	4290	4.76	**FH37**		15
	26.48	39	66.09	4290	5.07			
	30.01	35	58.32	4290	5.74			
0.18 (0.25HP)	**0.40**	3571	4366	29900	1.20	**FS97 R57**		187
						FM97 R57	**63**	202
						FN97 R57		217
						FH97 R57		177
	0.43	3441	4081	29900	1.25			
	0.53	2779	3296	29900	1.55			
	0.59	2510	2977	29900	1.71			
	0.68	2175	2580	29900	1.98	**FS97 R57**		182
	0.76	1938	2299	29900	2.22	**FM97 R57**	**63**	197
	0.90	1644	1950	29900	2.62	**FN97 R57**		212
	1.01	1465	1738	29900	2.93	**FH97 R57**		172
	1.19	1242	1473	29900	3.46			
	1.31	1124	1333	29900	3.83			
	1.43	1034	1226	29900	4.16			
	0.67	2188	2596	19800	1.37			
	0.81	1833	2174	19800	1.64			
	0.90	1631	1935	19800	1.84			
	1.01	1463	1735	19800	2.05	**FS87 R57**		117
	1.18	1251	1484	19800	2.40	**FM87 R57**	**63**	127
	1.35	1091	1294	19800	2.75	**FN87 R57**		137
	1.50	982	1164	19800	3.06	**FH87 R57**		112
	1.64	897	1064	19800	3.34			
	1.82	810	961	19800	3.70			
	2.14	688	816	19800	4.36			
	1.17	1264	1499	15700	1.19			
	1.30	1131	1342	15700	1.33			
	1.46	1012	1201	15700	1.48	**FS77 R37**		66
	1.65	896	1062	15700	1.67	**FM77 R37**	**63**	68
	1.99	742	880	15700	2.02	**FN77 R37**		76
	2.19	673	799	15700	2.23	**FH77 R37**		62
	2.46	600	712	15700	2.50			
	2.93	503	596	15700	2.98			



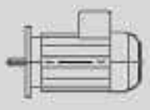
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	2.06	715	848	10300	1.15			
	2.34	629	746	10300	1.30	**FS67 R37**		42
	2.69	548	651	10300	1.50	**FM67 R37**		46
	3.06	483	572	10300	1.70	**FN67 R37**	**63**	48
	3.41	433	513	10300	1.89	**FH67 R37**		40
	4.00	369	437	10300	2.22			
	4.58	322	382	10300	2.54			
	3.44	442	509	10300	1.85			
	3.94	386	444	10300	2.12	**FS67 R37**		41
	4.37	348	400	10300	2.36	**FM67 R37**		45
	5.24	290	334	10300	2.83	**FN67 R37**	**63**	47
	6.13	248	285	10300	3.30	**FH67 R37**		39
	7.39	206	237	10300	3.98			
	9.13	167	192	10300	4.92			
	3.17	465	551	9200	1.29	**FS57 R37**		39
	3.54	417	494	9200	1.44	**FM57 R37**		45
	3.92	376	446	9200	1.60	**FN57 R37**	**63**	46
	4.56	324	384	9200	1.85	**FH57 R37**		39
	5.17	286	339	9200	2.10			
	4.14	367	423	9200	1.63			
	4.59	332	382	9200	1.81	**FS57 R37**		38
	5.29	288	331	9200	2.09	**FM57 R37**		44
	5.81	262	301	9200	2.29	**FN57 R37**	**63**	45
	6.59	231	265	9200	2.60	**FH57 R37**		38
	7.78	196	225	9200	3.07			
	8.61	177	203	9200	3.40			
	4.68	315	374	5920	1.27	**FS47 R17**		25
	5.38	274	325	5920	1.46	**FM47 R17**		27
	6.07	243	288	5920	1.65	**FN47 R17**	**63**	28
	7.10	208	247	5920	1.92	**FH47 R17**		25
	5.36	284	327	5920	1.41			
	5.70	267	307	5920	1.50	**FS47 R17**		25
	6.76	225	259	5920	1.78	**FM47 R17**		27
	8.01	190	218	5920	2.11	**FN47 R17**	**63**	28
	9.09	167	192	5920	2.39	**FH47 R17**		25
	10.36	147	169	5920	2.72			
	9.52	160	184	4290	1.25	**FS37 R17**		20
	10.70	142	164	4290	1.41	**FM37 R17**		21
	11.93	128	147	4290	1.57	**FN37 R17**	**63**	22
	13.57	112	129	4290	1.78	**FH37 R17**		20
	9.32	168	187.70	10300	4.87	**FS67**		32
						FM67		36
						FN67	**63**	38
						FH67		30
	10.02	156	174.58	9200	3.83	**FS57**		29
	12.56	125	139.34	9200	4.80	**FM57**		25
	14.30	110	122.42	9200	5.47	**FN57**	**63**	36
	15.20	103	115.11	9200	5.81	**FH57**		29
	11.77	133	148.71	5920	3.00			
	14.46	108	121.06	5920	3.69	**FS47**		20
	16.68	94	104.91	5920	4.26	**FM47**		22
	18.31	86	95.57	5920	4.68	**FN47**	**63**	23
	20.49	77	85.41	5920	5.23	**FH47**		20
	22.07	71	79.30	5920	5.62			
	13.62	115	128.51	4290	1.74			
	14.85	106	117.88	4290	1.89			
	17.44	90	100.36	4290	2.22			
	21.70	72	80.65	4290	2.77	**FS37**		15
	24.82	63	70.50	4290	3.17	**FM37**		16

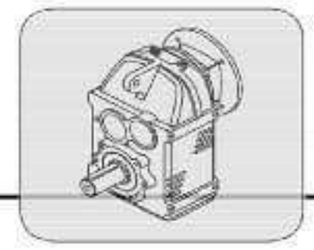


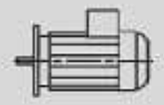
Parallel Shaft Gear Units

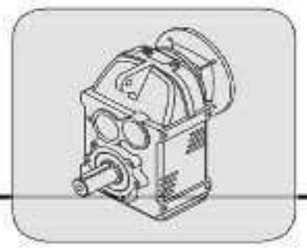
Selection Tables [kW] F..F/..M

1750 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	26.48	59	66.09	4290	3.38	**FN37**	**63**	17
	30.01	52	58.32	4290	3.83	**FH37**		15
	32.09	49	54.54	4290	4.08			
	33.85	46	51.70	4290	4.31			
	39.93	39	43.83	4290	5.08			
	45.68	34	38.31	4290	5.82			
0.25	**0.59**	3446	2943	29900	1.25			
(0.34HP)	**0.68**	3016	2575	29900	1.43			
	0.76	2684	2292	29900	1.60	**FS97 R57**		187
	0.89	2303	1967	29900	1.87	**FM97 R57**		202
	1.01	2022	1727	29900	2.13	**FN97 R57**	**71**	217
	1.11	1847	1578	29900	2.33	**FH97 R57**		177
	1.30	1572	1343	29900	2.74			
	1.54	1330	1136	29900	3.23			
	1.74	1180	1008	29900	3.64			
	0.90	2265	1935	19800	1.32			
	1.01	2031	1735	19800	1.48			
	1.18	1737	1484	19800	1.73	**FS87 R57**		117
	1.35	1515	1294	19800	1.98	**FM87 R57**		127
	1.50	1363	1164	19800	2.20	**FN87 R57**	**71**	137
	1.64	1246	1064	19800	2.41	**FH87 R57**		112
	1.82	1125	961	19800	2.67			
	2.14	956	816	19800	3.14			
	2.47	829	708	19800	3.62			
	1.65	1244	1062	15700	1.21			
	1.99	1030	880	15700	1.46			
	2.19	935	799	15700	1.60	**FS77 R37**		66
	2.46	834	712	15700	1.80	**FM77 R37**	**71**	68
	2.93	698	596	15700	2.15	**FN77 R37**		76
	3.23	633	541	15700	2.37	**FH77 R37**		62
	3.63	565	482	15700	2.66			
	4.20	488	416	15700	3.08			
	3.06	670	572	10300	1.22	**FS67 R37**		42
	3.41	601	513	10300	1.36	**FM67 R37**	**71**	46
	4.00	512	437	10300	1.60	**FN67 R37**		48
						FH67 R37		40
	3.44	615	509	10300	1.33			
	3.94	536	444	10300	1.53	**FS67 R37**		41
	4.37	483	400	10300	1.70	**FM67 R37**	**71**	45
	5.24	403	334	10300	2.03	**FN67 R37**		47
	6.13	345	285	10300	2.38	**FH67 R37**		39
	7.39	286	237	10300	2.87			
	4.56	450	384	9200	1.33	**FS57 R37**		39
	5.17	397	339	9200	1.51	**FM57 R37**	**71**	45
	6.92	296	253	9200	2.03	**FN57 R37**		46
						FH57 R37		39
	4.59	461	382	9200	1.30			
	5.29	399	331	9200	1.50	**FS57 R37**		38
	5.81	364	301	9200	1.65	**FM57 R37**		44
	6.59	320	265	9200	1.87	**FN57 R37**	**71**	45
	7.78	272	225	9200	2.21	**FH57 R37**		38
	8.61	245	203	9200	2.45			
	9.92	213	176	9200	2.82			
	7.10	289	247	5920	1.39	**FS47 R17**		25
	8.17	251	214	5920	1.59	**FM47 R17**	**71**	27
	9.24	222	189	5920	1.80	**FN47 R17**		28
	10.07	203	174	5920	1.97	**FH47 R17**		25
	6.76	313	259	5920	1.28			
	8.01	264	218	5920	1.52	**FS47 R17**		25



Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	9.09	232	192	5920	1.72	**FM47 R17**	**71**	27
	10.36	204	169	5920	1.96	**FN47 R17**		28
	11.78	179	149	5920	2.23	**FH47 R17**		25
	13.38	158	131	5920	2.53			
	11.93	177	147	4290	1.13	**FS37 R17**		20
	13.57	156	129	4290	1.28	**FM37 R17**		21
	14.94	141	117	4290	1.41	**FN37 R17**	**71**	22
	17.78	119	98	4290	1.68	**FH37 R17**		20
	20.24	104	86	4290	1.92			
	9.32	234	188	10300	3.51	**FS67**		32
	11.54	189	152	10300	4.34	**FM67**	**71**	36
	13.10	166	134	10300	4.93	**FN67**		38
	15.97	136	110	10300	5.84	**FH67**		30
	10.02	217	174.58	9200	2.76			
	12.56	173	139.34	9200	3.46	**FS57**		29
	14.30	152	122.42	9200	3.94	**FM57**	**71**	25
	15.20	143	115.11	9200	4.19	**FN57**		36
	18.42	118	95.01	9200	5.06	**FH57**		29
	20.48	106	85.46	9200	5.63			
	11.77	185	148.71	5920	2.16			
	14.46	151	121.06	5920	2.66			
	16.68	131	104.91	5920	3.06			
	18.31	119	95.57	5920	3.37	**FS47**		20
	20.49	106	85.41	5920	3.77	**FM47**	**71**	22
	22.07	99	79.30	5920	4.05	**FN47**		23
	24.57	89	71.21	5920	4.51	**FH47**		20
	25.95	84	67.43	5920	4.78			
	28.77	76	60.83	5920	5.28			
	31.28	70	55.95	5920	5.74			
	13.62	160	128.51	4290	1.25			
	14.85	147	117.88	4290	1.36			
	17.44	125	100.36	4290	1.60			
	21.70	100	80.65	4290	1.99			
	24.82	88	70.50	4290	2.28			
	26.48	82	66.09	4290	2.43	**FS37**		15
	30.01	73	58.32	4290	2.76	**FM37**	**71**	16
	32.09	68	54.54	4290	2.94	**FN37**		17
	33.85	64	51.70	4290	3.10	**FH37**		15
	39.93	55	43.83	4290	3.66			
	45.68	48	38.31	4290	4.19			
	48.73	45	35.91	4290	4.47			
	55.22	39	31.69	4290	5.06			
	62.29	35	28.10	4290	5.70			
0.37	**0.89**	3409	1967	29900	1.26			
(0.5HP)	**1.01**	2993	1727	29900	1.44	**FS97 R57**		187
	1.11	2734	1578	29900	1.57	**FM97 R57**		202
	1.30	2327	1343	29900	1.85	**FN97 R57**	**71**	217
	1.54	1969	1136	29900	2.18	**FH97 R57**		177
	1.74	1747	1008	29900	2.46			
	1.95	1555	897	29900	2.76			
	1.35	2243	1294	19800	1.34			
	1.50	2018	1164	19800	1.49			
	1.64	1844	1064	19800	1.63	**FS87 R57**		117
	1.82	1665	961	19800	1.80	**FM87 R57**		127
	2.14	1414	816	19800	2.12	**FN87 R57**	**71**	137
	2.47	1227	708	19800	2.44	**FH87 R57**		112
	2.75	1103	636	19800	2.72			
	3.22	941	543	19800	3.19			
	3.59	846	488	19800	3.55			

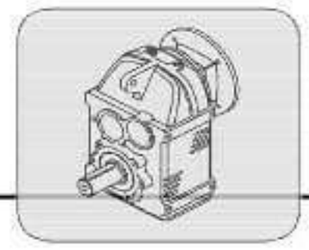


Parallel Shaft Gear Units

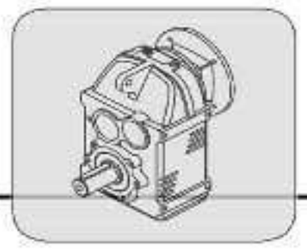
Selection Tables [kW] F..F/..M

1750 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	2.19	1384	799	15700	1.08			
	2.46	1234	712	15700	1.22			
	2.93	1034	596	15700	1.45	**FS77 R37**		66
	3.23	938	541	15700	1.60	**FM77 R37**	**71**	68
	3.63	836	482	15700	1.79	**FN77 R37**		76
	4.20	722	416	15700	2.08	**FH77 R37**		62
	4.78	634	366	15700	2.37			
	5.59	543	313	15700	2.76			
	4.58	662	382	10300	1.24	**FS67 R37**		42
	5.27	575	332	10300	1.43	**FM67 R37**		46
	5.78	524	303	10300	1.56	**FN67 R37**	**71**	48
	6.81	445	257	10300	1.84	**FH67 R37**		40
	7.65	397	229	10300	2.07			
	6.92	438	253	9200	1.37	**FS57 R37**		39
	8.44	359	207	9200	1.67	**FM57 R37**	**71**	45
	9.00	337	194	9200	1.78	**FN57 R37**		46
						FH57 R37		39
	6.59	474	265	9200	1.27			
	7.78	402	225	9200	1.49	**FS57 R37**		38
	8.61	363	203	9200	1.65	**FM57 R37**	**71**	44
	9.92	315	176	9200	1.90	**FN57 R37**		45
	11.48	272	152	9200	2.20	**FH57 R37**		38
	13.05	240	134	9200	2.50			
	10.36	302	169	5920	1.32	**FS47 R17**		25
	11.78	265	149	5920	1.51	**FM47 R17**	**71**	27
	13.38	234	131	5920	1.71	**FN47 R17**		28
						FH47 R17		25
	10.49	307	166.80	15700	4.88	**FS77**		57
	10.92	295	160.23	15700	5.08	**FM77**	**71**	58
	11.86	272	147.56	15700	5.52	**FN77**		66
						FH77		53
	9.32	346	187.70	10300	2.37			
	11.54	279	151.68	10300	2.93			
	13.10	246	133.62	10300	3.33	**FS67**		32
	15.97	202	109.55	10300	3.95	**FM67**	**71**	36
	16.95	190	103.23	10300	4.16	**FN67**		38
	19.64	164	89.11	10300	4.67	**FH67**		30
	22.62	142	77.36	10300	5.25			
	24.85	130	70.42	10300	5.63			
	10.02	322	174.58	9200	1.86			
	12.56	257	139.34	9200	2.34			
	14.30	225	122.42	9200	2.66			
	15.20	212	115.11	9200	2.83	**FS57**		29
	18.42	175	95.01	9200	3.42	**FM57**	**71**	25
	20.48	157	85.46	9200	3.80	**FN57**		36
	23.84	135	73.40	9200	4.44	**FH57**		29
	33.84	95	51.72	9200	6.28			
	27.02	119	64.76	9200	5.02			
	30.76	105	56.90	9200	5.71			
	11.77	274	148.71	5920	1.46			
	14.46	223	121.06	5920	1.79			
	16.68	193	104.91	5920	2.07			
	18.31	176	95.57	5920	2.28			
	20.49	157	85.41	5920	2.54	**FS47**		20
	22.07	146	79.30	5920	2.74	**FM47**		22
	24.57	131	71.21	5920	3.05	**FN47**	**71**	23
	25.95	124	67.43	5920	3.23	**FH47**		20
	28.77	112	60.83	5920	3.57			
	31.28	103	55.95	5920	3.88			



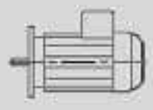
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	34.83	93	50.24	5920	4.33			
	40.78	79	42.91	5920	5.06			
	48.53	66	36.06	5920	5.79			
	13.62	237	128.51	4290	0.85			
	14.85	217	117.88	4290	0.92			
	17.44	185	100.36	4290	1.08			
	21.70	149	80.65	4290	1.35			
	24.82	130	70.50	4290	1.54			
	26.48	122	66.09	4290	1.64	**FS37**		15
	30.01	107	58.32	4290	1.86	**FM37**	**71**	16
	32.09	100	54.54	4290	1.98	**FN37**		17
	33.85	95	51.70	4290	2.10	**FH37**		15
	39.93	81	43.83	4290	2.47			
	45.68	71	38.31	4290	2.83			
	48.73	66	35.91	4290	3.02			
	55.22	58	31.69	4290	3.42			
	62.29	52	28.10	4290	3.85			
	70.85	47	24.70	4290	4.26	**FS37**		15
	88.77	37	19.71	4290	5.34	**FM37**	**71**	16
						FN37		17
						FH37		15
0.55	**1.30**	3459	1343	29900	1.24			
(0.74HP)	**1.54**	2926	1136	29900	1.47			
	1.74	2596	1008	29900	1.66			
	1.95	2312	897	29900	1.86	**FS97 R57**		188
	2.32	1942	754	29900	2.21	**FM97 R57**		203
	2.58	1750	679	29900	2.46	**FN97 R57**	**80**	218
	2.90	1552	603	29900	2.77	**FH97 R57**		178
	3.29	1371	532	29900	3.14			
	3.71	1217	472	29900	3.53			
	4.38	1029	400	29900	4.18			
	4.94	913	355	29900	4.71			
	1.82	2475	961	19800	1.21			
	2.14	2102	816	19800	1.43	**FS87 R57**		118
	2.47	1824	708	19800	1.64	**FM87 R57**		128
	2.75	1639	636	19800	1.83	**FN87 R57**	**80**	138
	3.22	1399	543	19800	2.14	**FH87 R57**		113
	3.59	1257	488	19800	2.39			
	4.74	950	369	19800	3.16			
	3.63	1242	482	15700	1.21	**FS77 R37**		68
	4.20	1073	416	15700	1.40	**FM77 R37**	**80**	70
	4.78	943	366	15700	1.59	**FN77 R37**		78
	5.59	807	313	15700	1.86	**FH77 R37**		64
	6.81	662	257	10300	1.24	**FS67 R37**		44
	7.65	589	229	10300	1.39	**FM67 R37**	**80**	48
	8.61	524	203	10300	1.57	**FN67 R37**		50
	10.08	447	174	10300	1.83	**FH67 R37**		42
	10.49	457	166.80	15700	3.28	**FS77**		59
	10.92	439	160.23	15700	3.42	**FM77**	**80**	60
	11.86	404	147.56	15700	3.71	**FN77**		68
	18.64	257	93.90	15700	5.83	**FH77**		55
	9.32	514	187.70	10300	1.59			
	11.54	415	151.68	10300	1.97			
	13.10	366	133.62	10300	2.24			
	15.97	300	109.55	10300	2.65			
	16.95	283	103.23	10300	2.80	**FS67**		34
	19.64	244	89.11	10300	3.14	**FM67**	**80**	38
	22.62	212	77.36	10300	3.53	**FN67**		40
	24.85	193	70.42	10300	3.79	**FH67**		32

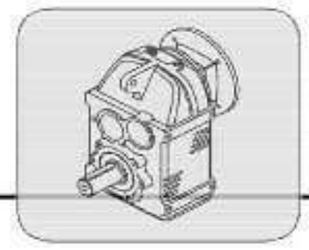


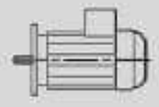
Parallel Shaft Gear Units

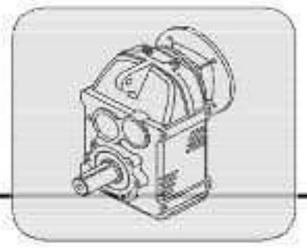
Selection Tables [kW] F..F/..M

1750 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	26.94	178	64.95	10300	4.07			
	30.59	157	57.22	10300	4.51			
	37.31	128	46.91	10300	5.29			
	39.59	121	44.20	10300	5.55			
	10.02	478	174.58	9200	1.25			
	12.56	382	139.34	9200	1.57			
	14.30	335	122.42	9200	1.79			
	15.20	315	115.11	9200	1.90	**FS57**		31
	18.42	260	95.01	9200	2.30	**FM57**		27
	20.48	234	85.46	9200	2.56	**FN57**	**80**	38
	23.84	201	73.40	9200	2.99	**FH57**		31
	33.84	142	51.72	9200	4.23			
	27.02	177	64.76	9200	3.38			
	30.76	156	56.90	9200	3.84			
	44.06	109	39.72	9200	5.40			
	11.77	407	148.71	5920	0.98			
	14.46	331	121.06	5920	1.21			
	16.68	287	104.91	5920	1.39			
	18.31	262	95.57	5920	1.53			
	20.49	234	85.41	5920	1.71			
	22.07	217	79.30	5920	1.84			
	24.57	195	71.21	5920	2.05	**FS47**		22
	25.95	185	67.43	5920	2.17	**FM47**	**80**	24
	28.77	167	60.83	5920	2.40	**FN47**		25
	31.28	153	55.95	5920	2.61	**FH47**		22
	34.83	138	50.24	5920	2.91			
	40.78	117	42.91	5920	3.40			
	48.53	99	36.06	5920	3.90			
	54.05	89	32.38	5920	4.17			
	57.08	84	30.66	5920	4.31			
	68.80	70	25.44	5920	4.83			
	70.68	70	24.76	5920	5.30	**FS47**		22
						FM47	**80**	24
						FN47		25
						FH47		22
	21.70	221	80.65	4290	0.91			
	24.82	193	70.50	4290	1.04			
	26.48	181	66.09	4290	1.11			
	30.01	160	58.32	4290	1.25	**FS37**		17
	32.09	149	54.54	4290	1.34	**FM37**		18
	33.85	142	51.70	4290	1.41	**FN37**	**80**	19
	39.93	120	43.83	4290	1.66	**FH37**		17
	45.68	105	38.31	4290	1.91			
	48.73	98	35.91	4290	2.03			
	55.22	87	31.69	4290	2.30			
	62.29	77	28.10	4290	2.59			
	70.85	70	24.70	4290	2.87	**FS37**		17
	88.77	56	19.71	4245	3.59	**FM37**		18
	101.04	49	17.32	4105	4.09	**FN37**	**80**	19
	107.46	46	16.29	4040	4.35	**FH37**		17
	144.74	34	12.09	3720	5.85			
0.75	**1.74**	3540	1008	29900	1.21			
(1HP)	**1.95**	3152	897	29900	1.36			
	2.32	2648	754	29900	1.62	**FS97 R57**		188
	2.58	2386	679	29900	1.80	**FM97 R57**		203
	2.90	2117	603	29900	2.03	**FN97 R57**	**80**	218
	3.29	1870	532	29900	2.30	**FH97 R57**		178
	3.71	1659	472	29900	2.59			
	4.38	1404	400	29900	3.06			



Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	4.94	1245	355	29900	3.45			
	2.47	2487	708	19800	1.21	**FS87 R57**		118
	2.75	2235	636	19800	1.34	**FM87 R57**		128
	3.22	1908	543	19800	1.57	**FN87 R57**	**80**	138
	3.59	1714	488	19800	1.75	**FH87 R57**		113
	4.74	1296	369	19800	2.32			
	4.78	1285	366	15700	1.17	**FS77 R37**		68
	5.59	1100	313	15700	1.36	**FM77 R37**	**80**	70
	6.22	988	281	15700	1.52	**FN77 R37**		78
						FH77 R37		64
	10.78	606	162.37	19800	4.95	**FS87**		97
	12.40	527	141.09	19800	5.70	**FM87**	**80**	107
						FN87		117
						FH87		92
	10.49	623	166.80	15700	2.41			
	10.92	598	160.23	15700	2.51	**FS77**		59
	11.86	551	147.56	15700	2.72	**FM77**	**80**	60
	18.64	351	93.90	15700	4.27	**FN77**		68
	20.92	312	83.63	15700	4.79	**FH77**		55
	23.33	280	75.02	15700	5.36			
	9.32	701	187.70	10300	1.17			
	11.54	566	151.68	10300	1.45			
	13.10	499	133.62	10300	1.64			
	15.97	409	109.55	10300	1.95			
	16.95	385	103.23	10300	2.05			
	19.64	333	89.11	10300	2.30	**FS67**		34
	22.62	289	77.36	10300	2.59	**FM67**		38
	24.85	263	70.42	10300	2.78	**FN67**	**80**	40
	26.94	242	64.95	10300	2.98	**FH67**		32
	30.59	214	57.22	10300	3.31			
	37.31	175	46.91	10300	3.88			
	39.59	165	44.20	10300	4.07			
	45.86	142	38.16	10300	4.59			
	52.83	124	33.12	10300	5.15			
	58.03	113	30.15	10300	5.55			
	61.54	109	28.44	10300	5.65	**FS67**		35
						FM67	**80**	39
						FN67		41
						FH67		33
	10.02	652	174.58	9200	0.92			
	12.56	520	139.34	9200	1.15			
	14.30	457	122.42	9200	1.31			
	15.20	430	115.11	9200	1.40			
	18.42	355	95.01	9200	1.69	**FS57**		31
	20.48	319	85.46	9200	1.88	**FM57**	**80**	27
	23.84	274	73.40	9200	2.19	**FN57**		38
	33.84	193	51.72	9200	3.10	**FH57**		31
	27.02	242	64.76	9200	2.48			
	30.76	212	56.90	9200	2.82			
	44.06	148	39.72	9200	3.96			
	51.30	127	34.11	9200	4.49			
	14.46	452	121.06	5920	0.89			
	16.68	392	104.91	5920	1.02			
	18.31	357	95.57	5920	1.12			
	20.49	319	85.41	5920	1.26			
	22.07	296	79.30	5920	1.35			
	24.57	266	71.21	5920	1.50	**FS47**		22
	25.95	252	67.43	5920	1.59	**FM47**		24
	28.77	227	60.83	5920	1.76	**FN47**	**80**	25

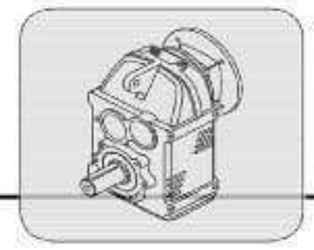


Parallel Shaft Gear Units

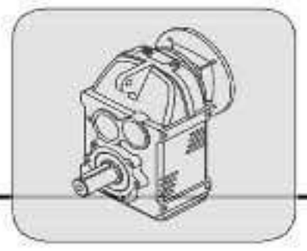
Selection Tables [kW] F..F/..M

1750 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
0.12	**0.27**	3499	6417	29900	1.23	**FS97 R57**		187
(0.16HP)	**0.31**	3079	5648	29900	1.40	**FM97 R57**	**63**	202
	0.35	2752	5047	29900	1.56	**FN97 R57**		217
	0.40	2380	4366	29900	1.81	**FH97 R57**		177
	0.43	2294	4081	29900	1.87	**FS97 R57**		182
	0.53	1853	3296	29900	2.32	**FM97 R57**	**63**	197
	0.59	1673	2977	29900	2.57	**FN97 R57**		212
	0.68	1450	2580	29900	2.97	**FH97 R57**		172
	0.41	2322	4258	19800	1.29	**FS87 R57**		117
	0.47	2033	3729	19800	1.48	**FM87 R57**	**63**	127
						FN87 R57		137
						FH87 R57		112
	0.55	1804	3209	19800	1.66			
	0.61	1604	2853	19800	1.87			
	0.68	1443	2567	19800	2.08	**FS87 R57**		112
	0.82	1203	2140	19800	2.49	**FM87 R57**		122
	0.92	1072	1907	19800	2.80	**FN87 R57**	**63**	132
	1.02	961	1710	19800	3.12	**FH87 R57**		107
	1.22	805	1433	19800	3.73			
	1.40	702	1249	19800	4.27			
	1.55	633	1126	19800	4.74			
	0.67	1428	2619	15700	1.05	**FS77 R37**		66
	0.75	1268	2326	15700	1.18	**FM77 R37**	**63**	68
	0.84	1133	2079	15700	1.32	**FN77 R37**		76
						FH77 R37		62
	1.01	970	1726	15700	1.55			
	1.06	926	1647	15700	1.62	**FS77 R37**		65
	1.22	805	1432	15700	1.86	**FM77 R37**		66
	1.31	751	1336	15700	2.00	**FN77 R37**	**63**	74
	1.51	653	1161	15700	2.30	**FH77 R37**		61
	1.62	606	1078	15700	2.48			
	1.96	503	894	15700	2.98			
	1.22	806	1433	10300	1.02			
	1.36	723	1287	10300	1.13			
	1.57	625	1112	10300	1.31			
	1.73	569	1012	10300	1.44	**FS67 R37**		42
	2.06	477	848	10300	1.72	**FM67 R37**	**63**	46
	2.34	420	746	10300	1.95	**FN67 R37**		48
	2.69	366	651	10300	2.24	**FH67 R37**		40
	3.06	322	572	10300	2.55			
	3.41	288	513	10300	2.84			
	4.00	246	437	10300	3.34			
	2.06	477	848	9200	1.26			
	2.38	413	735	9200	1.45	**FS57 R37**		39
	2.69	365	650	9200	1.64	**FM57 R37**	**63**	45
	3.17	310	551	9200	1.94	**FN57 R37**		46
	3.54	278	494	9200	2.16	**FH57 R37**		39
	3.92	251	446	9200	2.39			
	4.14	245	423	9200	2.45	**FS57 R37**		38
	4.59	221	382	9200	2.71	**FM57 R37**		44
	5.29	192	331	9200	3.13	**FN57 R37**	**63**	45
	5.81	175	301	9200	3.44	**FH57 R37**		38
	6.59	154	265	9200	3.90			
	3.22	305	543	5920	1.31	**FS47 R17**		25
	3.67	268	476	5920	1.49	**FM47 R17**	**63**	27
	4.20	234	417	5920	1.71	**FN47 R17**		28
						FH47 R17		25
	4.71	215	372	5920	1.86	**FS47 R17**		25
	5.36	189	327	5920	2.11	**FM47 R17**	**63**	27



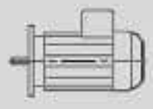
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	13.10	732	133.62	10300	1.12			
	15.97	600	109.55	10300	1.33			
	16.95	565	103.23	10300	1.40			
	19.64	488	89.11	10300	1.57	**FS67**		34
	22.62	424	77.36	10300	1.76	**FM67**		38
	24.85	386	70.42	10300	1.89	**FN67**	**90**	40
	26.94	356	64.95	10300	2.03	**FH67**		32
	30.59	313	57.22	10300	2.26			
	37.31	257	46.91	10300	2.65			
	39.59	242	44.20	10300	2.78			
	45.86	209	38.16	10300	3.13			
	52.83	181	33.12	10300	3.51			
	58.03	165	30.15	10300	3.79			
	61.54	161	28.44	10300	3.86	**FS67**		35
						FM67	**90**	39
						FN67		41
						FH67		33
	14.30	670	122.42	9200	0.89			
	15.20	630	115.11	9200	0.95			
	18.42	520	95.01	9200	1.15			
	20.48	468	85.46	9200	1.28	**FS57**		31
	23.84	402	73.40	9200	1.49	**FM57**		27
	33.84	283	51.72	9200	2.11	**FN57**	**90**	38
	27.02	355	64.76	9200	1.69	**FH57**		31
	30.76	312	56.90	9200	1.92			
	44.06	217	39.72	9200	2.70			
	51.30	187	34.11	9200	3.06			
	72.81	132	24.04	9065	4.17			
	66.13	149	26.46	9200	3.67	**FS57**		32
	75.07	132	23.31	8965	4.19	**FM57**	**90**	28
	91.57	108	19.11	8485	5.12	**FN57**		39
	97.18	102	18.01	8345	5.44	**FH57**		32
	20.49	468	85.41	5920	0.86			
	22.07	434	79.30	5920	0.92			
	24.57	390	71.21	5920	1.03			
	25.95	369	67.43	5920	1.09			
	28.77	333	60.83	5920	1.20	**FS47**		22
	31.28	306	55.95	5920	1.31	**FM47**	**90**	24
	34.83	275	50.24	5920	1.46	**FN47**		25
	40.78	235	42.91	5920	1.70	**FH47**		22
	48.53	197	36.06	5920	1.95			
	54.05	177	32.38	5920	2.08			
	57.08	168	30.66	5920	2.16			
	68.80	139	25.44	5920	2.41			
	70.68	140	24.76	5920	2.65			
	80.45	123	21.75	5920	3.02			
	85.56	115	20.45	5870	3.22			
	115.24	86	15.19	5460	4.35	**FS47**		22
	134.17	74	13.04	5250	5.09	**FM47**	**90**	24
	155.45	64	11.26	4940	3.82	**FN47**		25
	176.94	56	9.89	4775	4.13	**FH47**		22
	188.17	53	9.30	4700	4.28			
	253.46	39	6.90	4335	5.11			
	295.09	33	5.93	4155	5.62			
	39.93	240	43.83	4105	0.83	**FS37**		17
	45.68	210	38.31	4095	0.95	**FM37**		18
	48.73	197	35.91	4085	1.02	**FN37**	**90**	19
	55.22	174	31.69	4045	1.15	**FH37**		17
	62.29	154	28.10	3995	1.30			

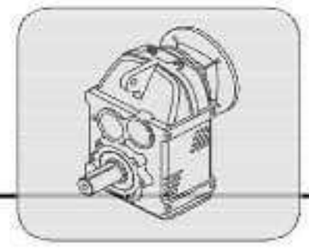


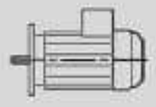
Parallel Shaft Gear Units

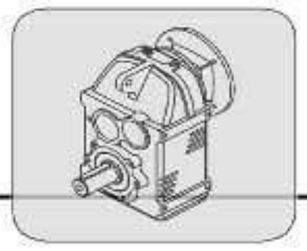
Selection Tables [kW] F..F/..M

1750 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	70.85	139	24.70	3895	1.43			
	88.77	111	19.71	3770	1.80			
	101.04	98	17.32	3685	2.05	**FS37**		17
	107.46	92	16.29	3645	2.17	**FM37**		18
	144.74	68	12.09	3430	2.93	**FN37**	**90**	19
	168.51	59	10.39	3315	3.42	**FH37**		17
	188.85	52	9.27	3115	2.62			
	214.96	46	8.14	3025	2.84			
	307.92	32	5.68	2780	3.54			
1.5	**3.29**	3740	532	29900	1.15	**FS97 R57**		188
(2HP)	**3.71**	3318	472	29900	1.30	**FM97 R57**	**90**	203
	4.38	2808	400	29900	1.53	**FN97 R57**		218
	4.94	2491	355	29900	1.73	**FH97 R57**		178
	5.46	2253	321	19800	1.33	**FS87 R57**		118
	7.08	1736	247	19800	1.73	**FM87 R57**	**90**	128
						FN87 R57		138
						FH87 R57		113
	10.29	1270	170.08	29900	3.39			
	11.67	1120	149.98	29900	3.84	**FS97**		169
	12.78	1023	136.95	29900	4.21	**FM97**	**90**	184
	15.99	817	109.42	29900	5.27	**FN97**		199
	15.00	871	116.67	29900	4.95	**FH97**		159
	17.74	737	98.66	29900	5.84			
	10.78	1212	162.37	19800	2.48			
	12.40	1054	141.09	19800	2.85			
	16.09	812	108.77	19800	3.70	**FS87**		97
	17.04	767	102.70	19800	3.91	**FM87**	**90**	107
	18.95	689	92.34	19800	4.35	**FN87**		117
	21.00	622	83.32	19800	4.82	**FH87**		92
	22.24	587	78.67	19800	5.10			
	24.74	528	70.73	19800	5.56			
	10.49	1246	166.80	15700	1.20			
	10.92	1196	160.23	15700	1.25			
	11.86	1102	147.56	15700	1.36			
	18.64	701	93.90	15700	2.14	**FS77**		59
	20.92	625	83.63	15700	2.40	**FM77**	**90**	60
	23.33	560	75.02	15700	2.68	**FN77**		68
	29.47	443	59.38	15700	3.38	**FH77**		55
	32.86	398	53.26	15700	3.77			
	35.69	366	49.04	15700	4.10			
	42.00	311	41.67	15700	4.81			
	13.10	998	133.62	10300	0.82			
	15.97	818	109.55	10300	0.97			
	16.95	771	103.23	10300	1.03			
	19.64	665	89.11	10300	1.15			
	22.62	578	77.36	10300	1.29	**FS67**		34
	24.85	526	70.42	10300	1.39	**FM67**		38
	26.94	485	64.95	10300	1.49	**FN67**	**90**	40
	30.59	427	57.22	10300	1.65	**FH67**		32
	37.31	350	46.91	10300	1.94			
	39.59	330	44.20	10300	2.04			
	45.86	285	38.16	10300	2.29			
	52.83	247	33.12	10300	2.57			
	58.03	225	30.15	10300	2.78			
	61.54	219	28.44	10300	2.83	**FS67**		35
	96.71	139	18.10	10300	4.46	**FM67**	**90**	39
	108.59	124	16.12	10300	5.01	**FN67**		41
	121.05	111	14.46	10300	5.61	**FH67**		33
	18.42	709	95.01	9200	0.84			



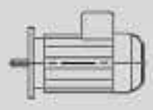
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	20.48	638	85.46	9200	0.94			
	23.84	548	73.40	9200	1.10	**FS57**		31
	33.84	386	51.72	9200	1.55	**FM57**		27
	27.02	484	64.76	9200	1.24	**FN57**	**90**	38
	30.76	425	56.90	9200	1.41	**FH57**		31
	44.06	297	39.72	9200	1.98			
	51.30	255	34.11	9200	2.24			
	72.81	179	24.04	8770	3.06			
	66.13	204	26.46	8945	2.69			
	75.07	179	23.31	8670	3.07	**FS57**		32
	91.57	147	19.11	8245	3.75	**FM57**		28
	97.18	139	18.01	8115	3.99	**FN57**	**90**	39
	112.57	120	15.55	7805	4.64	**FH57**		32
	129.67	104	13.50	7510	5.36			
	142.44	95	12.29	7315	5.88			
	25.95	503	67.43	5920	0.80			
	28.77	454	60.83	5920	0.88			
	31.28	418	55.95	5920	0.96	**FS47**		22
	34.83	375	50.24	5920	1.07	**FM47**		24
	40.78	320	42.91	5920	1.25	**FN47**	**90**	25
	48.53	269	36.06	5665	1.43	**FH47**		22
	54.05	242	32.38	5630	1.53			
	57.08	229	30.66	5605	1.58			
	68.80	190	25.44	5500	1.77			
	70.68	191	24.76	5750	1.94			
	80.45	167	21.75	5620	2.21			
	85.56	157	20.45	5555	2.36			
	115.24	117	15.19	5225	3.19	**FS47**		22
	134.17	100	13.04	5045	3.73	**FM47**		24
	155.45	87	11.26	4725	2.80	**FN47**	**90**	25
	176.94	76	9.89	4590	3.03	**FH47**		22
	188.17	72	9.30	4525	3.14			
	253.46	53	6.90	4205	3.75			
	295.09	46	5.93	4040	4.12			
	418.83	32	4.18	3675	5.10			
	55.22	237	31.69	3505	0.84	**FS37**		17
	62.29	210	28.10	3515	0.95	**FM37**	**90**	18
						FN37		19
						FH37		17
	70.85	190	24.70	3460	1.05			
	88.77	152	19.71	3420	1.32			
	101.04	133	17.32	3380	1.50	**FS37**		17
	107.46	125	16.29	3355	1.59	**FM37**		18
	144.74	93	12.09	3215	2.15	**FN37**	**90**	19
	168.51	80	10.39	3130	2.51	**FH37**		17
	188.85	71	9.27	2910	1.92			
	214.96	63	8.14	2845	2.08			
	307.92	44	5.68	2650	2.59			
2.2	**6.20**	2910	282	29900	1.48	**FS97 R57**		191
(3HP)	**6.96**	2591	251	29900	1.66	**FM97 R57**	**100**	206
						FN97 R57		221
						FH97 R57		181
	10.29	1863	170.08	29900	2.31			
	11.67	1643	149.98	29900	2.62			
	12.78	1500	136.95	29900	2.87	**FS97**		172
	15.99	1198	109.42	29900	3.59	**FM97**		187
	15.00	1278	116.67	29900	3.37	**FN97**	**100**	202
	17.74	1081	98.66	29900	3.98	**FH97**		162
	20.02	957	87.40	29900	4.49			

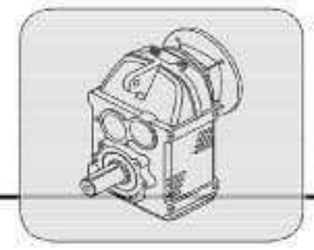


Parallel Shaft Gear Units

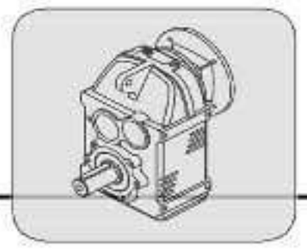
Selection Tables [kW] F..F/..M

1750 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	22.46	853	77.93	29900	4.95			
	27.12	707	64.52	29900	5.76			
	10.78	1778	162.37	19800	1.69			
	12.40	1545	141.09	19800	1.94			
	16.09	1191	108.77	19800	2.52			
	17.04	1125	102.70	19800	2.67			
	18.95	1011	92.34	19800	2.97	**FS87**		100
	21.00	913	83.32	19800	3.29	**FM87**	**100**	110
	22.24	862	78.67	19800	3.48	**FN87**		120
	24.74	775	70.73	19800	3.79	**FH87**		95
	28.34	676	61.76	19800	4.23			
	32.72	586	53.48	19800	3.57			
	37.66	509	46.47	19800	4.08			
	48.85	392	35.83	19800	5.32			
	10.49	1827	166.80	15700	0.82			
	10.92	1755	160.23	15700	0.85			
	11.86	1616	147.56	15700	0.93			
	18.64	1028	93.90	15700	1.46	**FS77**		62
	20.92	916	83.63	15700	1.63	**FM77**		63
	23.33	822	75.02	15700	1.83	**FN77**	**100**	71
	29.47	650	59.38	15700	2.30	**FH77**		58
	32.86	583	53.26	15700	2.57			
	35.69	537	49.04	15700	2.79			
	42.00	456	41.67	15700	3.28			
	56.00	342	31.25	15700	4.38			
	70.77	279	24.73	15700	5.37	**FS77**		63
						FM77	**100**	65
						FN77		73
						FH77		59
	22.62	847	77.36	10300	0.88			
	24.85	771	70.42	10300	0.95			
	26.94	711	64.95	10300	1.02	**FS67**		37
	30.59	627	57.22	10300	1.13	**FM67**		41
	37.31	514	46.91	10300	1.32	**FN67**	**100**	43
	39.59	484	44.20	10300	1.39	**FH67**		35
	45.86	418	38.16	10300	1.56			
	52.83	363	33.12	10300	1.76			
	58.03	330	30.15	10300	1.89			
	61.54	321	28.44	10300	1.93			
	96.71	204	18.10	10300	3.04	**FS67**		38
	108.59	182	16.12	10300	3.42	**FM67**	**100**	42
	121.05	163	14.46	10300	3.83	**FN67**		44
	131.48	150	13.31	10300	4.16	**FH67**		36
	154.74	128	11.31	10300	4.90			
	33.84	566	51.72	9200	1.06			
	27.02	709	64.76	9200	0.84	**FS57**		34
	30.76	623	56.90	9200	0.96	**FM57**	**100**	30
	44.06	435	39.72	8995	1.35	**FN57**		41
	51.30	374	34.11	8800	1.53	**FH57**		34
	72.81	263	24.04	8255	2.08			
	66.13	299	26.46	8360	1.84			
	75.07	263	23.31	8155	2.09			
	91.57	216	19.11	7820	2.56			
	97.18	203	18.01	7720	2.72	**FS57**		35
	112.57	176	15.55	7460	3.16	**FM57**		31
	129.67	152	13.50	7210	3.65	**FN57**	**100**	42
	142.44	139	12.29	7040	4.01	**FH57**		35
	154.12	128	11.35	6780	4.69			
	188.00	105	9.31	6450	5.24			



Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	199.51	99	8.77	6355	5.47			
	231.11	85	7.57	6115	5.99			
	40.78	470	42.91	5090	0.85	**FS47**		24
	48.53	395	36.06	4505	0.97	**FM47**		26
	54.05	355	32.38	4590	1.04	**FN47**	**100**	27
	57.08	336	30.66	4620	1.08	**FH47**		24
	68.80	279	25.44	4685	1.21			
	70.68	280	24.76	5080	1.32			
	80.45	246	21.75	5030	1.51			
	85.56	231	20.45	5000	1.61			
	115.24	171	15.19	4815	2.18	**FS47**		24
	134.17	147	13.04	4695	2.55	**FM47**		26
	155.45	127	11.26	4355	1.91	**FN47**	**100**	27
	176.94	112	9.89	4260	2.06	**FH47**		24
	188.17	105	9.30	4215	2.14			
	253.46	78	6.90	3975	2.56			
	295.09	67	5.93	3845	2.81			
	418.83	47	4.18	3535	3.48			
	88.77	223	19.71	2815	0.90			
	101.04	196	17.32	2845	1.02			
	107.46	184	16.29	2855	1.09	**FS37**		19
	144.74	137	12.09	2845	1.46	**FM37**	**100**	20
	168.51	117	10.39	2810	1.71	**FN37**		21
	188.85	105	9.27	2550	1.31	**FH37**		19
	214.96	92	8.14	2535	1.42			
	307.92	64	5.68	2435	1.77			
3	**10.29**	2540	170.08	29900	1.69			
(4HP)	**11.67**	2240	149.98	29900	1.92			
	12.78	2045	136.95	29900	2.10			
	15.99	1634	109.42	29900	2.63			
	15.00	1742	116.67	29900	2.47	**FS97**		172
	17.74	1473	98.66	29900	2.92	**FM97**	**100**	187
	20.02	1305	87.40	29900	3.29	**FN97**		202
	22.46	1164	77.93	29900	3.63	**FH97**		162
	27.12	964	64.52	29900	4.23			
	30.62	853	57.15	29900	4.66			
	34.34	761	50.96	29900	5.12			
	38.30	682	45.69	29900	5.60			
	10.78	2425	162.37	19800	1.24			
	12.40	2107	141.09	19800	1.42			
	16.09	1624	108.77	19800	1.85			
	17.04	1534	102.70	19800	1.96			
	18.95	1379	92.34	19800	2.18	**FS87**		100
	21.00	1244	83.32	19800	2.41	**FM87**		110
	22.24	1175	78.67	19800	2.55	**FN87**	**100**	120
	24.74	1056	70.73	19800	2.78	**FH87**		95
	28.34	922	61.76	19800	3.10			
	32.72	799	53.48	19800	2.62			
	37.66	694	46.47	19800	2.99			
	48.85	535	35.83	19800	3.90			
	70.04	373	24.98	19800	5.63			
	18.64	1402	93.90	15700	1.07			
	20.92	1249	83.63	15700	1.20			
	23.33	1120	75.02	15700	1.34	**FS77**		62
	29.47	887	59.38	15700	1.69	**FM77**	**100**	63
	32.86	795	53.26	15700	1.89	**FN77**		71
	35.69	732	49.04	15700	2.05	**FH77**		58
	42.00	622	41.67	15700	2.41			
	56.00	467	31.25	15700	3.21			

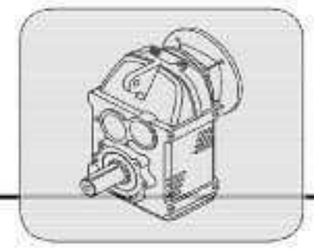


Parallel Shaft Gear Units

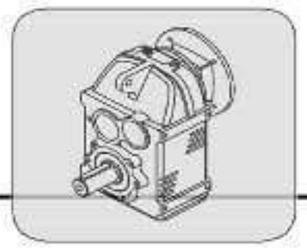
Selection Tables [kW] F..F/..M

1750 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	70.77	381	24.73	15700	3.94	**FS77**		63
	81.45	331	21.49	15700	4.53	**FM77**	**100**	65
	105.65	255	16.56	15700	5.88	**FN77**		73
						FH77		59
	30.59	854	57.22	10300	0.83			
	37.31	701	46.91	10300	0.97	**FS67**		37
	39.59	660	44.20	10300	1.02	**FM67**	**100**	41
	45.86	570	38.16	10300	1.15	**FN67**		43
	52.83	495	33.12	10300	1.29	**FH67**		35
	58.03	450	30.15	10300	1.39			
	61.54	438	28.44	10300	1.41			
	96.71	279	18.10	10300	2.23			
	108.59	248	16.12	10300	2.51	**FS67**		38
	121.05	223	14.46	10300	2.81	**FM67**		42
	131.48	205	13.31	10300	3.05	**FN67**	**100**	44
	154.74	174	11.31	10300	3.60	**FH67**		36
	206.32	131	8.48	9730	4.84			
	264.15	102	6.63	9020	5.31			
	294.47	91	5.94	8750	5.74			
	44.06	593	39.72	8025	0.99	**FS57**		34
	51.30	509	34.11	7960	1.12	**FM57**	**100**	30
	72.81	359	24.04	7665	1.53	**FN57**		41
						FH57		34
	66.13	407	26.46	7690	1.35			
	75.07	359	23.31	7565	1.54			
	91.57	294	19.11	7335	1.88			
	97.18	277	18.01	7260	2.00			
	112.57	239	15.55	7065	2.32	**FS57**		35
	129.67	208	13.50	6865	2.68	**FM57**		31
	142.44	189	12.29	6730	2.94	**FN57**	**100**	42
	154.12	175	11.35	6450	3.44	**FH57**		35
	188.00	143	9.31	6180	3.84			
	199.51	135	8.77	6100	4.01			
	231.11	117	7.57	5895	4.39			
	266.23	101	6.57	5690	4.80			
	292.44	92	5.98	5560	5.08			
	57.08	458	30.66	3495	0.79	**FS47**		24
	68.80	380	25.44	3750	0.89	**FM47**	**100**	26
						FN47		27
						FH47		24
	70.68	381	24.76	4315	0.97			
	80.45	335	21.75	4360	1.11			
	85.56	315	20.45	4370	1.18			
	115.24	234	15.19	4345	1.60	**FS47**		24
	134.17	201	13.04	4290	1.87	**FM47**		26
	155.45	173	11.26	3930	1.40	**FN47**	**100**	27
	176.94	152	9.89	3890	1.51	**FH47**		24
	188.17	143	9.30	3865	1.57			
	253.46	106	6.90	3715	1.88			
	295.09	91	5.93	3620	2.06			
	418.83	64	4.18	3380	2.55			
	107.46	251	16.29	2280	0.80			
	144.74	186	12.09	2415	1.07	**FS37**		19
	168.51	160	10.39	2445	1.25	**FM37**	**100**	20
	188.85	143	9.27	2145	0.96	**FN37**		21
	214.96	125	8.14	2175	1.04	**FH37**		19
	307.92	88	5.68	2185	1.30			
4	**10.29**	3387	170.08	29900	1.27			
(5.4HP)	**11.67**	2987	149.98	29900	1.44			



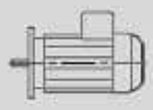
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	12.78	2727	136.95	29900	1.58			
	15.99	2179	109.42	29900	1.98			
	15.00	2323	116.67	29900	1.85	**FS97**		172
	17.74	1965	98.66	29900	2.19	**FM97**		187
	20.02	1740	87.40	29900	2.47	**FN97**	**112**	202
	22.46	1552	77.93	29900	2.72	**FH97**		162
	27.12	1285	64.52	29900	3.17			
	30.62	1138	57.15	29900	3.49			
	34.34	1015	50.96	29900	3.84			
	38.30	910	45.69	29900	4.20			
	51.92	671	33.70	29080	5.37			
	54.04	665	32.38	28730	5.40	**FS97**		177
	60.59	593	28.88	27915	5.93	**FM97**	**112**	192
						FN97		207
						FH97		167
	10.78	3233	162.37	19800	0.93			
	12.40	2809	141.09	19800	1.07			
	16.09	2166	108.77	19800	1.39			
	17.04	2045	102.70	19800	1.47			
	18.95	1839	92.34	19800	1.63			
	21.00	1659	83.32	19800	1.81	**FS87**		100
	22.24	1567	78.67	19800	1.91	**FM87**	**112**	110
	24.74	1408	70.73	19800	2.09	**FN87**		120
	28.34	1230	61.76	19800	2.32	**FH87**		95
	32.72	1065	53.48	19800	1.96			
	37.66	925	46.47	19800	2.24			
	48.85	713	35.83	19800	2.93			
	70.04	498	24.98	19800	4.22			
	89.24	390	19.61	18840	5.41			
	54.32	661	32.21	19800	3.84	**FS87**		105
	61.60	583	28.41	19800	4.26	**FM87**		115
	67.47	532	25.94	19800	4.59	**FN87**	**112**	125
	79.19	454	22.10	19635	5.34	**FH87**		100
	84.44	425	20.73	19330	5.69			
	18.64	1870	93.90	15700	0.80			
	20.92	1665	83.63	15700	0.90			
	23.33	1494	75.02	15700	1.00	**FS77**		62
	29.47	1182	59.38	15700	1.27	**FM77**	**112**	63
	32.86	1061	53.26	15700	1.41	**FN77**		71
	35.69	976	49.04	15700	1.54	**FH77**		58
	42.00	830	41.67	15700	1.80			
	56.00	622	31.25	15700	2.41			
	70.77	508	24.73	15700	2.96			
	81.45	441	21.49	15700	3.40	**FS77**		63
	105.65	340	16.56	15700	4.41	**FM77**	**112**	65
	111.89	321	15.64	15700	4.67	**FN77**		73
	124.45	289	14.06	15700	5.20	**FH77**		59
	142.53	252	12.28	15700	5.94			
	45.86	760	38.16	10300	0.86	**FS67**		37
	52.83	660	33.12	10300	0.97	**FM67**	**112**	41
	58.03	600	30.15	10300	1.04	**FN67**		43
						FH67		35
	61.54	584	28.44	10300	1.06			
	96.71	371	18.10	10300	1.67			
	108.59	331	16.12	10300	1.88			
	121.05	297	14.46	10300	2.10	**FS67**		38
	131.48	273	13.31	10300	2.29	**FM67**	**112**	42
	154.74	232	11.31	10300	2.70	**FN67**		44
	206.32	174	8.48	9615	3.63	**FH67**		36

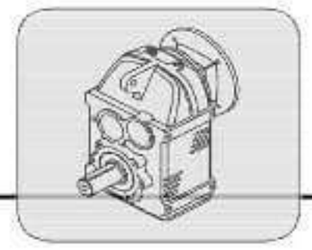


Parallel Shaft Gear Units

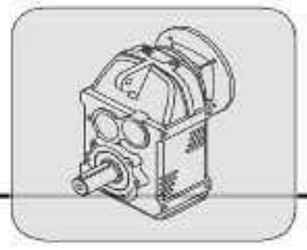
Selection Tables [kW] F..F/..M

1750 Input Rpm

Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	264.15	136	6.63	8905	3.99			
	294.47	122	5.94	8650	4.31			
	319.83	112	5.47	8460	4.57			
	51.30	679	34.11	6915	0.84	**FS57**		34
	72.81	479	24.04	6930	1.15	**FM57**	**112**	30
						FN57		41
						FH57		34
	66.13	543	26.46	6855	1.01			
	75.07	479	23.31	6830	1.15			
	91.57	392	19.11	6735	1.41			
	97.18	370	18.01	6695	1.50			
	112.57	319	15.55	6575	1.74	**FS57**		35
	129.67	277	13.50	6440	2.01	**FM57**		31
	142.44	252	12.29	6345	2.21	**FN57**	**112**	42
	154.12	233	11.35	6035	2.58	**FH57**		35
	188.00	191	9.31	5840	2.88			
	199.51	180	8.77	5780	3.01			
	231.11	155	7.57	5615	3.29			
	266.23	135	6.57	5450	3.60			
	292.44	123	5.98	5340	3.81			
5.5 (7.4HP)	**10.29**	4657	170.08	29900	0.92			
	11.67	4106	149.98	29900	1.05			
	12.78	3750	136.95	29900	1.15			
	15.99	2996	109.42	29900	1.44			
	15.00	3194	116.67	29900	1.35	**FS97**		177
	17.74	2701	98.66	29900	1.59	**FM97**		192
	20.02	2393	87.40	29900	1.80	**FN97**	**132S**	207
	22.46	2134	77.93	29900	1.98	**FH97**		167
	27.12	1766	64.52	29900	2.30			
	30.62	1565	57.15	29900	2.54			
	34.34	1395	50.96	29900	2.79			
	38.30	1251	45.69	29900	3.05			
	51.92	923	33.70	28305	3.91			
	54.04	914	32.38	27960	3.92	**FS97**		182
	60.59	815	28.88	27230	4.31	**FM97**	**132S**	197
	77.01	641	22.72	25700	5.25	**FN97**		212
						FH97		172
	16.09	2978	108.77	19800	1.01			
	17.04	2812	102.70	19800	1.07			
	18.95	2528	92.34	19800	1.19			
	21.00	2281	83.32	19800	1.31			
	22.24	2154	78.67	19800	1.39	**FS87**		106
	24.74	1937	70.73	19800	1.52	**FM87**	**132S**	116
	28.34	1691	61.76	19800	1.69	**FN87**		126
	32.72	1464	53.48	19800	1.43	**FH87**		101
	37.66	1272	46.47	19800	1.63			
	48.85	981	35.83	19800	2.13			
	70.04	684	24.98	19125	3.07			
	89.24	537	19.61	18205	3.94			
	54.32	909	32.21	19800	2.80			
	61.60	802	28.41	19800	3.10			
	67.47	732	25.94	19685	3.34	**FS87**		111
	79.19	624	22.10	19025	3.88	**FM87**	**132S**	121
	84.44	585	20.73	18760	4.14	**FN87**		131
	93.65	527	18.69	18330	4.60	**FH87**		106
	105.72	467	16.55	17820	5.20			
	118.56	417	14.76	17345	5.86			
	29.47	1626	59.38	15700	0.92	**FS77**		68
	32.86	1458	53.26	15700	1.03	**FM77**		69



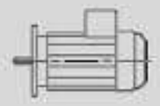
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	35.69	1343	49.04	15700	1.12	**FN77**	**132S**	77
	42.00	1141	41.67	15700	1.31	**FH77**		64
	56.00	856	31.25	15700	1.75			
	70.77	698	24.73	15700	2.15			
	81.45	606	21.49	15700	2.47			
	105.65	468	16.56	15700	3.21	**FS77**		69
	111.89	441	15.64	15700	3.40	**FM77**		71
	124.45	397	14.06	15700	3.78	**FN77**	**132S**	79
	142.53	347	12.28	15700	4.32	**FH77**		65
	193.01	256	9.07	15610	5.86			
	223.39	221	7.83	14860	5.57			
	236.59	209	7.40	14650	5.78			
	96.71	511	18.10	10300	1.22			
	108.59	455	16.12	10300	1.37			
	121.05	408	14.46	10300	1.53	**FS67**		44
	131.48	376	13.31	10300	1.67	**FM67**		48
	154.74	319	11.31	10140	1.96	**FN67**	**132S**	50
	206.32	239	8.48	9445	2.64	**FH67**		42
	264.15	187	6.63	8735	2.90			
	294.47	168	5.94	8500	3.13			
	319.83	154	5.47	8325	3.32			
	72.81	658	24.04	5825	0.83	**FS57**		40
						FM57		36
						FN57	**132S**	47
						FH57		40
	75.07	658	23.31	5725	0.84			
	91.57	539	19.11	5825	1.02			
	97.18	508	18.01	5840	1.09			
	112.57	439	15.55	5840	1.26			
	129.67	381	13.50	5800	1.46	**FS57**		41
	142.44	347	12.29	5760	1.60	**FM57**		37
	154.12	320	11.35	5415	1.88	**FN57**	**132S**	48
	188.00	263	9.31	5330	2.09	**FH57**		41
	199.51	248	8.77	5300	2.19			
	231.11	214	7.57	5200	2.40			
	266.23	186	6.57	5095	2.62			
	292.44	169	5.98	5015	2.77			
7.5	**12.78**	5113	136.95	29900	0.84			
(10HP)	**15.99**	4085	109.42	29900	1.05			
	15.00	4356	116.67	29900	0.99			
	17.74	3684	98.66	29900	1.17	**FS97**		177
	20.02	3263	87.40	29900	1.32	**FM97**		192
	22.46	2910	77.93	29900	1.45	**FN97**	**132M**	207
	27.12	2409	64.52	29900	1.69	**FH97**		167
	30.62	2134	57.15	29900	1.86			
	34.34	1903	50.96	29390	2.05			
	38.30	1706	45.69	28860	2.24			
	51.92	1258	33.70	27265	2.86			
	54.04	1246	32.38	26935	2.88	**FS97**		182
	60.59	1112	28.88	26310	3.16	**FM97**		197
	77.01	875	22.72	24980	3.85	**FN97**	**132M**	212
	100.11	673	17.48	23505	4.97	**FH97**		172
	18.95	3447	92.34	19800	0.87			
	21.00	3111	83.32	19800	0.96			
	22.24	2937	78.67	19800	1.02			
	24.74	2641	70.73	19800	1.11	**FS87**		106
	28.34	2306	61.76	19800	1.24	**FM87**		116
	32.72	1997	53.48	19140	1.05	**FN87**	**132M**	126
	37.66	1735	46.47	19120	1.20	**FH87**		101

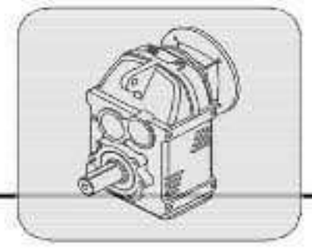


Parallel Shaft Gear Units

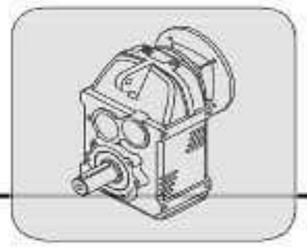
Selection Tables [kW] F..F/..M

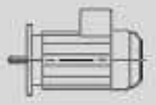
1750 Input Rpm

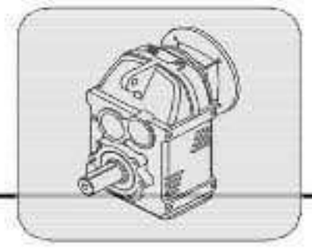
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	48.85	1338	35.83	18830	1.56			
	70.04	933	24.98	18055	2.25			
	89.24	732	19.61	17370	2.89			
	54.32	1240	32.21	19360	2.05			
	61.60	1093	28.41	19000	2.27			
	67.47	998	25.94	18725	2.45	**FS87**		111
	79.19	851	22.10	18210	2.85	**FM87**		121
	84.44	798	20.73	17995	3.03	**FN87**	**132M**	131
	93.65	719	18.69	17640	3.38	**FH87**		106
	105.72	637	16.55	17210	3.82			
	118.56	568	14.76	16800	4.30			
	132.25	509	13.23	16405	4.81			
	35.69	1831	49.04	15700	0.82	**FS77**		68
	42.00	1556	41.67	15700	0.96	**FM77**	**132M**	69
	56.00	1167	31.25	15700	1.29	**FN77**		77
						FH77		64
	70.77	952	24.73	15700	1.58			
	81.45	827	21.49	15700	1.81			
	105.65	638	16.56	15700	2.35			
	111.89	602	15.64	15700	2.49	**FS77**		69
	124.45	541	14.06	15700	2.77	**FM77**	**132M**	71
	142.53	473	12.28	15700	3.17	**FN77**		79
	193.01	349	9.07	15235	4.30	**FH77**		65
	223.39	302	7.83	14480	4.08			
	236.59	285	7.40	14290	4.24			
	301.38	224	5.81	13485	6.01			
9.2	**15.99**	5011	109.42	28865	0.86			
(12.4HP)	**15.00**	5343	116.67	28695	0.81			
	17.74	4519	98.66	29030	0.95			
	20.02	4003	87.40	29090	1.07	**FS97**		177
	22.46	3569	77.93	29030	1.18	**FM97**	**132M**	192
	27.12	2955	64.52	28720	1.38	**FN97**		207
	30.62	2617	57.15	28410	1.52	**FH97**		167
	34.34	2334	50.96	28055	1.67			
	38.30	2092	45.69	27665	1.82			
	51.92	1544	33.70	26385	2.34			
	54.04	1529	32.38	26055	2.35			
	60.59	1364	28.88	25530	2.58	**FS97**		182
	77.01	1073	22.72	24365	3.14	**FM97**		197
	100.11	825	17.48	23035	4.05	**FN97**	**132M**	212
	126.28	654	13.86	21840	5.15	**FH97**		172
	135.13	611	12.95	21110	3.82			
	151.49	545	11.55	20570	5.35			
	22.24	3603	78.67	18185	0.83			
	24.74	3240	70.73	18510	0.91			
	28.34	2829	61.76	18785	1.01	**FS87**		106
	32.72	2449	53.48	17190	0.85	**FM87**	**132M**	116
	37.66	2128	46.47	17425	0.98	**FN87**		126
	48.85	1641	35.83	17530	1.27	**FH87**		101
	70.04	1144	24.98	17145	1.84			
	89.24	898	19.61	16655	2.35			
	54.32	1521	32.21	18345	1.67			
	61.60	1341	28.41	18115	1.85			
	67.47	1225	25.94	17915	2.00			
	79.19	1043	22.10	17520	2.32	**FS87**		111
	84.44	979	20.73	17345	2.47	**FM87**		121
	93.65	882	18.69	17050	2.75	**FN87**	**132M**	131
	105.72	782	16.55	16690	3.11	**FH87**		106
	118.56	697	14.76	16335	3.50			

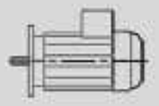


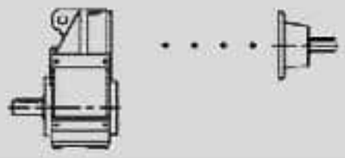
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	132.25	625	13.23	15990	3.92			
	179.27	461	9.76	14990	5.34			
	217.79	379	8.04	14065	5.83			
	56.00	1431	31.25	15700	1.05	**FS77**		68
						FM77	**132M**	69
						FN77		77
						FH77		64
	70.77	1167	24.73	15700	1.29			
	81.45	1014	21.49	15700	1.48			
	105.65	782	16.56	15700	1.92			
	111.89	738	15.64	15700	2.03	**FS77**		69
	124.45	664	14.06	15700	2.26	**FM77**	**132M**	71
	142.53	580	12.28	15700	2.58	**FN77**		79
	193.01	428	9.07	14920	3.50	**FH77**		65
	223.39	370	7.83	14155	3.33			
	236.59	349	7.40	13980	3.46			
	301.38	274	5.81	13245	4.90			
11 (15HP)	**17.74**	5403	98.66	26295	0.80			
	20.02	4786	87.40	26665	0.90			
	22.46	4267	77.93	26870	0.99	**FS97**		188
	27.12	3533	64.52	26935	1.15	**FM97**	**160M**	203
	30.62	3129	57.15	26825	1.27	**FN97**		218
	34.34	2791	50.96	26645	1.40	**FH97**		178
	38.30	2502	45.69	26395	1.53			
	51.92	1846	33.70	25450	1.95			
	54.04	1828	32.38	25135	1.96			
	60.59	1631	28.88	24705	2.16			
	77.01	1283	22.72	23715	2.62	**FS97**		193
	100.11	987	17.48	22535	3.39	**FM97**		208
	126.28	782	13.86	21445	4.31	**FN97**	**160M**	223
	135.13	731	12.95	20670	3.19	**FH97**		183
	151.49	652	11.55	20175	4.48			
	192.55	513	9.09	19120	5.29			
	250.31	395	6.99	17970	5.19			
	28.34	3382	61.76	16800	0.85	**FS87**		117
	37.66	2545	46.47	15640	0.82	**FM87**		127
	48.85	1962	35.83	16150	1.06	**FN87**	**160M**	137
	70.04	1368	24.98	16180	1.53	**FH87**		112
	89.24	1074	19.61	15900	1.97			
	54.32	1819	32.21	17280	1.40			
	61.60	1604	28.41	17170	1.55			
	67.47	1464	25.94	17055	1.67			
	79.19	1247	22.10	16785	1.94			
	84.44	1170	20.73	16660	2.07	**FS87**		122
	93.65	1055	18.69	16435	2.30	**FM87**		132
	105.72	934	16.55	16145	2.60	**FN87**	**160M**	142
	118.56	833	14.76	15850	2.93	**FH87**		117
	132.25	747	13.23	15550	3.28			
	179.27	551	9.76	14665	4.47			
	217.79	454	8.04	13750	4.87			
	245.87	402	7.12	13410	5.37			
	275.74	358	6.35	13085	5.83			
	56.00	1711	31.25	15700	0.88	**FS77**		79
						FM77	**160M**	80
						FN77		88
						FH77		75
	70.77	1396	24.73	15700	1.07			
	81.45	1213	21.49	15700	1.24			
	105.65	935	16.56	15700	1.60			

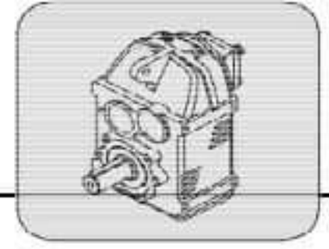


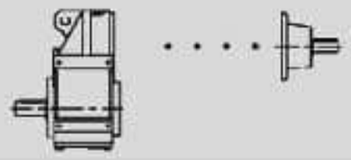
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	111.89	883	15.64	15700	1.70	**FS77**		80
	124.45	794	14.06	15700	1.89	**FM77**	**160M**	82
	142.53	693	12.28	15455	2.16	**FN77**		90
	193.01	512	9.07	14590	2.93	**FH77**		76
	223.39	442	7.83	13810	2.79			
	236.59	418	7.40	13655	2.89			
	301.38	328	5.81	12990	4.10			
15	**27.12**	4818	64.52	22960	0.85	**FS97**		188
(20HP)	**30.62**	4267	57.15	23310	0.93	**FM97**		203
	34.34	3805	50.96	23505	1.02	**FN97**	**160L**	218
	38.30	3412	45.69	23585	1.12	**FH97**		178
	51.92	2517	33.70	23375	1.43			
	54.04	2493	32.38	23075	1.44			
	60.59	2224	28.88	22870	1.58			
	77.01	1749	22.72	22270	1.92			
	100.11	1346	17.48	21425	2.49	**FS97**		193
	126.28	1067	13.86	20565	3.16	**FM97**	**160L**	208
	135.13	997	12.95	19680	2.34	**FN97**		223
	151.49	889	11.55	19290	3.28	**FH97**		183
	192.55	700	9.09	18430	3.88			
	250.31	538	6.99	17435	3.81			
	315.74	427	5.54	16545	5.49			
	70.04	1866	24.98	14045	1.13	**FS87**		117
	89.24	1464	19.61	14220	1.44	**FM87**	**160L**	127
						FN87		137
						FH87		112
	54.32	2480	32.21	14905	1.03			
	61.60	2187	28.41	15075	1.14			
	67.47	1997	25.94	15140	1.22			
	79.19	1701	22.10	15155	1.42			
	84.44	1595	20.73	15130	1.52			
	93.65	1439	18.69	15055	1.69	**FS87**		122
	105.72	1274	16.55	14925	1.91	**FM87**		132
	118.56	1136	14.76	14760	2.15	**FN87**	**160L**	142
	132.25	1019	13.23	14575	2.40	**FH87**		117
	179.27	751	9.76	13945	3.28			
	217.79	619	8.04	13040	3.57			
	245.87	548	7.12	12780	3.94			
	275.74	489	6.35	12525	4.27			
	307.56	438	5.69	12270	4.61			
	416.91	323	4.20	11530	5.68			
18.5	**34.34**	4693	50.96	20755	0.83	**FS97**		197
(25HP)	**38.30**	4208	45.69	21120	0.91	**FM97**		212
	51.92	3104	33.70	21555	1.16	**FN97**	**180M**	227
						FH97		187
	54.04	3074	32.38	21280	1.17			
	60.59	2742	28.88	21270	1.28			
	77.01	2158	22.72	21010	1.56			
	100.11	1660	17.48	20455	2.02	**FS97**		202
	126.28	1316	13.86	19795	2.56	**FM97**		217
	135.13	1230	12.95	18815	1.90	**FN97**	**180M**	232
	151.49	1097	11.55	18520	2.66	**FH97**		192
	192.55	863	9.09	17820	3.15			
	250.31	664	6.99	16970	3.09			
	315.74	526	5.54	16175	4.45			
	70.04	2301	24.98	12170	0.91	**FS87**		126
	89.24	1806	19.61	12750	1.17	**FM87**		136
						FN87	**180M**	146
						FH87		121

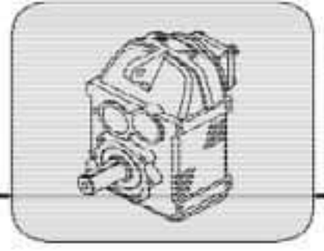


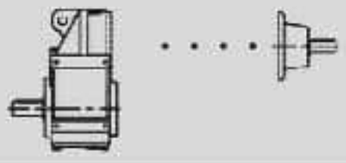
Pm [kW]	na [1/min]	Ma [Nm]	i	FRa [N]	fs			m [kg]
	54.32	3059	32.21	12825	0.83			
	61.60	2697	28.41	13245	0.92			
	67.47	2463	25.94	13465	0.99			
	79.19	2098	22.10	13730	1.15			
	84.44	1968	20.73	13790	1.23			
	93.65	1774	18.69	13850	1.37	**FS87**		131
	105.72	1572	16.55	13855	1.55	**FM87**		141
	118.56	1401	14.76	13805	1.74	**FN87**	**180M**	151
	132.25	1256	13.23	13720	1.95	**FH87**		126
	179.27	927	9.76	13315	2.66			
	217.79	763	8.04	12420	2.90			
	245.87	676	7.12	12230	3.19			
	275.74	603	6.35	12035	3.46			
	307.56	540	5.69	11830	3.74			
	416.91	399	4.20	11205	4.61			
22	**51.92**	3691	33.70	19740	0.98	**FS97**		197
(30HP)						**FM97**	**180L**	212
						FN97		227
						FH97		187
	54.04	3656	32.38	19480	0.98			
	60.59	3261	28.88	19660	1.08			
	77.01	2566	22.72	19750	1.31			
	100.11	1974	17.48	19485	1.70	**FS97**		202
	126.28	1565	13.86	19025	2.16	**FM97**	**180L**	217
	135.13	1462	12.95	17950	1.60	**FN97**		232
	151.49	1304	11.55	17750	2.24	**FH97**		192
	192.55	1026	9.09	17215	2.65			
	250.31	789	6.99	16500	2.59			
	315.74	626	5.54	15800	3.74			
	89.24	2148	19.61	11285	0.98			
	67.47	2929	25.94	11795	0.83			
	79.19	2495	22.10	12300	0.97			
	84.44	2340	20.73	12455	1.03			
	93.65	2110	18.69	12645	1.15			
	105.72	1869	16.55	12785	1.30	**FS87**		131
	118.56	1666	14.76	12855	1.47	**FM87**	**180L**	141
	132.25	1494	13.23	12865	1.64	**FN87**		151
	179.27	1102	9.76	12685	2.23	**FH87**		126
	217.79	907	8.04	11795	2.44			
	245.87	804	7.12	11685	2.68			
	275.74	717	6.35	11545	2.91			
	307.56	642	5.69	11390	3.14			
	416.91	474	4.20	10880	3.87			
30	**60.59**	4447	28.88	15995	0.79			
(40HP)	**77.01**	3499	22.72	16865	0.96			
	100.11	2691	17.48	17265	1.24	**FS97**		205
	126.28	2134	13.86	17270	1.58	**FM97**		220
	135.13	1994	12.95	15970	1.17	**FN97**	**200L**	235
	151.49	1779	11.55	15985	1.64	**FH97**		195
	192.55	1399	9.09	15825	1.94			
	250.31	1076	6.99	15435	1.90			
	315.74	853	5.54	14955	2.75			

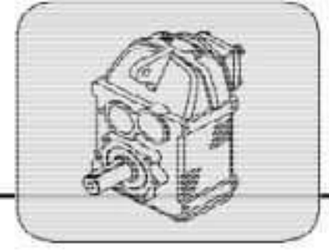
i	na [1/min]	Ma max [Nm]	Pe [kW]	FRa [N]	FRe [N]			m [kg]
F37								**200Nm**
128.51	14	200	0.31	4290	590			
117.88	15	200	0.34	4290	590			
100.36	17	200	0.40	4290	580			
80.65	22	200	0.50	4290	560	**FSS37**		14
70.50	25	200	0.57	4290	550	**FMS37**	**Ø16**	15
66.09	26	200	0.61	4290	540	**FNS37**		16
58.32	30	200	0.69	4290	530	**FHS37**		14
54.54	32	200	0.73	4290	410			
51.70	34	200	0.78	4290	520			
43.83	40	200	0.92	4290	400			
38.31	46	200	1.05	4230	640	**FSS37**		14
35.91	49	200	1.12	4110	640	**FMS37**	**Ø19**	15
31.69	55	200	1.27	3875	630	**FNS37**		16
28.10	62	200	1.42	3660	620	**FHS37**		14
24.70	71	200	1.58	3430	380			
19.71	89	200	1.98	3060	410			
17.32	101	200	2.25	2860	390	**FSS37**		14
16.29	107	200	2.39	2770	380	**FMS37**		15
12.09	145	200	3.22	2350	330	**FNS37**	**Ø19**	16
10.39	169	200	3.76	2150	340	**FHS37**		14
9.27	189	137	2.88	2250	210			
8.14	215	130	3.12	2160	210			
5.68	308	113	3.89	1940	220			
F47								**400Nm**
148.71	12	400	0.54	5920	470	**FSS47**		19
121.06	14	400	0.66	5920	450	**FMS47**		21
104.91	17	400	0.77	5920	390	**FNS47**	**Ø16**	22
95.57	18	400	0.84	5920	430	**FHS47**		19
85.41	20	400	0.94	5920	380			
79.30	22	400	1.01	5920	670			
71.21	25	400	1.13	5920	670			
67.43	26	400	1.19	5920	610	**FSS47**		19
60.83	29	400	1.32	5920	670	**FMS47**		21
55.95	31	400	1.44	5920	600	**FNS47**	**Ø19**	22
50.24	35	400	1.60	5920	600	**FHS47**		19
42.91	41	400	1.87	5710	590			
36.06	49	385	2.14	4705	470			
32.38	54	369	2.29	4555	480			
30.66	57	361	2.37	4480	380			
25.44	69	336	2.66	4245	380			
24.76	71	370	2.91	4480	350			
21.75	80	371	3.32	4175	330			
20.45	86	372	3.54	4025	320	**FSS47**		19
15.19	115	374	4.79	3380	250	**FMS47**		21
13.04	134	374	5.60	3065	270	**FNS47**	**Ø19**	22
11.26	155	243	4.20	3355	260	**FHS47**		19
9.89	177	230	4.54	3230	230			
9.30	188	225	4.71	3175	230			
6.90	253	200	5.63	2910	240			
5.93	295	188	6.18	2780	210			
4.18	419	164	7.65	2505	150			
F57								**600Nm**
174.58	10	600	0.69	9200	790			
139.34	13	600	0.86	9200	860			
122.42	14	600	0.98	9200	930			
115.11	15	600	1.05	9200	990			
95.01	18	600	1.27	9200	1020	**FSS57**		29
85.46	20	600	1.41	9200	1050	**FMS57**		25

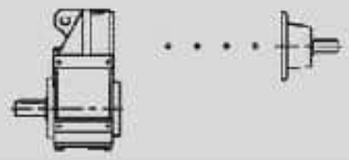


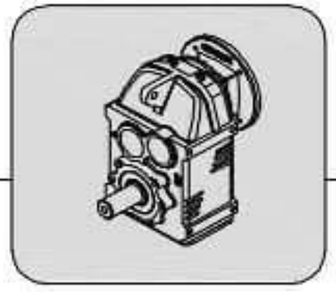
i	na [1/min]	Ma max [Nm]	Pe [kW]	FRa [N]	FRe [N]			m [kg]
73.40	24	600	1.64	9200	1080	**FNS57**	**Ø19**	36
51.72	34	600	2.33	9175	1040	**FHS57**		29
64.76	27	600	1.86	9200	840			
56.90	31	600	2.11	9200	870			
39.72	44	589	2.97	8170	860			
34.11	51	572	3.37	7685	900			
24.04	73	550	4.58	6600	860			
26.46	66	549	4.04	6920	490	**FSS57**		30
23.31	75	551	4.61	6485	500	**FMS57**	**Ø19**	26
19.11	92	553	5.63	5850	520	**FNS57**		37
						FHS57		30
18.01	97	553	5.99	5665	510			
15.55	113	555	6.96	5225	510			
13.50	130	557	8.04	4820	540			
12.29	142	558	8.83	4570	520	**FSS57**		32
11.35	154	600	10.31	3555	300	**FMS57**	**Ø24**	28
9.31	188	550	11.52	3405	290	**FNS57**		39
8.77	200	541	12.04	3330	270	**FHS57**		32
7.57	231	512	13.18	3195	300			
6.57	266	485	14.39	3065	370			
5.98	292	468	15.24	2990	360			
F67								**820Nm**
187.70	9	820	0.88	10300	600			
151.68	12	820	1.08	10300	700			
133.62	13	820	1.23	10300	790			
109.55	16	797	1.46	10300	790			
103.23	17	791	1.54	10300	820			
89.11	20	767	1.73	10300	850	**FSS67**		32
77.36	23	748	1.94	10300	830	**FMS67**		36
70.42	25	732	2.08	10300	830	**FNS67**	**Ø19**	38
64.95	27	722	2.24	10300	790	**FHS67**		30
57.22	31	706	2.48	10300	810			
46.91	37	680	2.91	10300	840			
44.20	40	671	3.05	10300	870			
38.16	46	653	3.44	10300	850			
33.12	53	636	3.86	10300	830			
30.15	58	626	4.16	10300	830			
28.44	62	619	4.24	10300	890			
18.10	97	622	6.69	10300	840			
16.12	109	623	7.52	10300	860			
14.46	121	625	8.42	10175	860	**FSS67**		35
13.31	131	626	9.16	9885	830	**FMS67**	**Ø24**	39
11.31	155	628	10.79	9330	800	**FNS67**		41
8.48	206	632	14.51	8410	770	**FHS67**		33
6.63	264	543	15.94	7565	520			
5.94	294	525	17.23	7320	520			
5.47	320	513	18.26	7140	500			
F77								**1500Nm**
166.80	10	1500	1.81	15700	640			
160.23	11	1500	1.88	15700	640	**FSS77**		58
147.56	12	1500	2.04	15700	620	**FMS77**	**Ø19**	59
93.90	19	1500	3.21	15700	840	**FNS77**		67
83.63	21	1500	3.60	15700	840	**FHS77**		54
75.02	23	1500	4.02	15700	820			
59.38	29	1500	5.06	15700	850	**FSS77**		59
53.26	33	1500	5.66	15700	880	**FMS77**	**Ø24**	60
49.04	36	1500	6.15	15700	880	**FNS77**		68
41.67	42	1500	7.22	15700	850	**FHS77**		55
31.25	56	1500	9.64	15700	1330	**FSS77**		64



i	na [1/min]	Ma max [Nm]	Pe [kW]	FRa [N]	FRe [N]			m [kg]
						FMS77	**Ø38**	65
						FNS77		73
						FHS77		60
24.73	71	1500	11.82	15700	1100			
21.49	81	1500	13.60	15700	1110			
16.56	106	1500	17.65	14135	1120			
15.64	112	1500	18.68	13805	1180	**FSS77**		65
14.06	124	1500	20.79	13185	1190	**FMS77**	**Ø38**	67
12.28	143	1500	23.76	12440	1150	**FNS77**		75
9.07	193	1500	32.22	10845	1120	**FHS77**		61
7.83	223	1230	30.64	10240	870			
7.40	237	1207	31.79	10085	910			
5.81	301	1346	45.10	8355	870			
F87								**3000Nm**
162.37	11	3000	3.71	19800	650	**FSS87**		96
141.09	12	3000	4.27	19800	620	**FMS87**	**Ø19**	106
						FNS87		116
						FHS87		91
108.77	16	3000	5.55	19800	700	**FSS87**		98
102.70	17	3000	5.87	19800	710	**FMS87**	**Ø28**	108
92.34	19	3000	6.53	19800	690	**FNS87**		118
						FHS87		93
83.32	21	3000	7.23	19800	950			
78.67	22	3000	7.65	19800	970	**FSS87**		102
70.73	25	2940	8.34	19595	960	**FMS87**		112
61.76	28	2866	9.30	18680	1060	**FNS87**	**Ø38**	122
53.48	33	2092	7.85	18730	1020	**FHS87**		97
46.47	38	2077	8.97	17655	990			
35.83	49	2088	11.71	15605	940			
24.98	70	2104	16.88	13035	2120	**FSS87**		110
19.61	89	2117	21.65	11430	2010	**FMS87**	**Ø42**	120
						FNS87		130
						FHS87		105
32.21	54	2543	15.38	14680	1010	**FSS87**		107
28.41	62	2486	17.04	14005	1010	**FMS87**		117
25.94	67	2446	18.36	13535	990	**FNS87**	**Ø38**	127
22.10	79	2420	21.34	12570	1000	**FHS87**		102
20.73	84	2423	22.76	12165	970			
18.69	94	2429	25.32	11500	1980			
16.55	106	2436	28.62	10765	1920			
14.76	119	2443	32.23	10070	1860			
13.23	132	2450	36.04	9440	1800	**FSS87**		115
9.76	179	2469	49.16	7795	1590	**FMS87**	**Ø42**	125
8.04	218	2212	53.61	6195	1290	**FNS87**		135
7.12	246	2161	59.03	5865	1270	**FHS87**		110
6.35	276	2089	64.10	5650	1280			
5.69	308	2022	69.17	5470	1290			
4.20	417	1840	85.20	5030	1270			
F97								**4300Nm**
170.08	10	4300	5.08	29900	500	**FSS97**		174
149.98	12	4300	5.77	29900	490	**FMS97**	**Ø28**	189
136.95	13	4300	6.31	29900	450	**FNS97**		204
						FHS97		164
109.42	16	4300	7.90	29900	1380			
116.67	15	4300	7.42	29900	1400	**FSS97**		177
98.66	18	4300	8.77	29690	1370	**FMS97**	**Ø38**	192
87.40	20	4300	9.88	28170	1340	**FNS97**		207
77.93	22	4218	10.88	27010	1330	**FHS97**		167
64.52	27	4075	12.68	25270	1120			

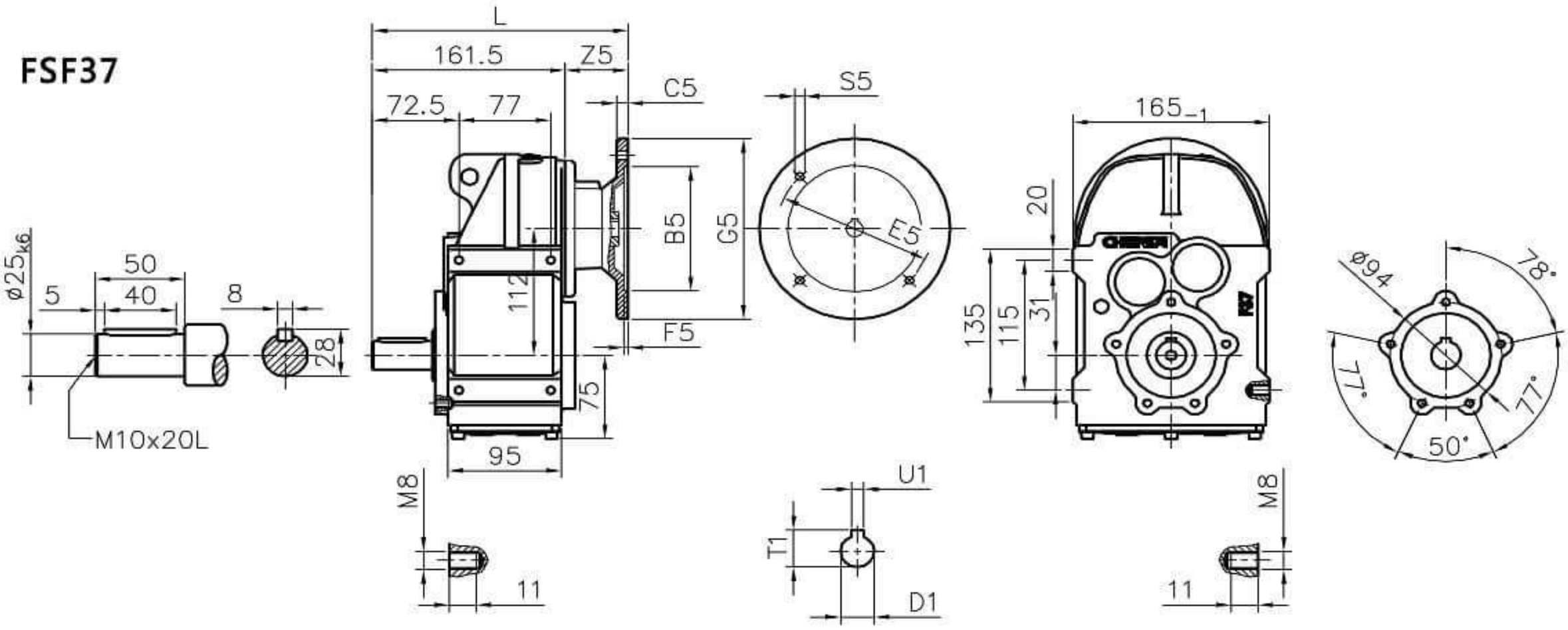


i	na [1/min]	Ma max [Nm]	Pe [kW]	FRa [N]	FRe [N]			m [kg]
57.15	31	3985	13.97	24215	3320	**FSS97**		185
50.96	34	3900	15.36	23220	3240	**FMS97**	Ø42	200
45.69	38	3823	16.79	22325	3260	**FNS97**		215
33.70	52	3616	21.48	20010	3150	**FHS97**		175
32.38	54	3588	21.59	19690	2210	**FSS97**		190
28.88	61	3514	23.72	18875	2200	**FMS97**	**Ø42**	205
22.72	77	3365	28.86	17275	2180	**FNS97**		220
						FHS97		180
17.48	100	3350	37.30	15240	2920			
13.86	126	3369	47.42	13435	2810	**FSS97**		196
12.95	135	2332	35.10	14715	2390	**FMS97**		211
11.55	151	2917	49.26	11740	1690	**FNS97**	**Ø48**	226
9.09	193	2715	58.24	10930	1820	**FHS97**		186
6.99	250	2049	57.09	11820	2290			
5.54	316	2339	82.39	9415	1840			

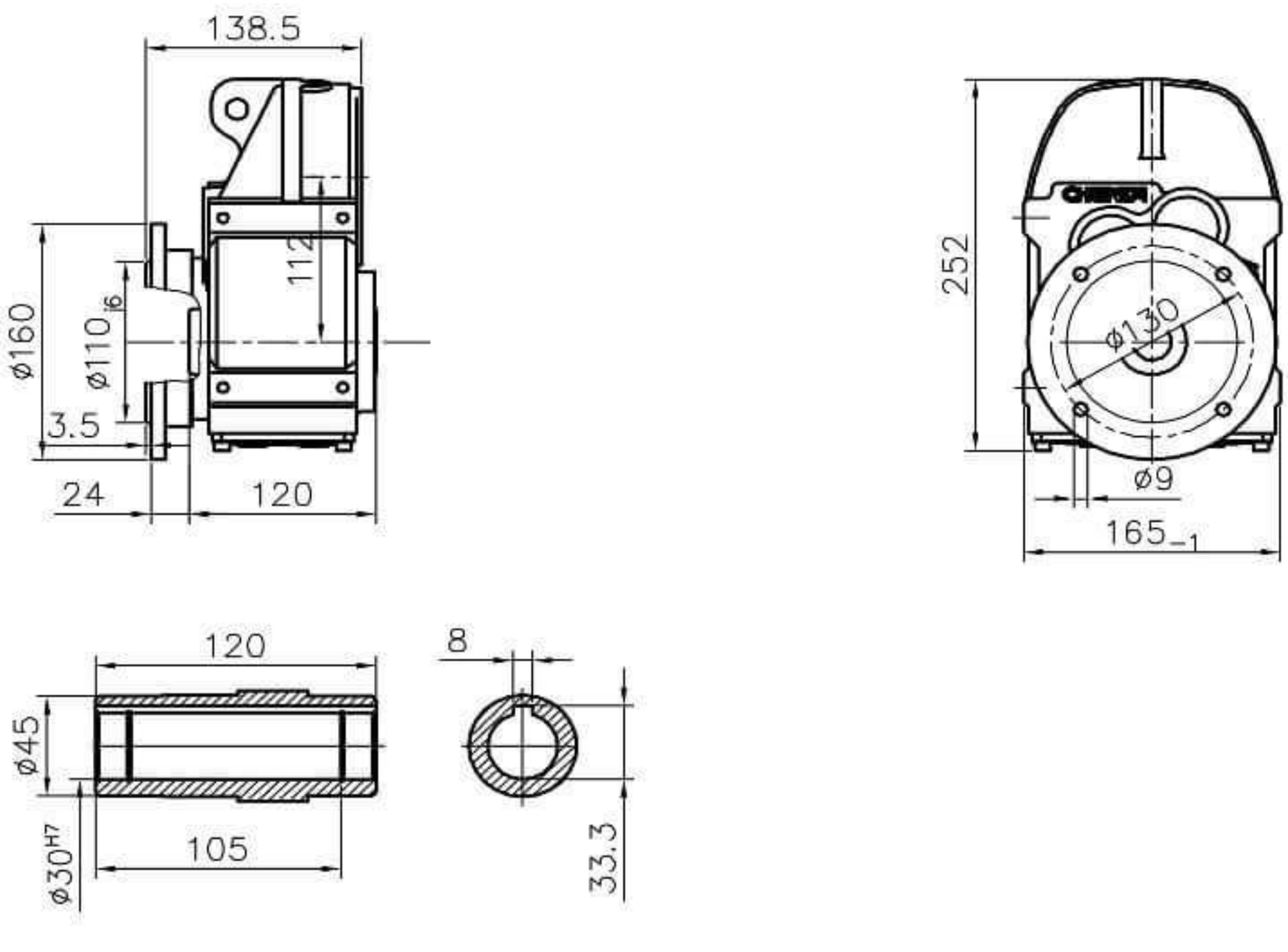


Parallel shaft helical Gear
Dimension Sheets [mm]

FSF37



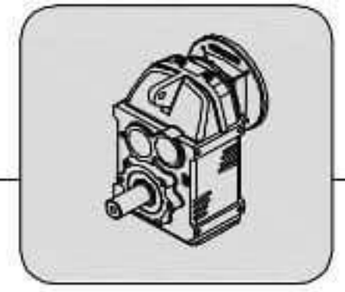
FMF37



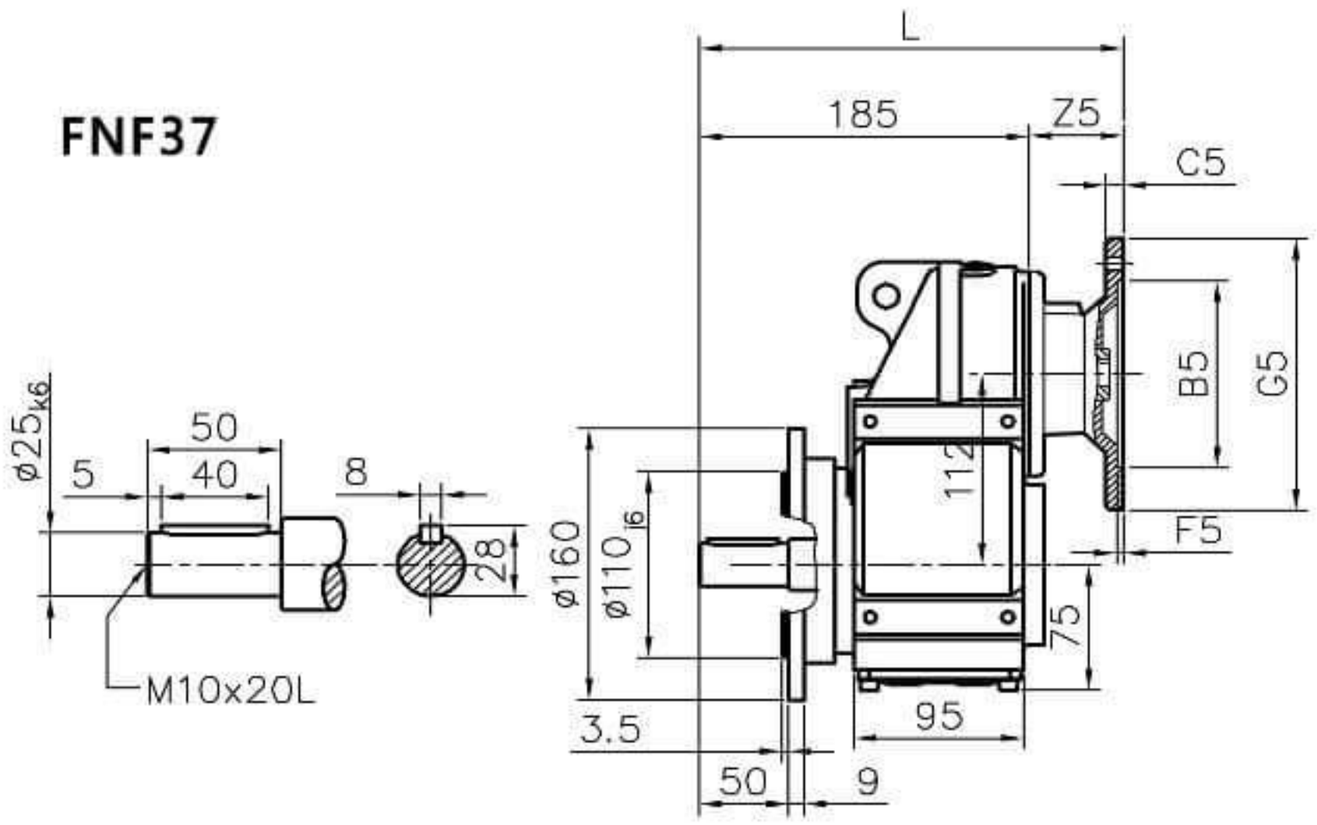
For the dimensions concerning the solid input shaft, please refer to the table shown at page 124.
For the dimensions concerning the motor input, please refer to the table shown at page 123.
入力為實心軸之尺寸表，請參閱第124頁。
入力為馬達直結型之尺寸表，請參閱第123頁。

	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63 *	95	10	115	4	140	214.5	M8	53	11	12.8	4
IEC 71	110	10	130	4	160	214.5	M8	53	14	16.3	5
IEC 80	130	12	165	5	200	232.5	M10	71	19	21.8	6
IEC 90	130	12	165	5	200	232.5	M10	71	24	27.3	8

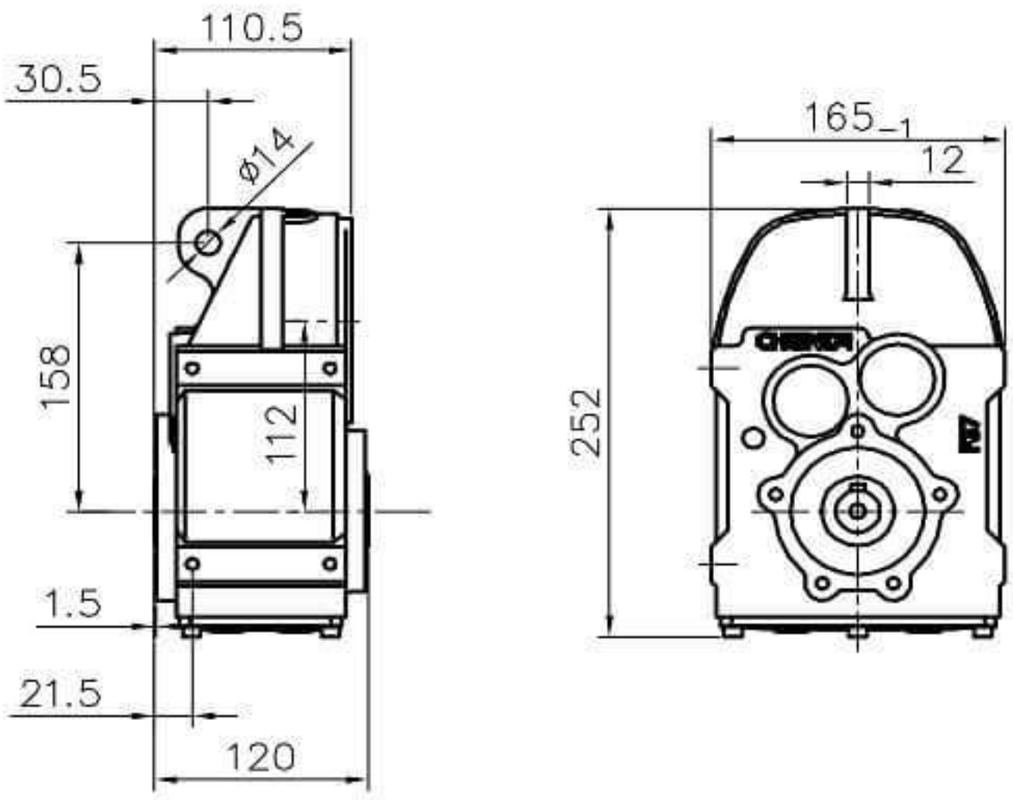
* 台灣東元馬達請參閱第122頁。



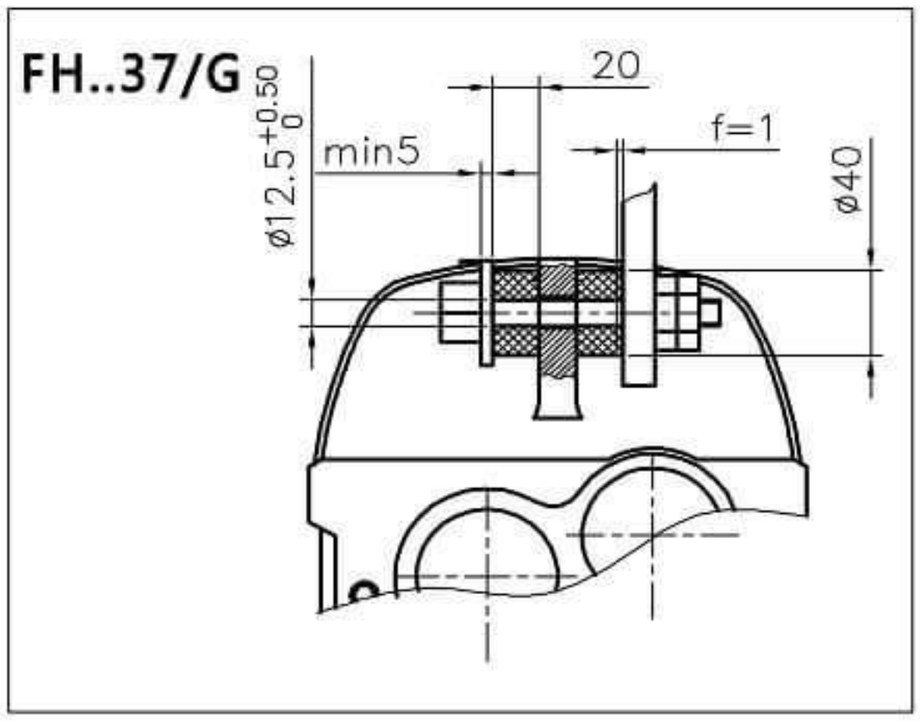
FNF37

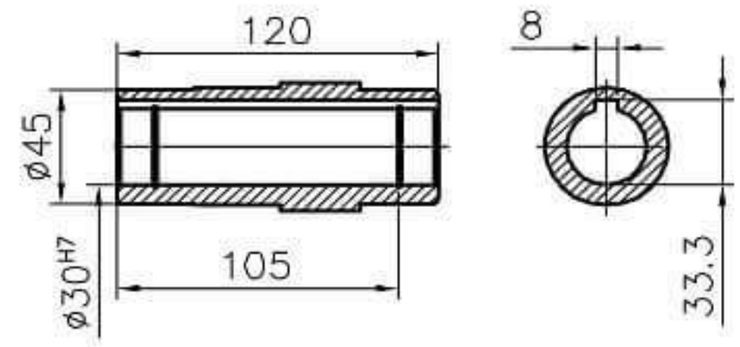


FHF37



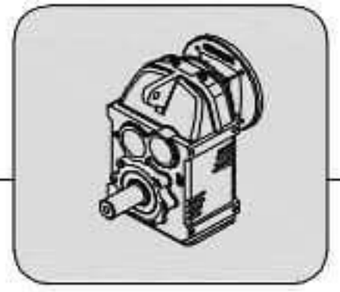
FH..37/G





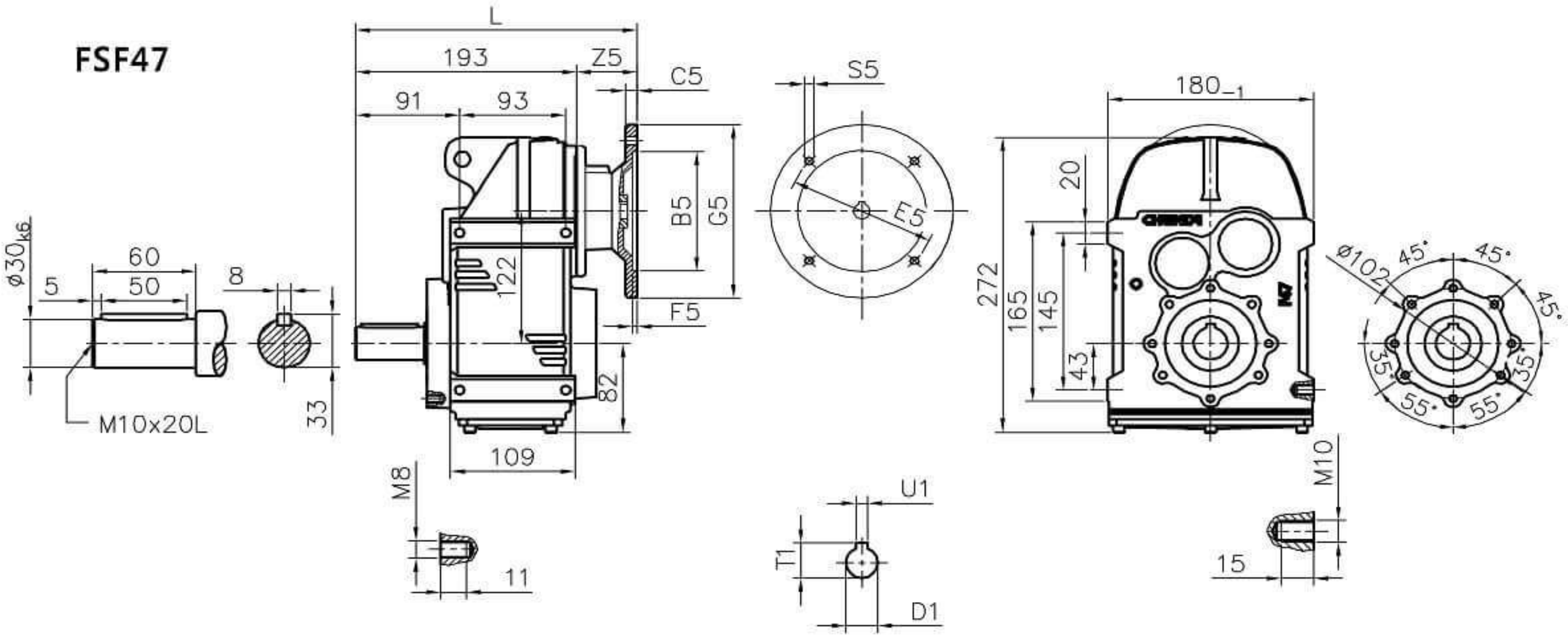
	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63 *	95	10	115	4	140	238	M8	53	11	12.8	4
IEC 71	110	10	130	4	160	238	M8	53	14	16.3	5
IEC 80	130	12	165	5	200	256	M10	71	19	21.8	6
IEC 90	130	12	165	5	200	256	M10	71	24	27.3	8

* 台灣東元馬達請參閱第122頁。

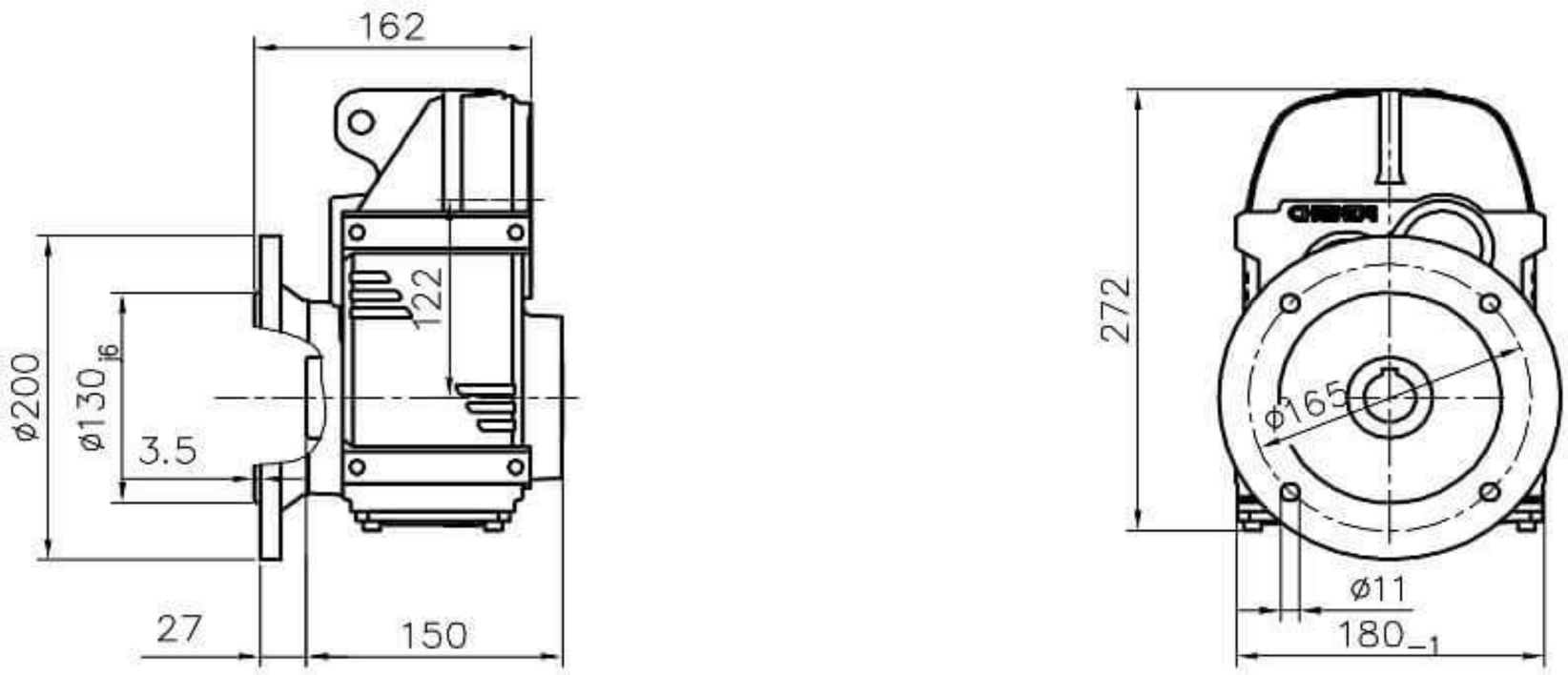


Parallel shaft helical Gear
Dimension Sheets [mm]

FSF47



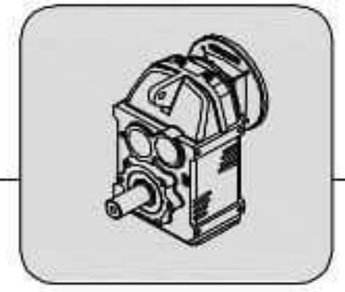
FMF47



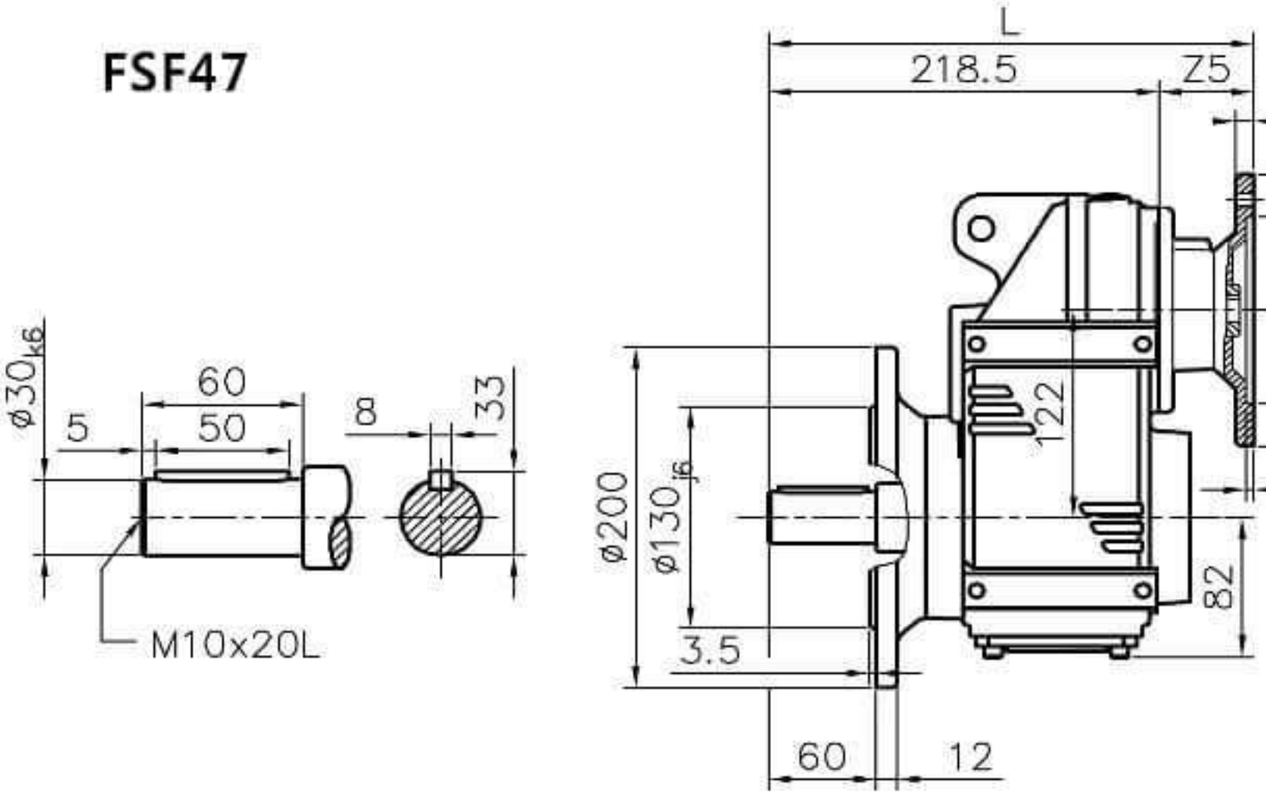
For the dimensions concerning the solid input shaft, please refer to the table shown at page 124.
For the dimensions concerning the motor input, please refer to the table shown at page 123.
入力為實心軸之尺寸表，請參閱第124頁。
入力為馬達直結型之尺寸表，請參閱第123頁。

	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63 *	95	10	115	4	140	246	M8	53	11	12.8	4
IEC 71	110	10	130	4	160	246	M8	53	14	16.3	5
IEC 80	130	12	165	5	200	264	M10	71	19	21.8	6
IEC 90	130	12	165	5	200	264	M10	71	24	27.3	8

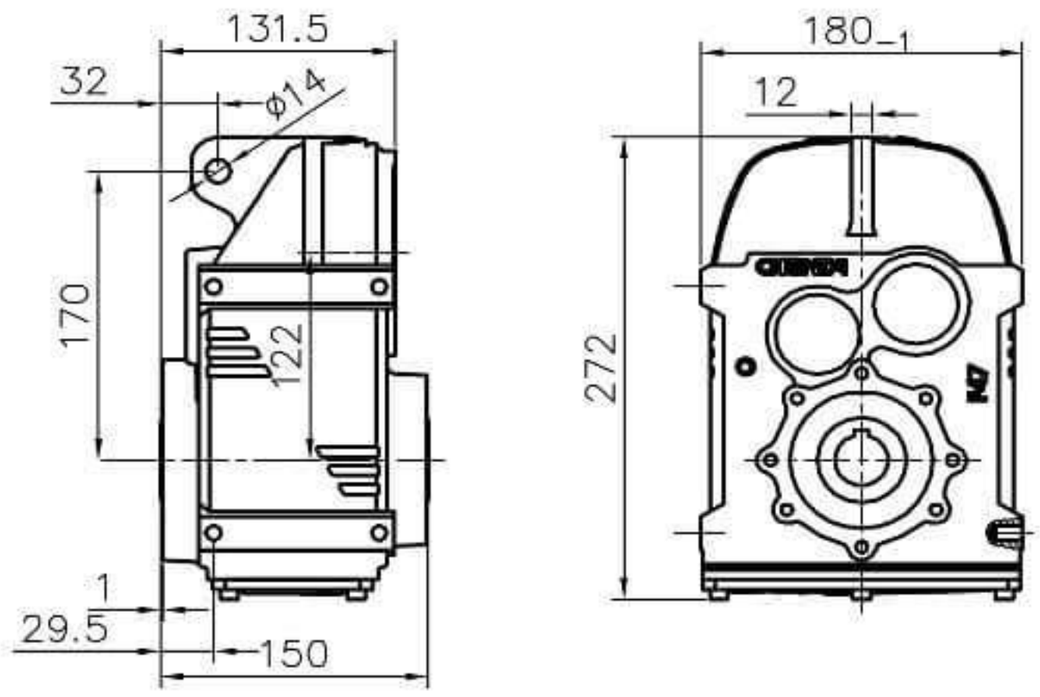
* 台灣東元馬達請參閱第122頁。



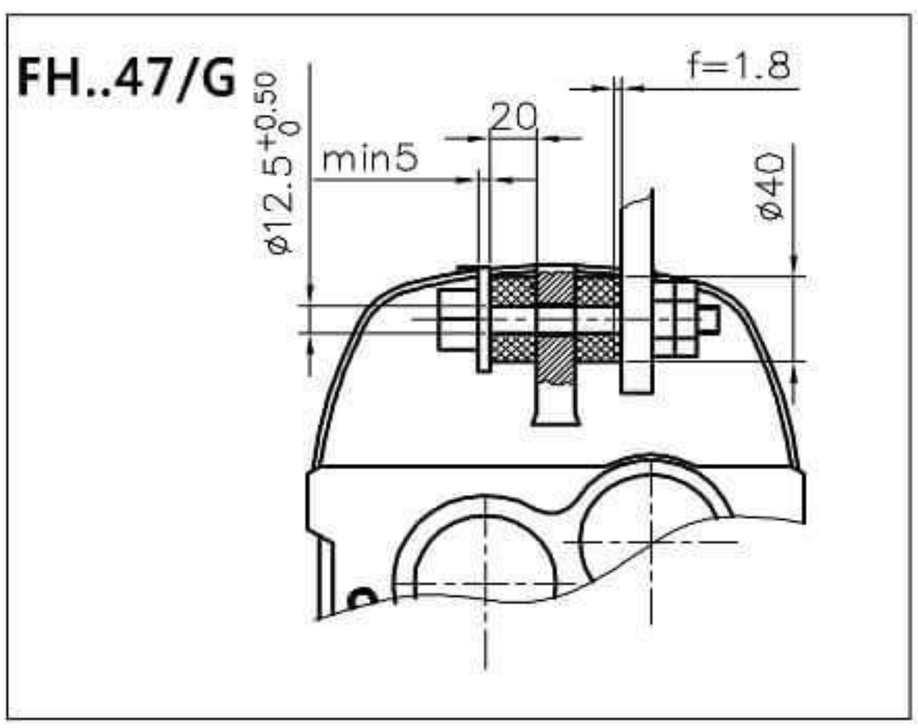
FSF47

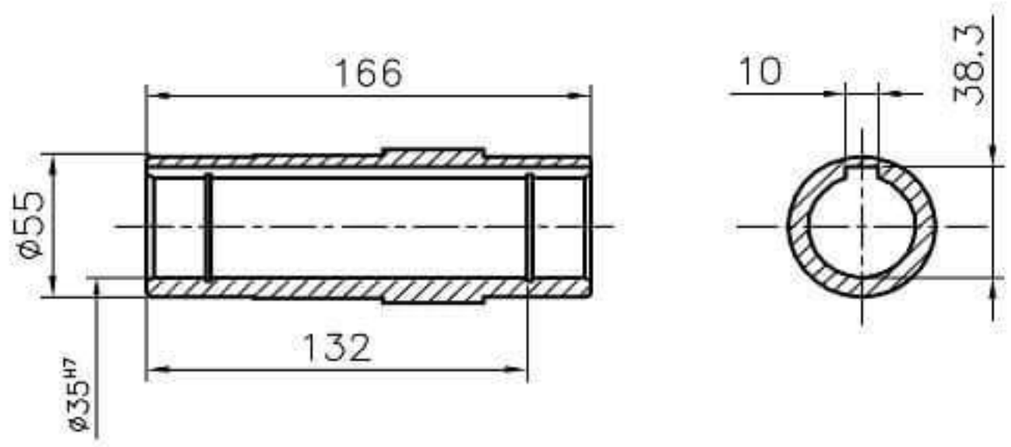


FMF47



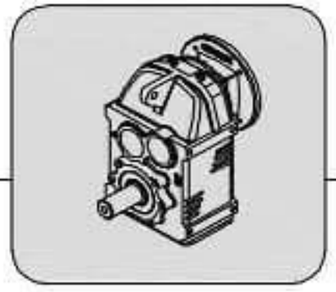
FH..47/G





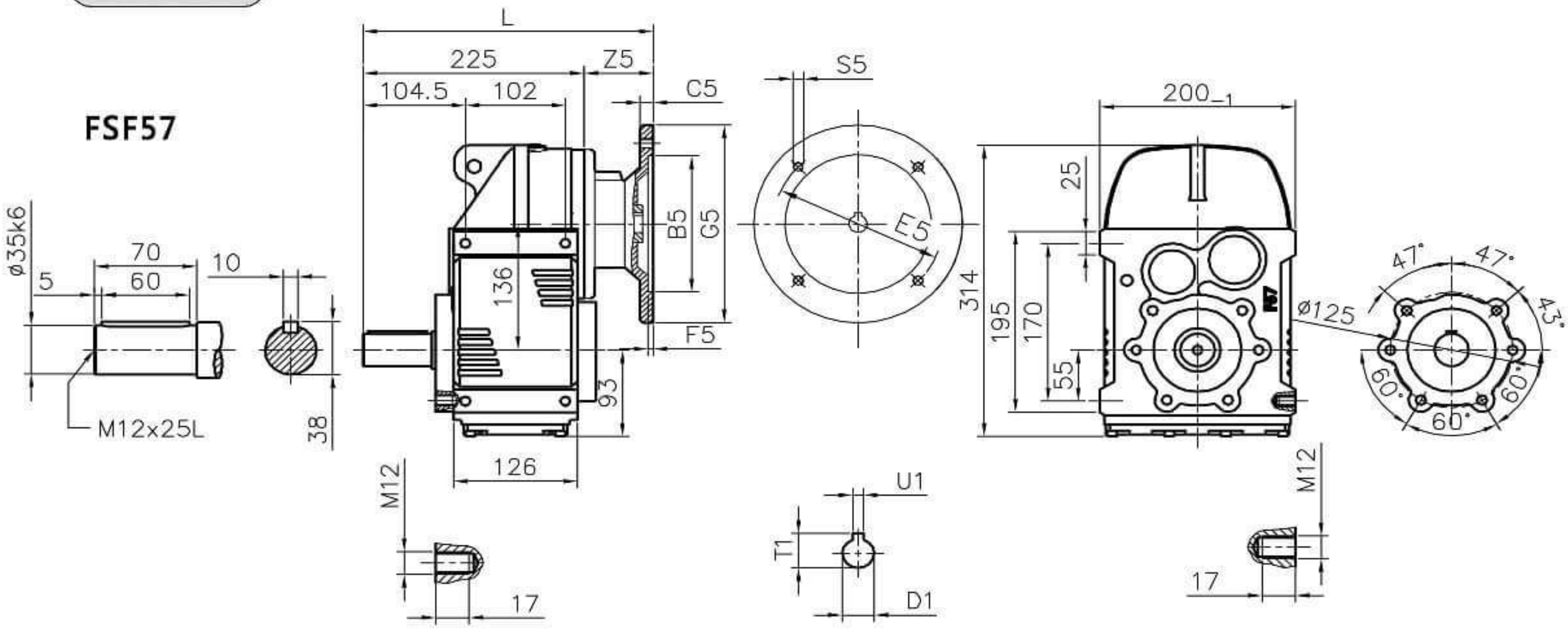
	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63 *	95	10	115	4	140	271.5	M8	53	11	12.8	4
IEC 71	110	10	130	4	160	271.5	M8	53	14	16.3	5
IEC 80	130	12	165	5	200	289.5	M10	71	19	21.8	6
IEC 90	130	12	165	5	200	289.5	M10	71	24	27.3	8

* 台灣東元馬達請參閱第122頁。



Parallel shaft helical Gear
Dimension Sheets [mm]

FSF57

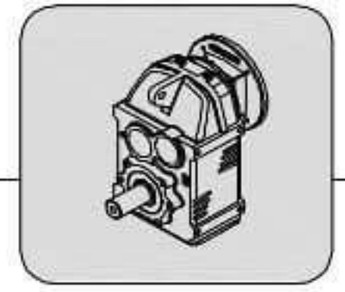


FMF57

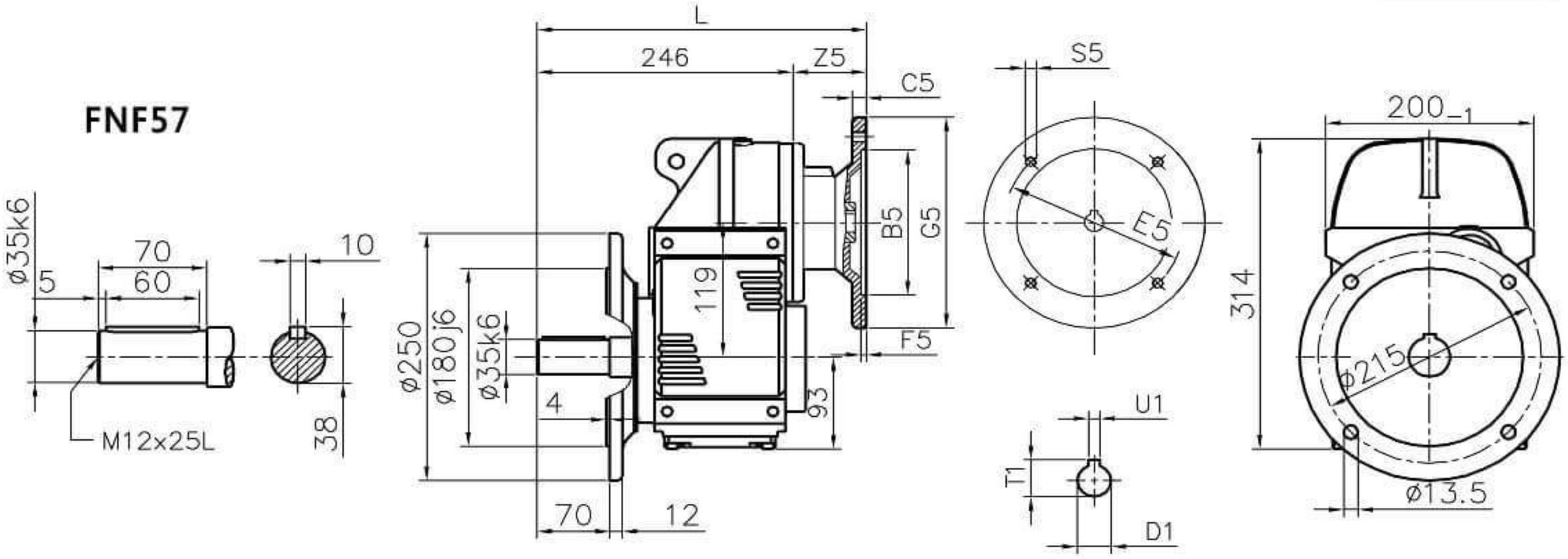
For the dimensions concerning the solid input shaft, please refer to the table shown at page 124.
For the dimensions concerning the motor input, please refer to the table shown at page 123.
入力為實心軸之尺寸表，請參閱第124頁。
入力為馬達直結型之尺寸表，請參閱第123頁。

	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63 *	95	10	115	4	140	271.5	M8	46.5	11	12.8	4
IEC 71	110	10	130	4	160	271.5	M8	46.5	14	16.3	5
IEC 80	130	12	165	5	200	289.5	M10	64.5	19	21.8	6
IEC 90	130	12	165	5	200	289.5	M10	64.5	24	27.3	8
IEC 100	180	15	215	5	250	306	M12	81	28	31.3	8
IEC 112	180	15	215	5	250	306	M12	81	28	31.3	8

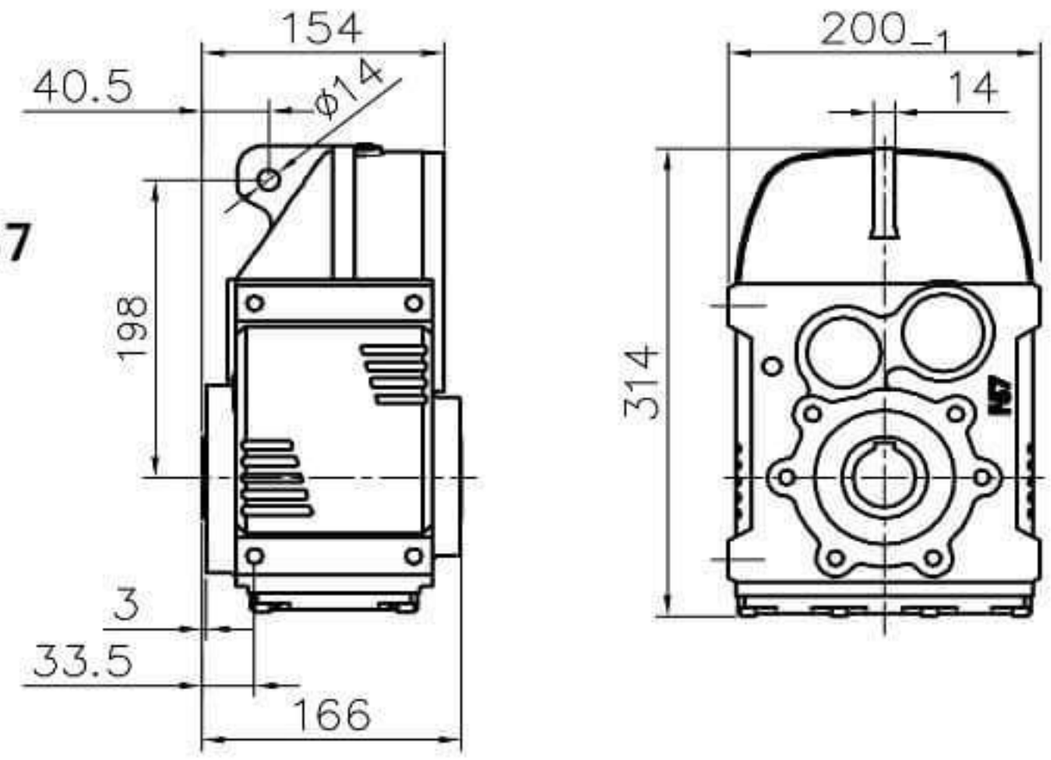
* 台灣東元馬達請參閱第122頁。

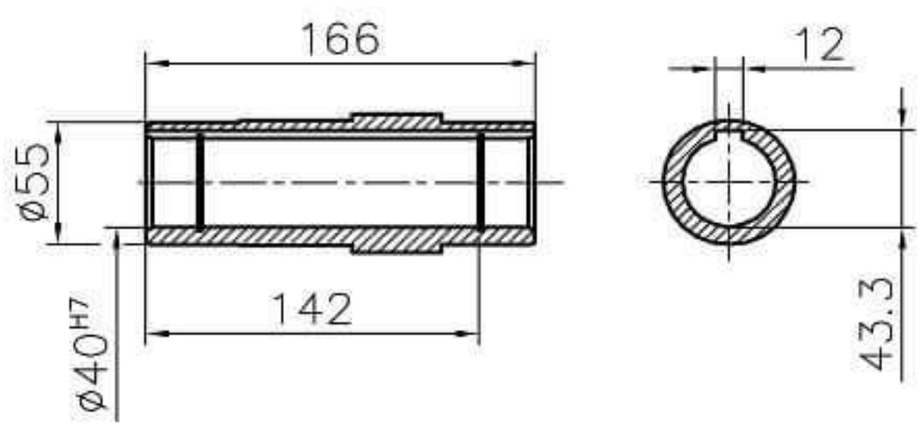


FNF57

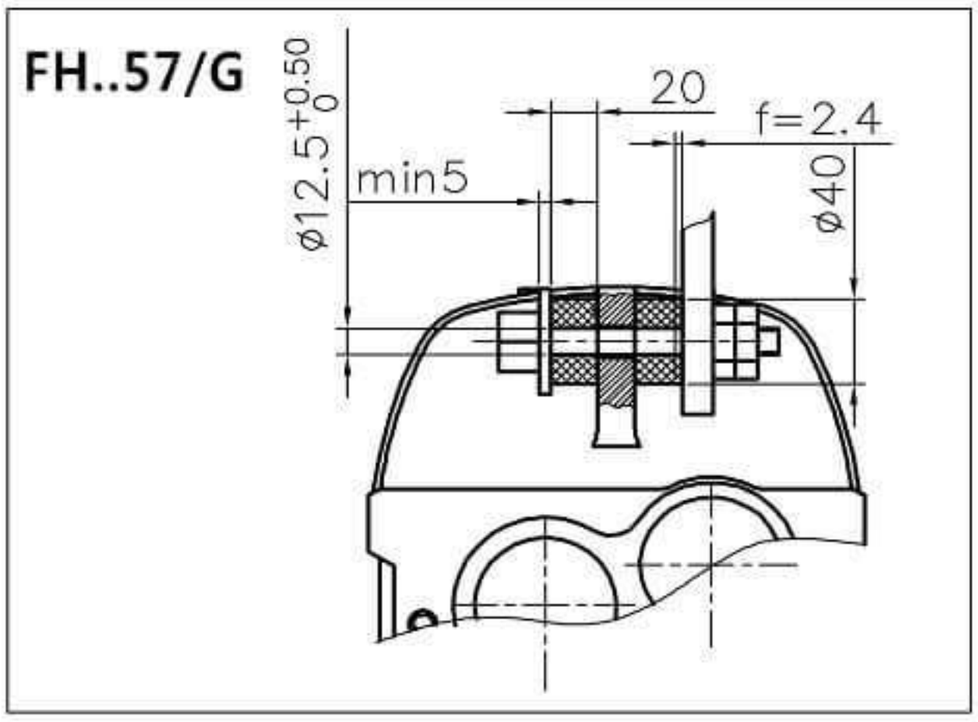


FHF57



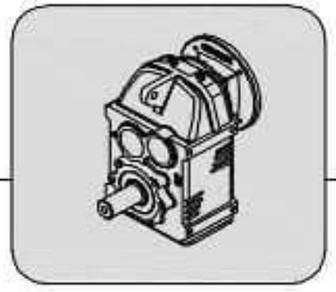


FH..57/G



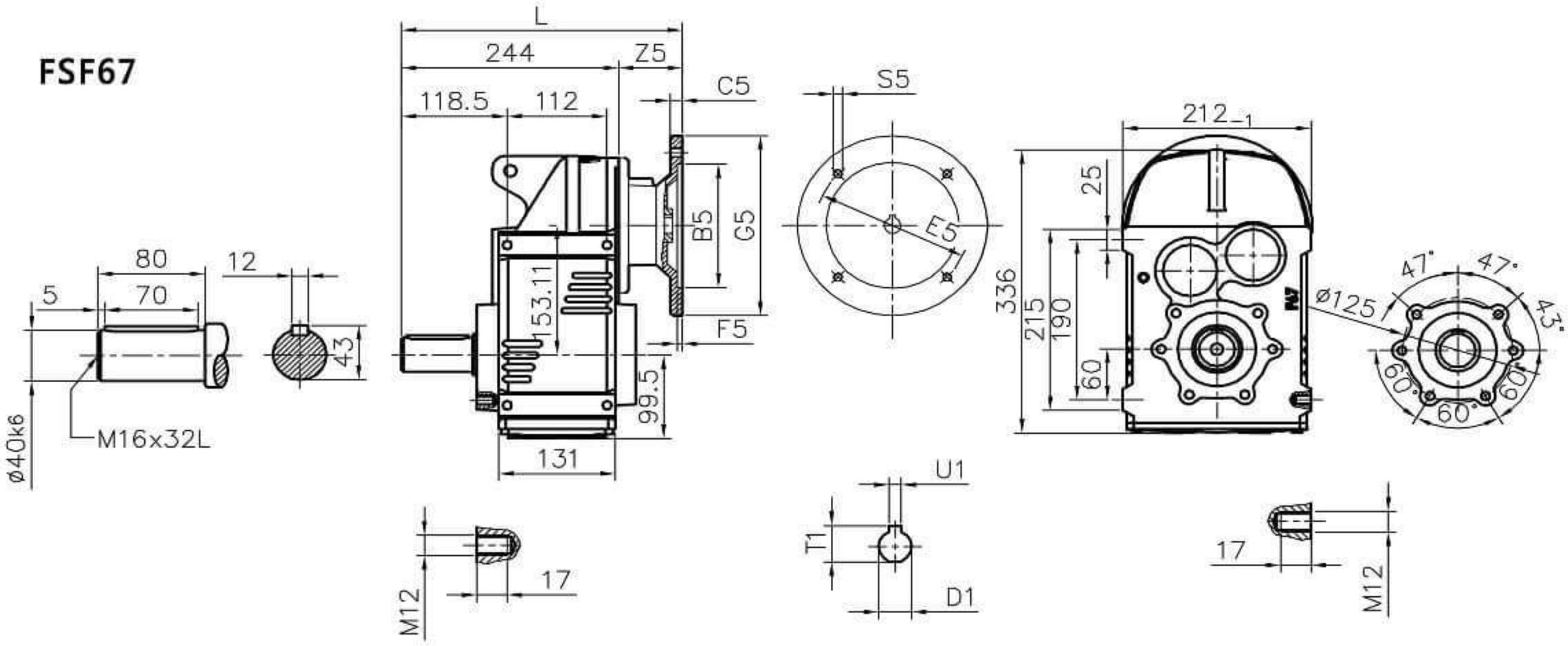
	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63 *	95	10	115	4	140	292.5	M8	46.5	11	12.8	4
IEC 71	110	10	130	4	160	292.5	M8	46.5	14	16.3	5
IEC 80	130	12	165	5	200	310.5	M10	64.5	19	21.8	6
IEC 90	130	12	165	5	200	310.5	M10	64.5	24	27.3	8
IEC 100	180	15	215	5	250	327	M12	81	28	31.3	8
IEC 112	180	15	215	5	250	327	M12	81	28	31.3	8

* 台灣東元馬達請參閱第122頁。

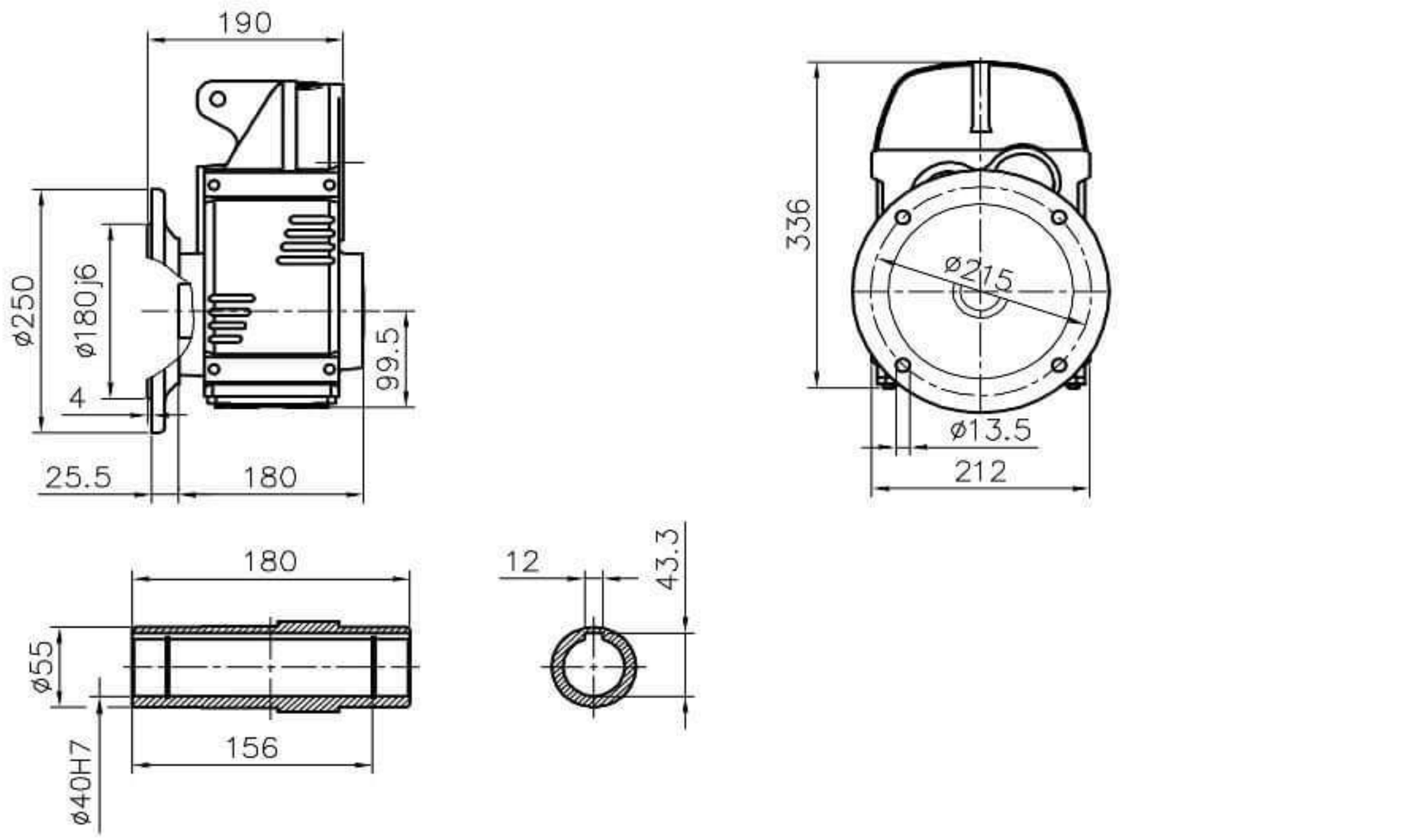


Parallel shaft helical Gear
Dimension Sheets [mm]

FSF67



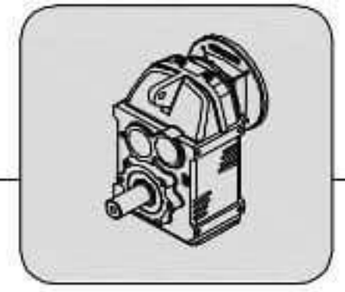
FMF67



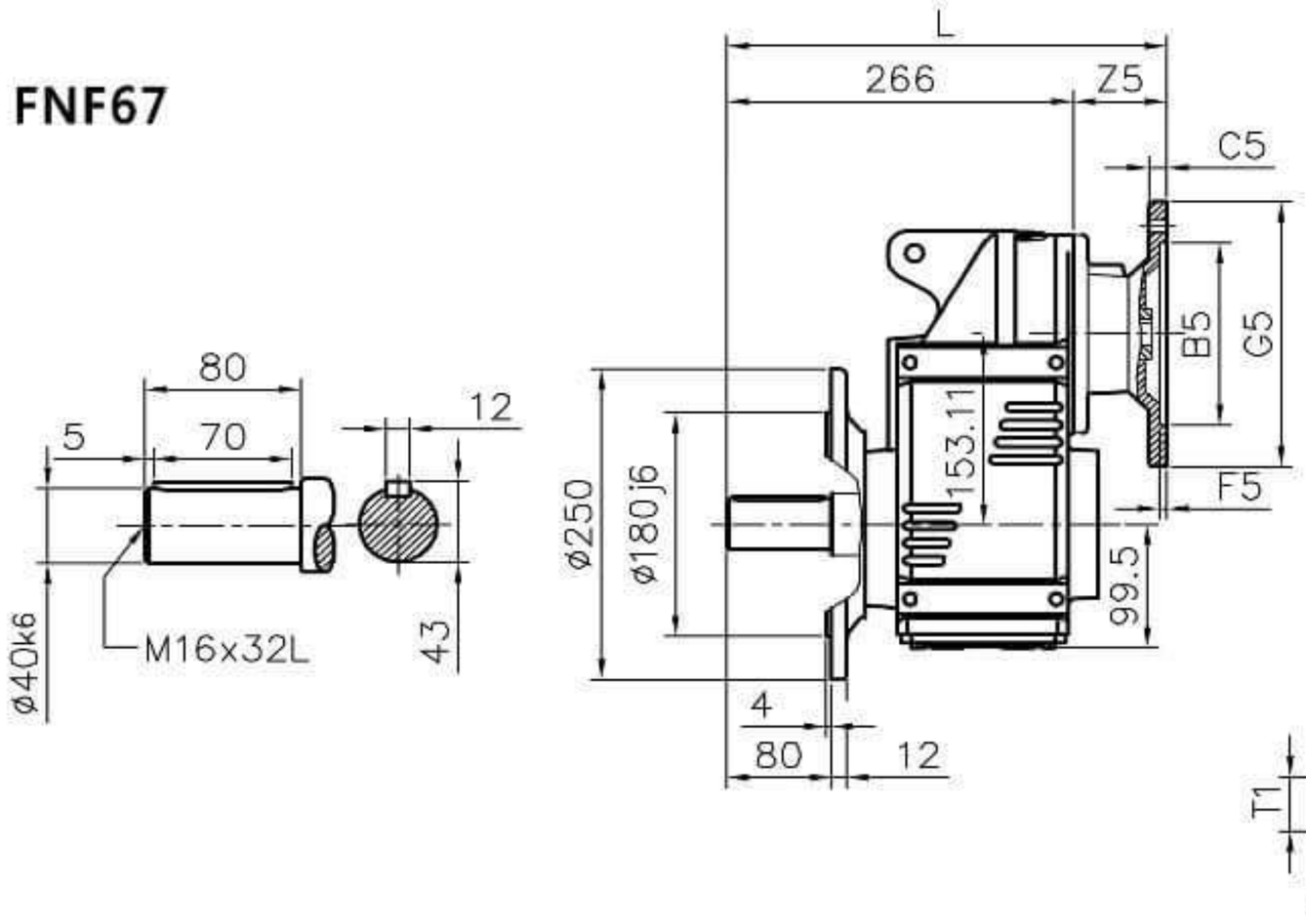
For the dimensions concerning the solid input shaft, please refer to the table shown at page 124.
For the dimensions concerning the motor input, please refer to the table shown at page 123.
入力為實心軸之尺寸表，請參閱第124頁。
入力為馬達直結型之尺寸表，請參閱第123頁。

	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63 *	95	10	115	4	140	290.5	M8	46.5	11	12.8	4
IEC 71	110	10	130	4	160	290.5	M8	46.5	14	16.3	5
IEC 80	130	12	165	5	200	308.5	M10	64.5	19	21.8	6
IEC 90	130	12	165	5	200	308.5	M10	64.5	24	27.3	8
IEC 100	180	15	215	5	250	325	M12	81	28	31.3	8
IEC 112	180	15	215	5	250	325	M12	81	28	31.3	8

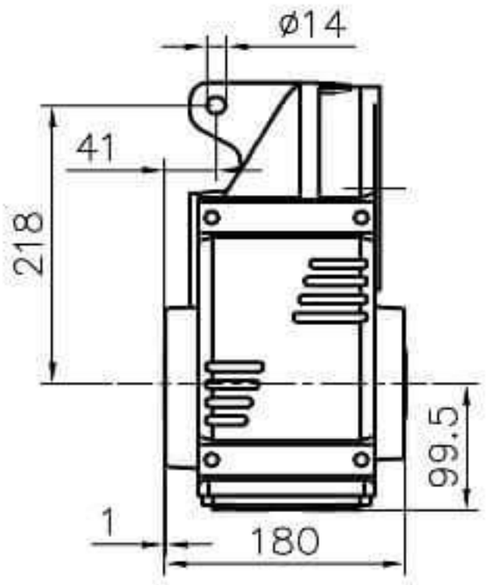
* 台灣東元馬達請參閱第122頁。

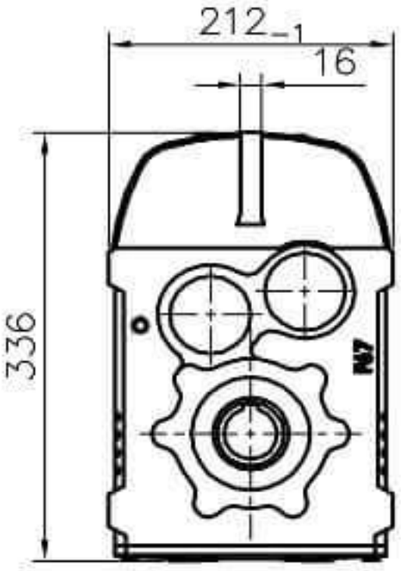


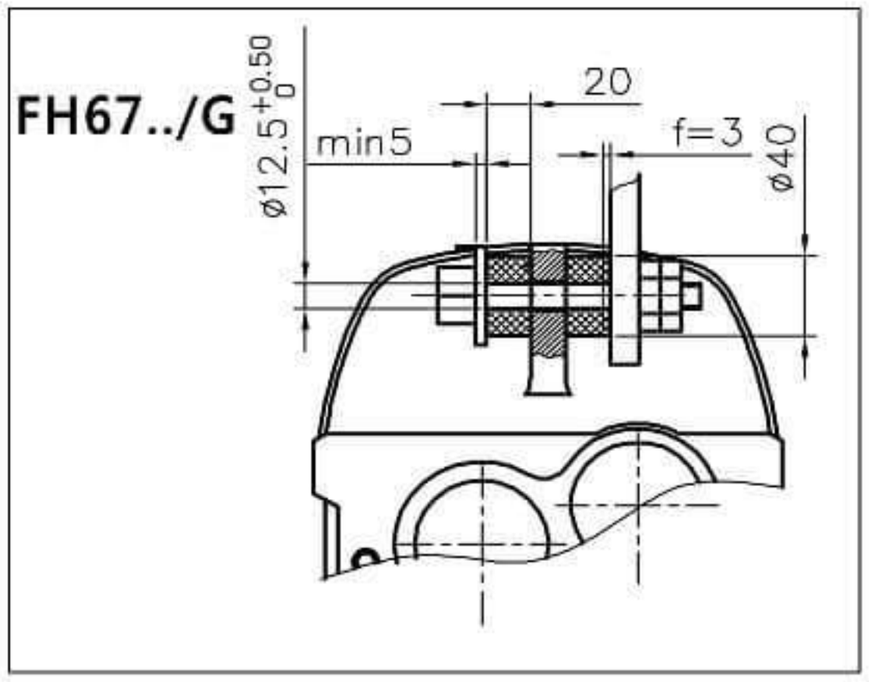
FNF67

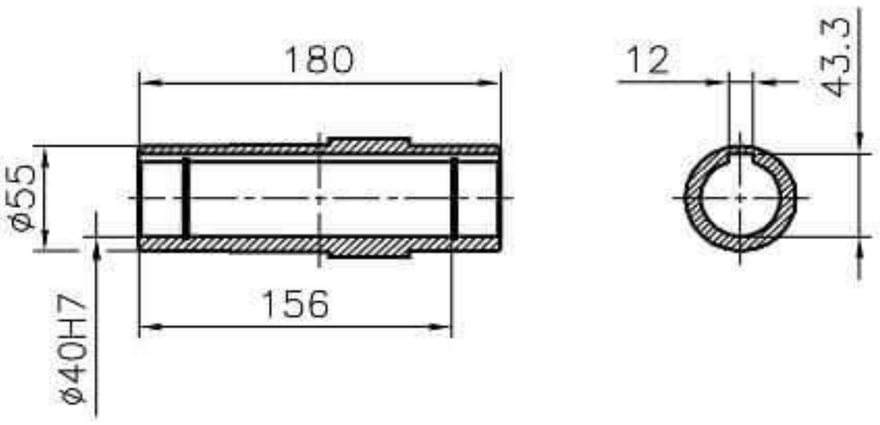


FHF67



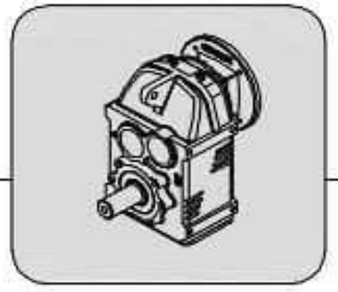






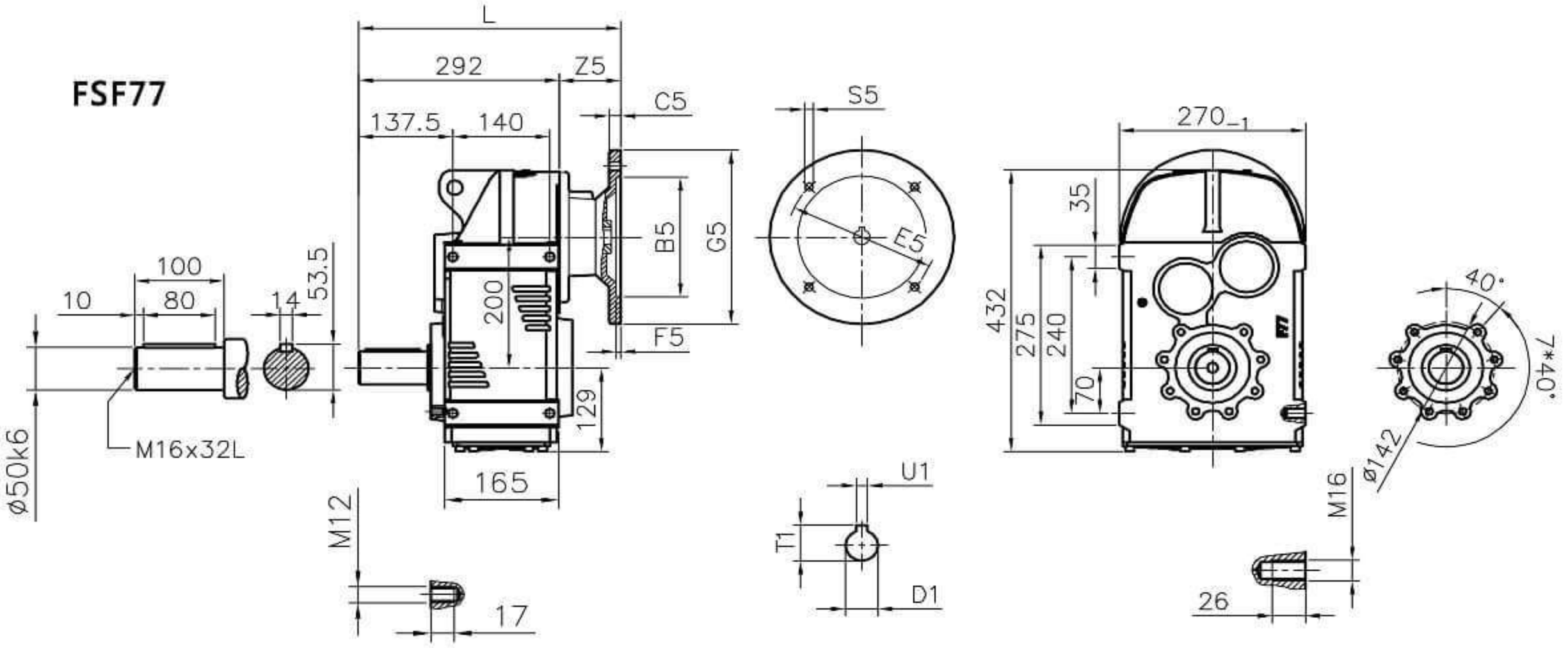
	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 63 *	95	10	115	4	140	312.5	M8	46.5	11	12.8	4
IEC 71	110	10	130	4	160	312.5	M8	46.5	14	16.3	5
IEC 80	130	12	165	5	200	330.5	M10	64.5	19	21.8	6
IEC 90	130	12	165	5	200	330.5	M10	64.5	24	27.3	8
IEC 100	180	15	215	5	250	347	M12	81	28	31.3	8
IEC 112	180	15	215	5	250	347	M12	81	28	31.3	8

* 台灣東元馬達請參閱第122頁。

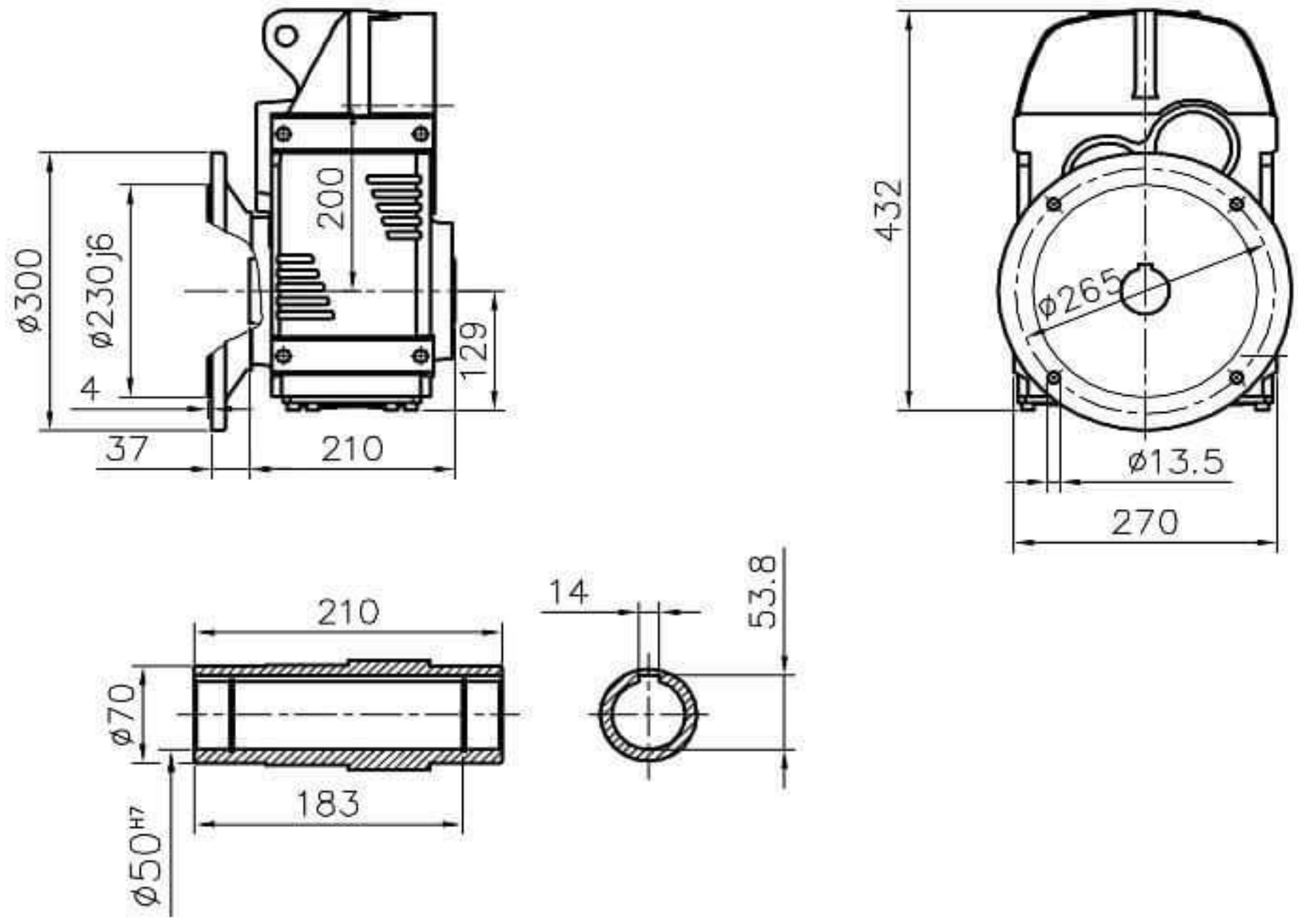


Parallel shaft helical Gear
Dimension Sheets [mm]

FSF77

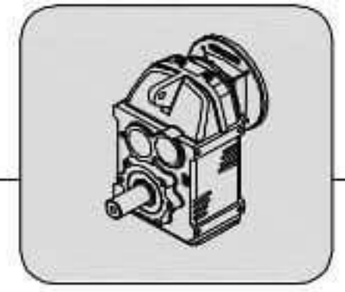


FMF77

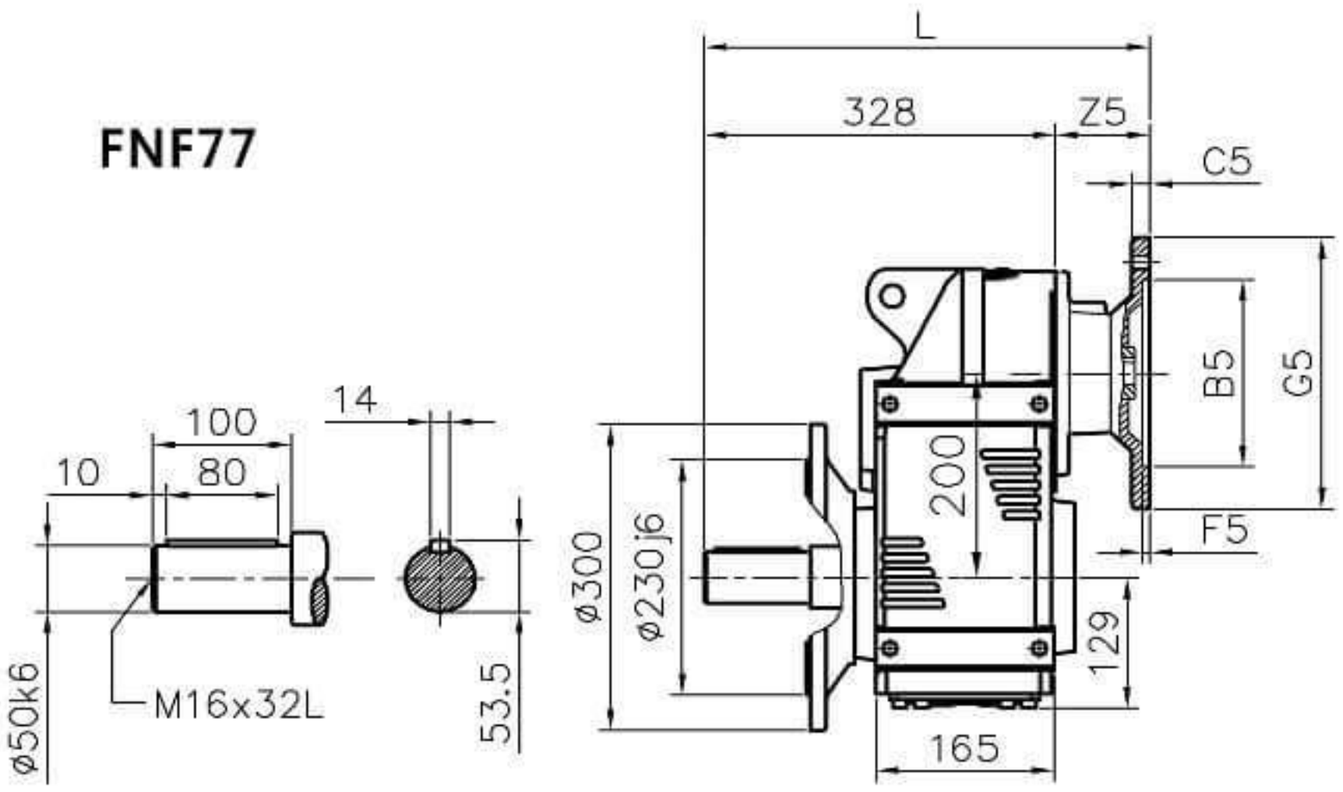


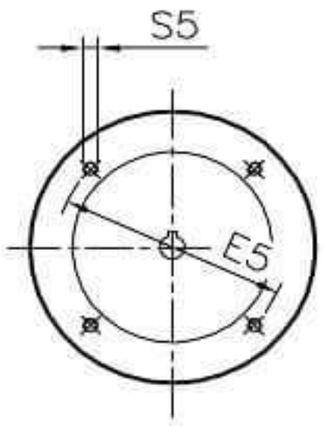
For the dimensions concerning the solid input shaft, please refer to the table shown at page 124.
For the dimensions concerning the motor input, please refer to the table shown at page 123.
入力為實心軸之尺寸表，請參閱第124頁。
入力為馬達直結型之尺寸表，請參閱第123頁。

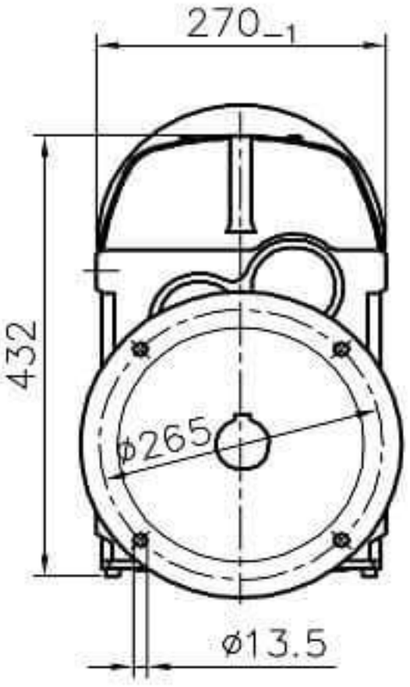
	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 80	130	12	165	5	200	351	M10	59	19	21.8	6
IEC 90	130	12	165	5	200	351	M10	59	24	27.3	8
IEC 100	180	15	215	5	250	367.5	M12	75.5	28	31.3	8
IEC 112	180	15	215	5	250	367.5	M12	75.5	28	31.3	8
IEC 132	230	16	265	6	300	416	M12	124	38	41.3	10

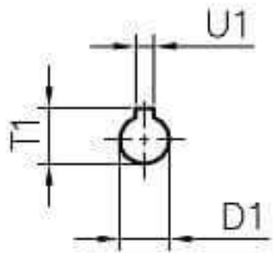


FNF77

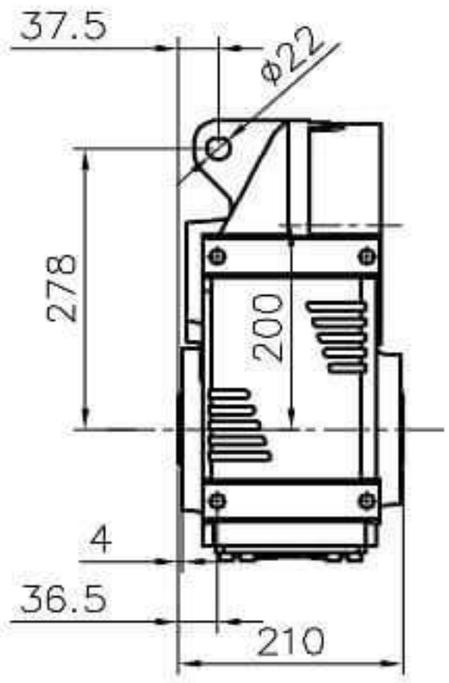


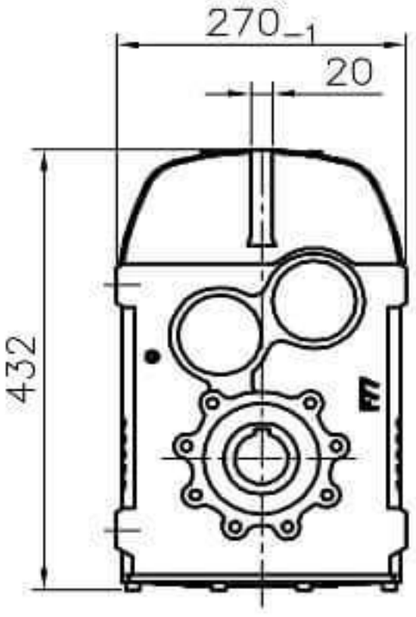


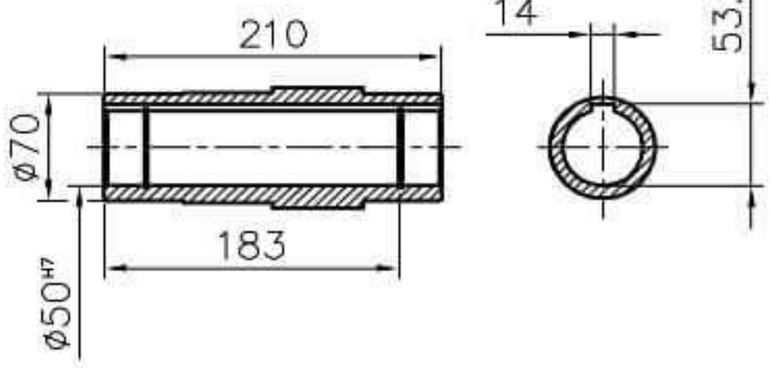




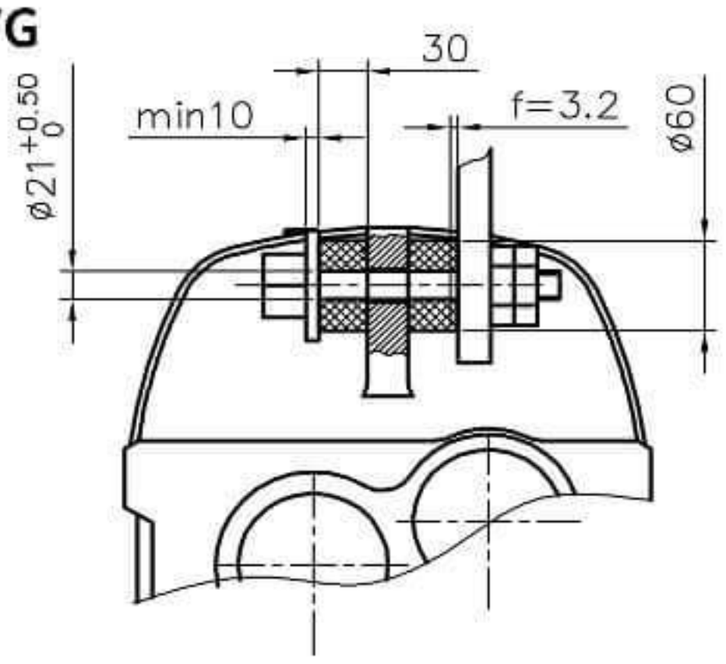
FHF77



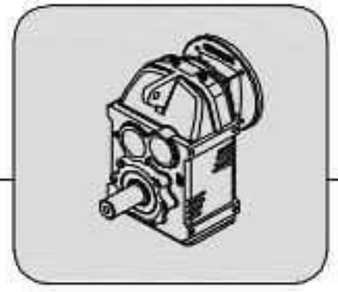




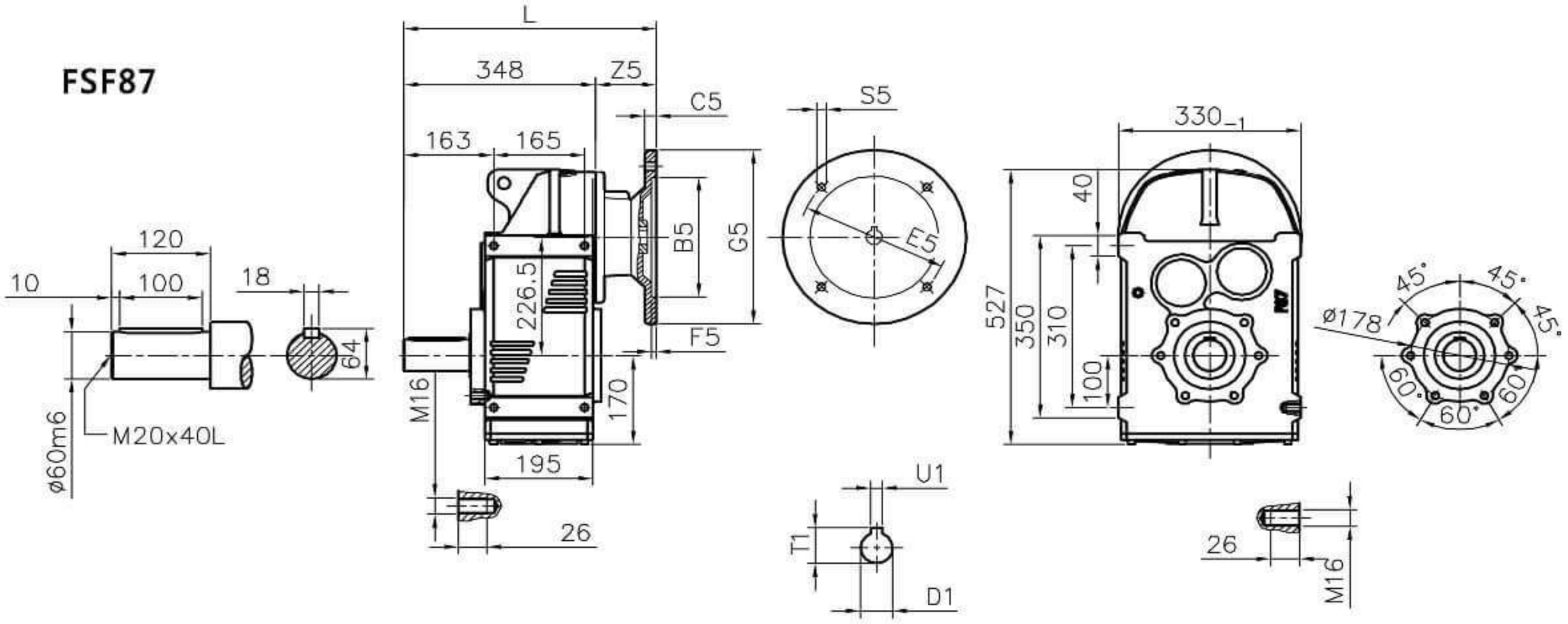
FH..77/G



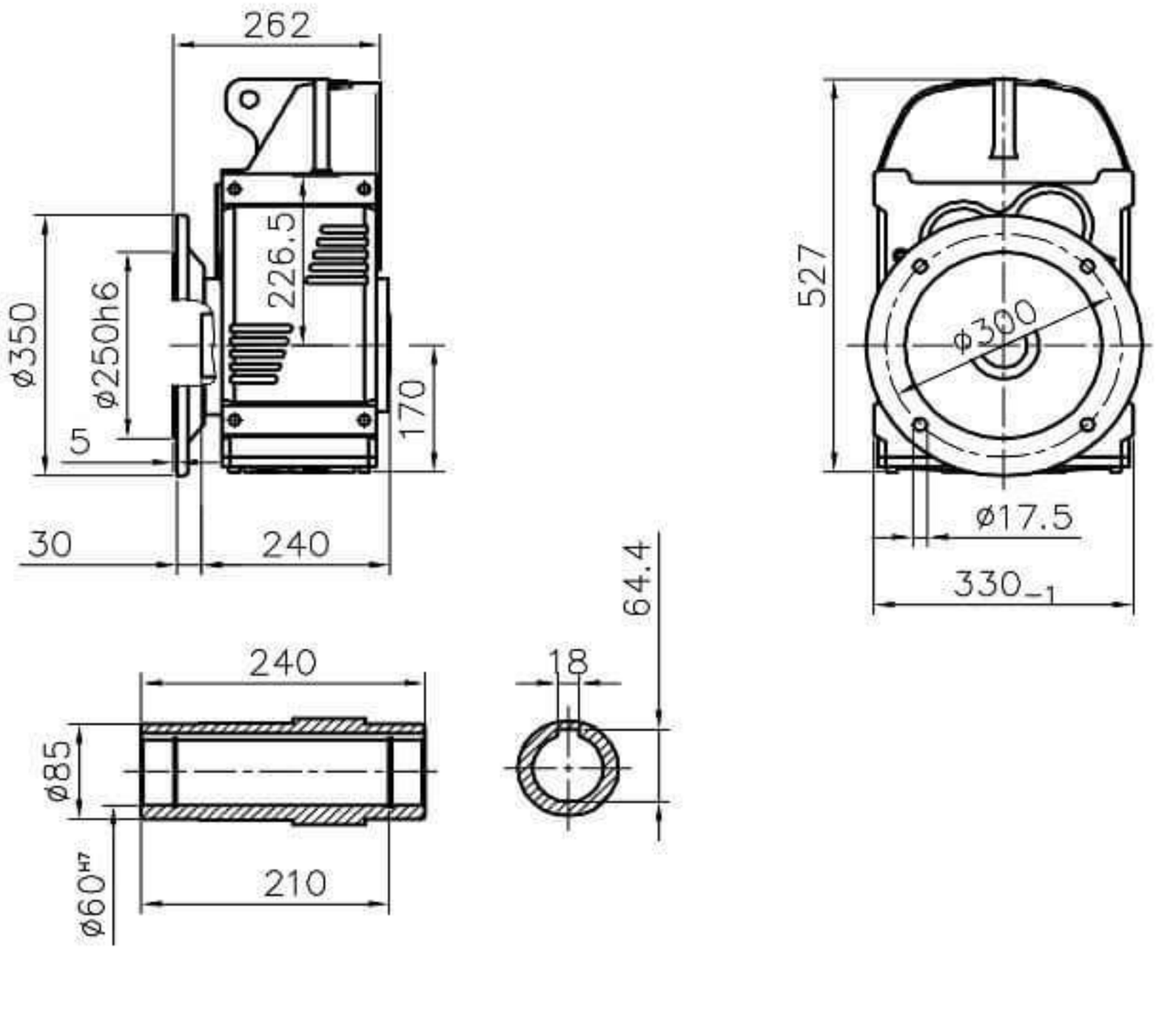
	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 80	130	12	165	5	200	387	M10	59	19	21.8	6
IEC 90	130	12	165	5	200	387	M10	59	24	27.3	8
IEC 100	180	15	215	5	250	403.5	M12	75.5	28	31.3	8
IEC 112	180	15	215	5	250	403.5	M12	75.5	28	31.3	8
IEC 132	230	16	265	6	300	452	M12	124	38	41.3	10



FSF87

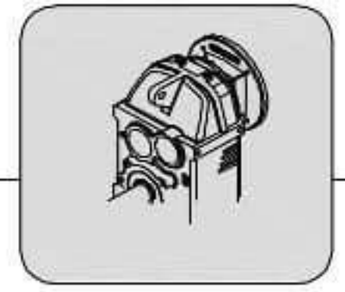


FMF87

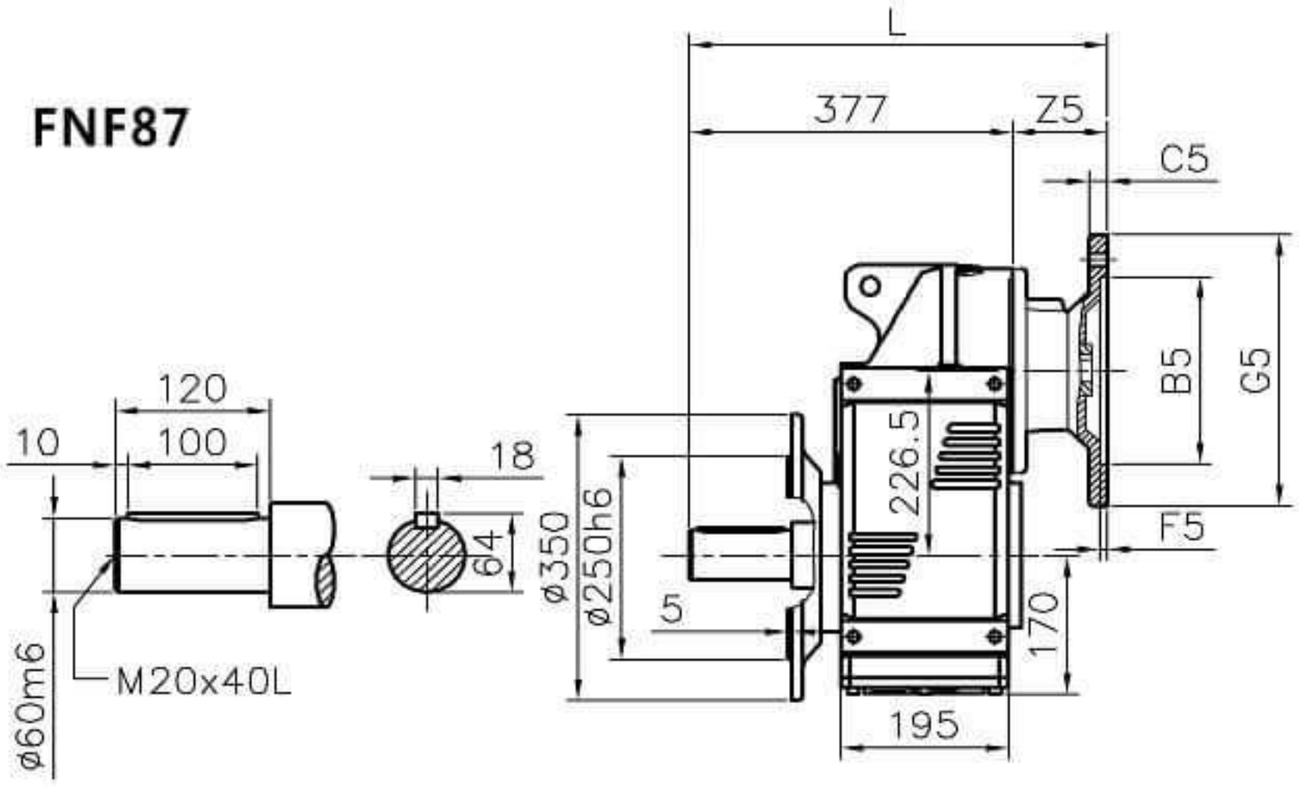


For the dimensions concerning the solid input shaft, please refer to the table shown at page 124.
For the dimensions concerning the motor input, please refer to the table shown at page 123.
入力為實心軸之尺寸表，請參閱第124頁。
入力為馬達直結型之尺寸表，請參閱第123頁。

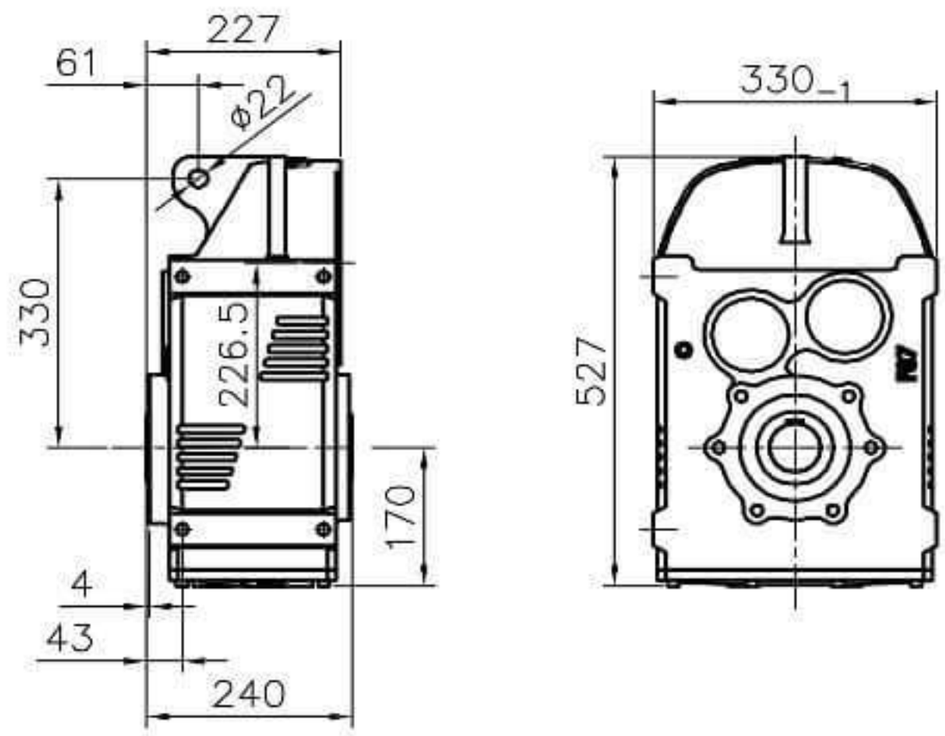
	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 80	130	12	165	5	200	397.5	M10	49.5	19	21.8	6
IEC 90	130	12	165	5	200	397.5	M10	49.5	24	27.3	8
IEC 100	180	15	215	5	250	414	M12	66	28	31.3	8
IEC 112	180	15	215	5	250	414	M12	66	28	31.3	8
IEC 132	230	16	265	6	300	462.5	M12	114.5	38	41.3	10
IEC 160	250	20	300	6	350	498.5	M16	150.5	42	45.3	12



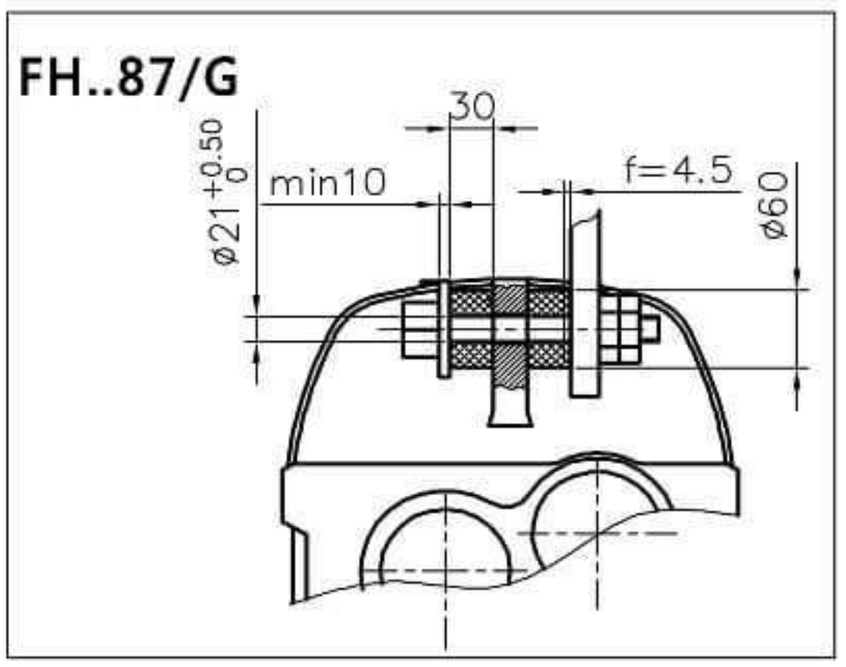
FNF87

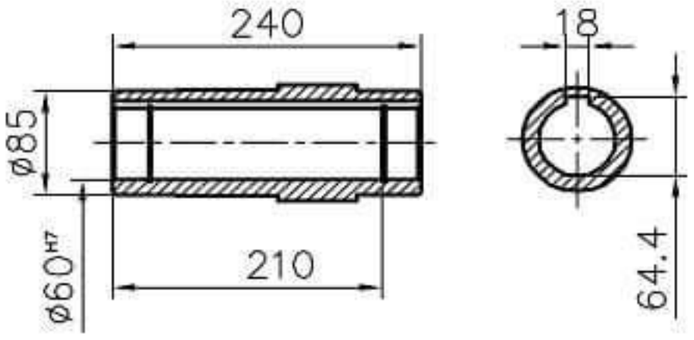


FHF87

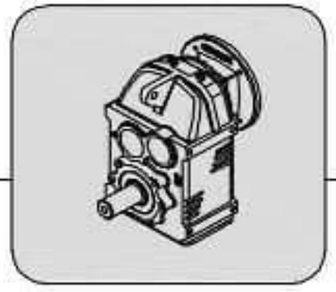


FH..87/G



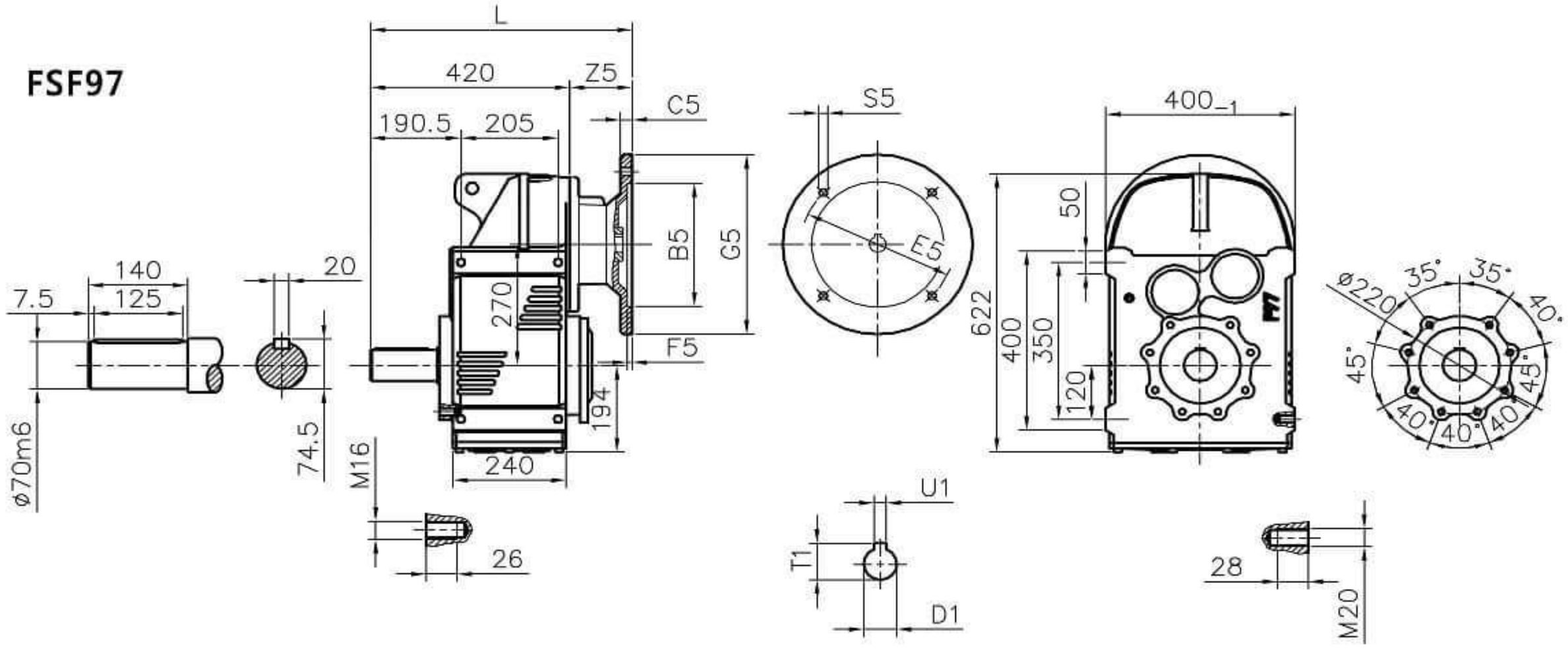


	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 80	130	12	165	5	200	426.5	M10	49.5	19	21.8	6
IEC 90	130	12	165	5	200	426.5	M10	49.5	24	27.3	8
IEC 100	180	15	215	5	250	443	M12	66	28	31.3	8
IEC 112	180	15	215	5	250	443	M12	66	28	31.3	8
IEC 132	230	16	265	6	300	491.5	M12	114.5	38	41.3	10
IEC 160	250	20	300	6	350	527.5	M16	150.5	42	45.3	12

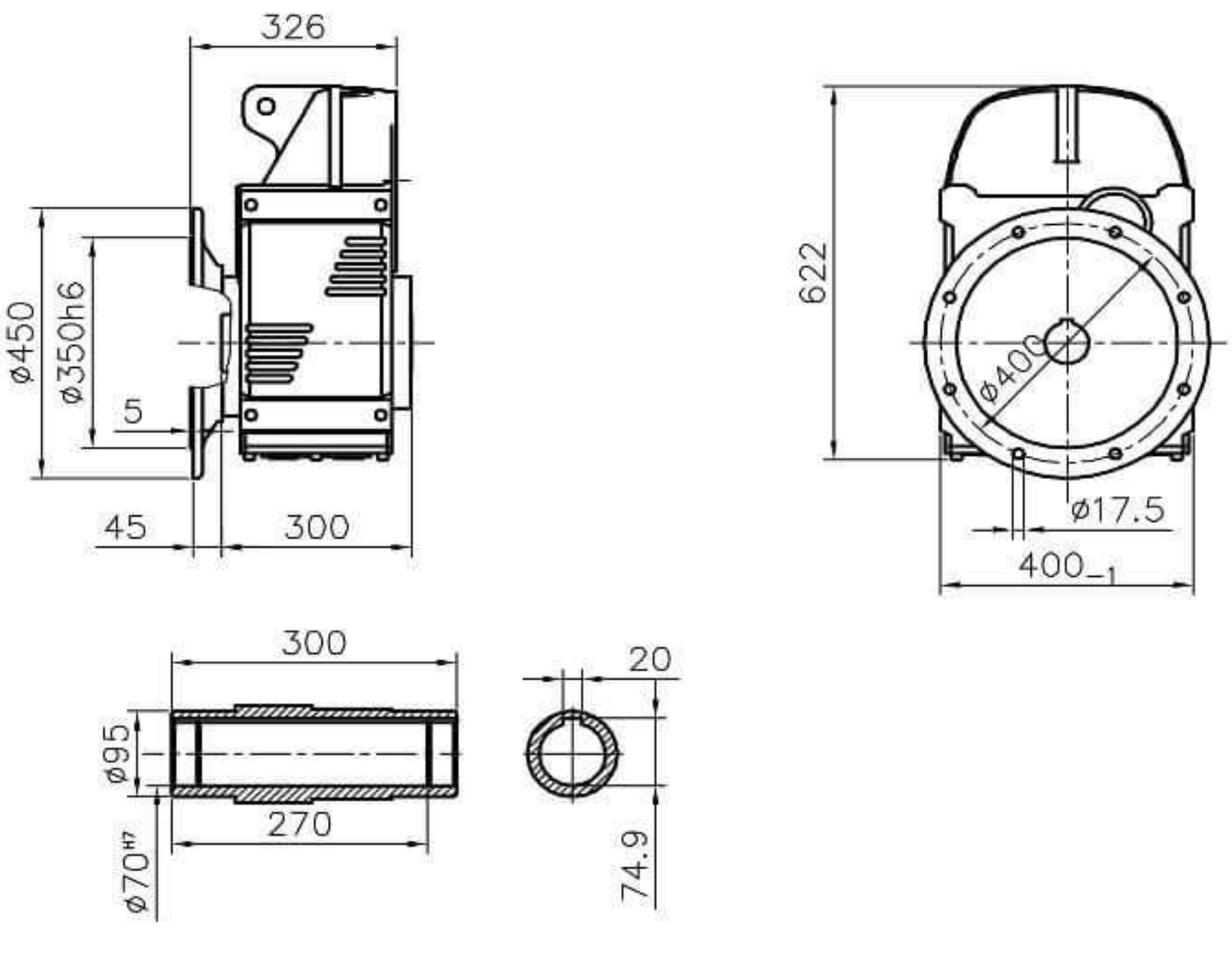


Parallel shaft helical Gear
Dimension Sheets [mm]

FSF97



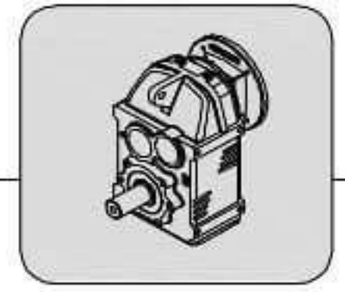
FMF97



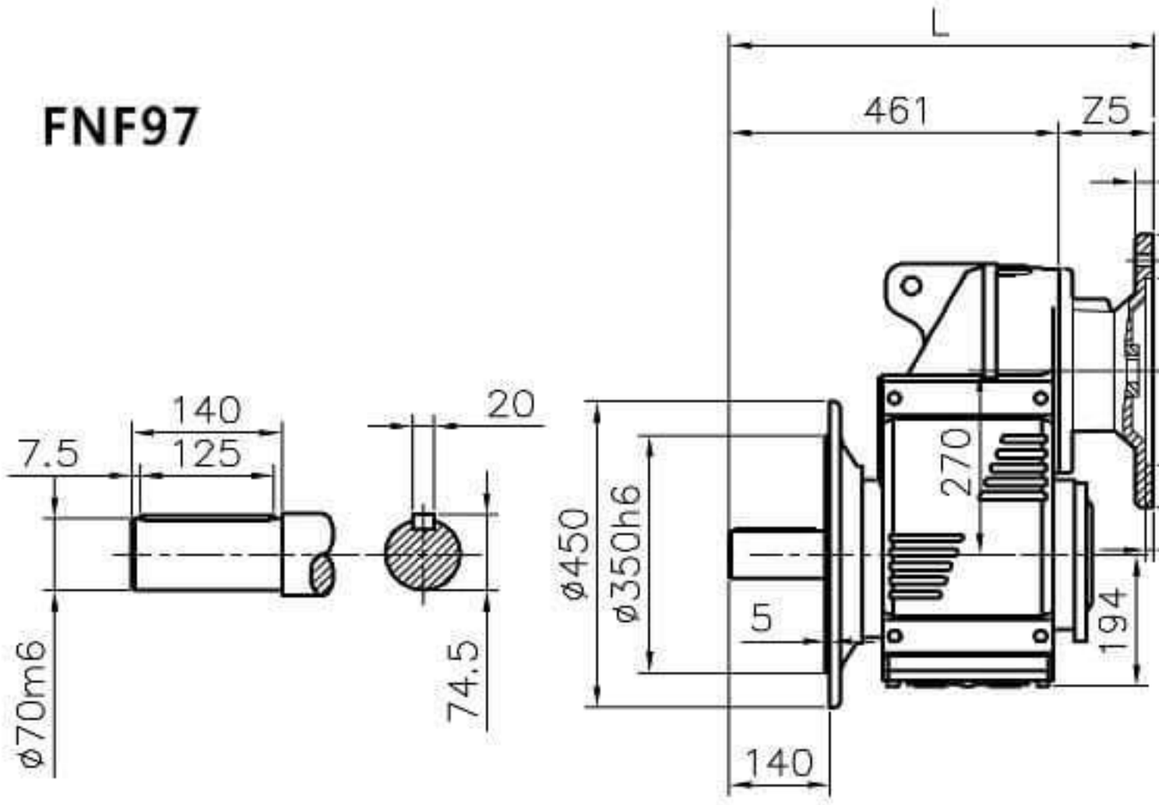
For the dimensions concerning the solid input shaft, please refer to the table shown at page 124.
For the dimensions concerning the motor input, please refer to the table shown at page 123.
入力為實心軸之尺寸表，請參閱第124頁。
入力為馬達直結型之尺寸表，請參閱第123頁。

	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 100	180	15	215	5	250	482	M12	62	28	31.3	8
IEC 112	180	15	215	5	250	482	M12	62	28	31.3	8
IEC 132	230	16	265	6	300	526.5	M12	106.5	38	41.3	10
IEC 160	250	20	300	6	350	562.5	M16	142.5	42	45.3	12
IEC 180 *	250	20	300	6	350	571.5	M16	151.5	48	51.8	14

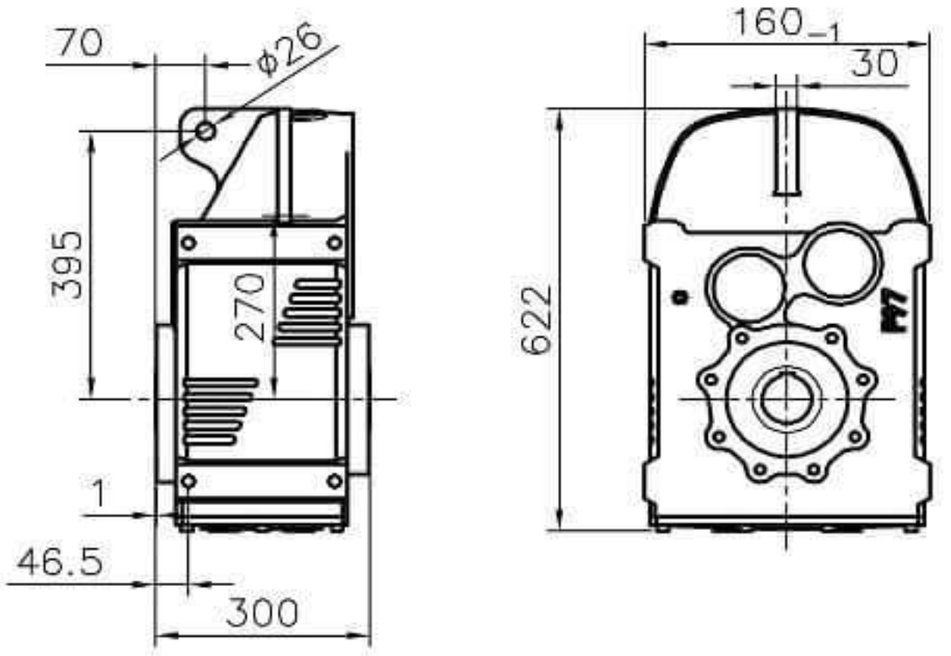
* 台灣東元馬達請參閱第122頁。

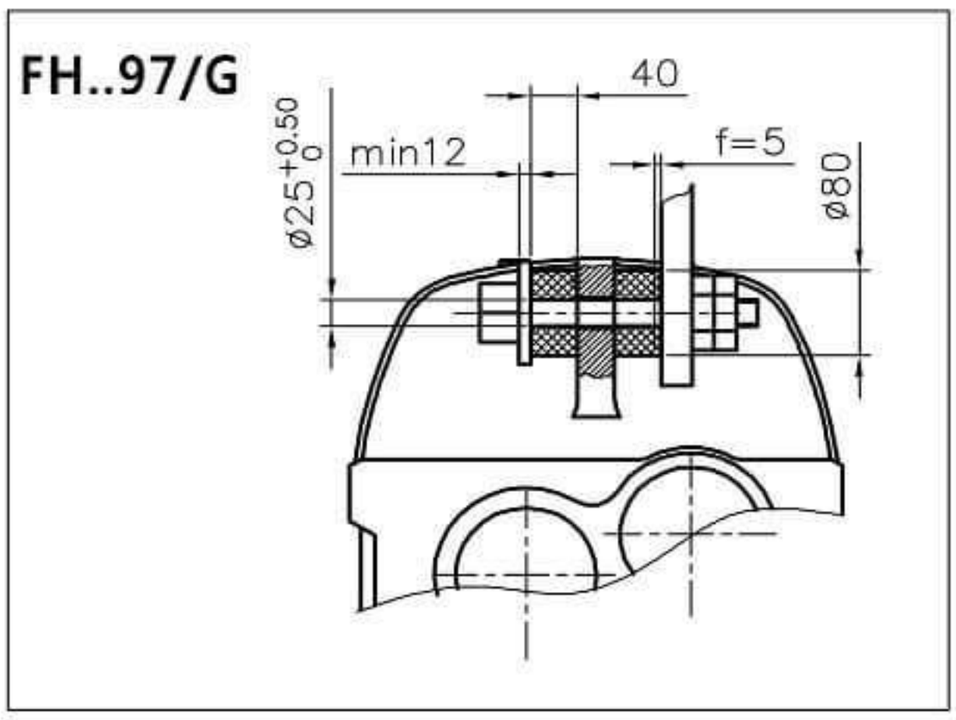


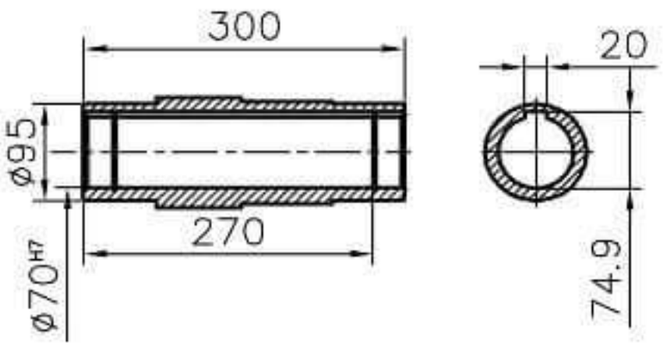
FNF97



FHF97





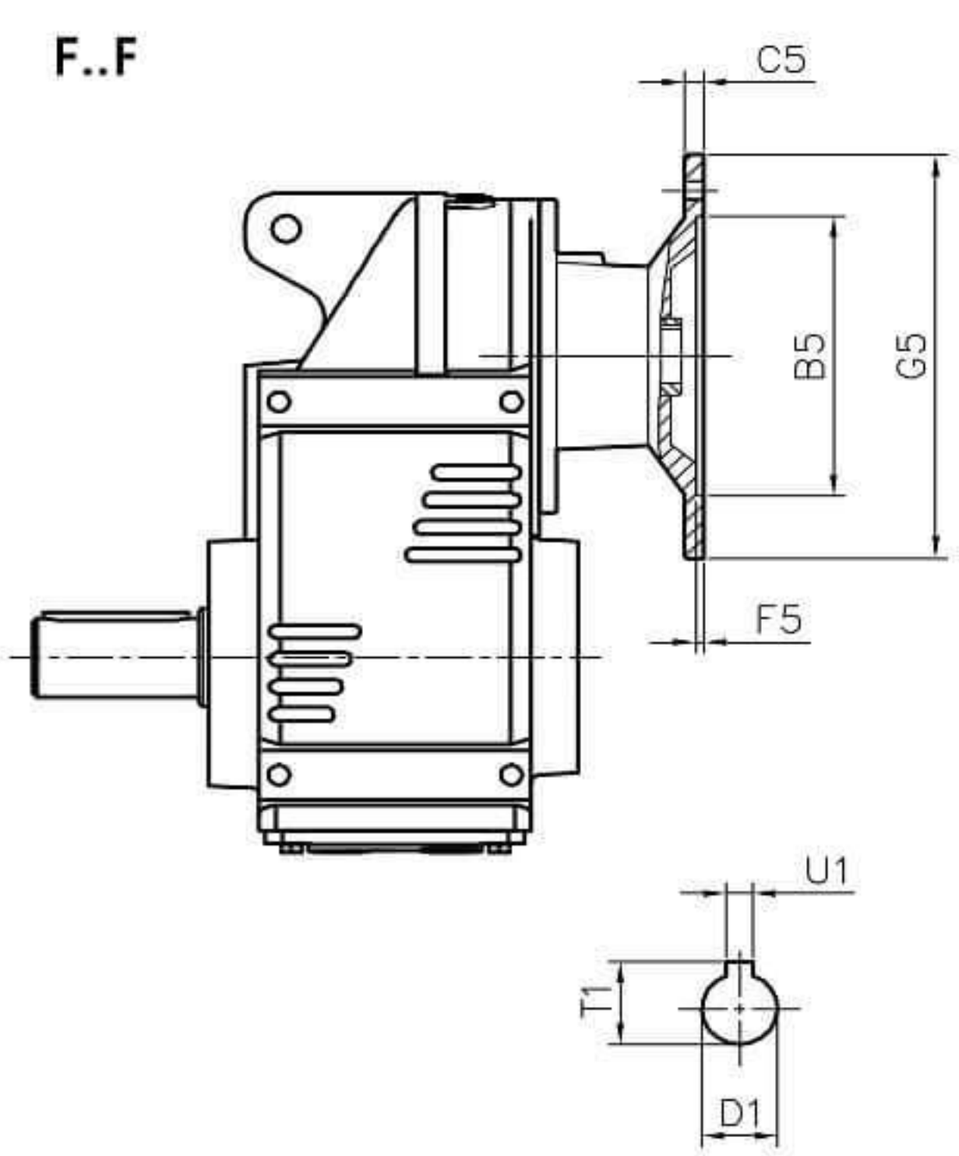


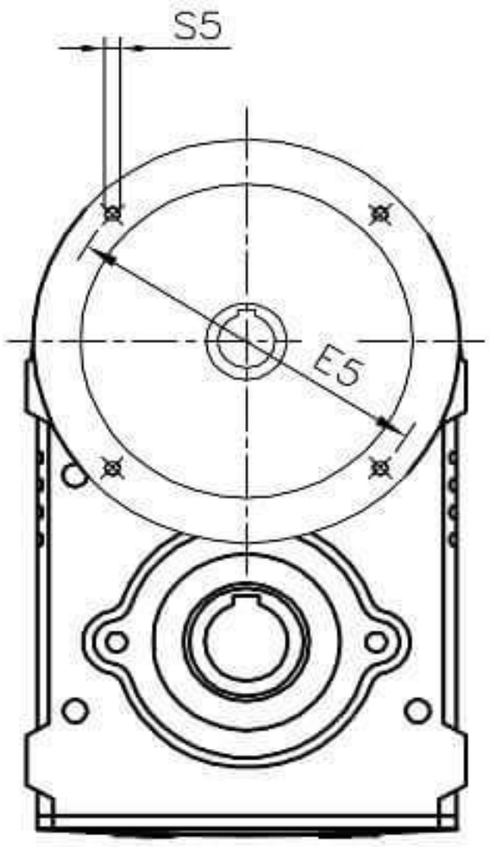
	B5	C5	E5	F5	G5	L	S5	Z5	D1	T1	U1
IEC 100	180	15	215	5	250	523	M12	62	28	31.3	8
IEC 112	180	15	215	5	250	523	M12	62	28	31.3	8
IEC 132	230	16	265	6	300	567.5	M12	106.5	38	41.3	10
IEC 160	250	20	300	6	350	603.5	M16	142.5	42	45.3	12
IEC 180 *	250	20	300	6	350	612.5	M16	151.5	48	51.8	14

* 台灣東元馬達請參閱第122頁。

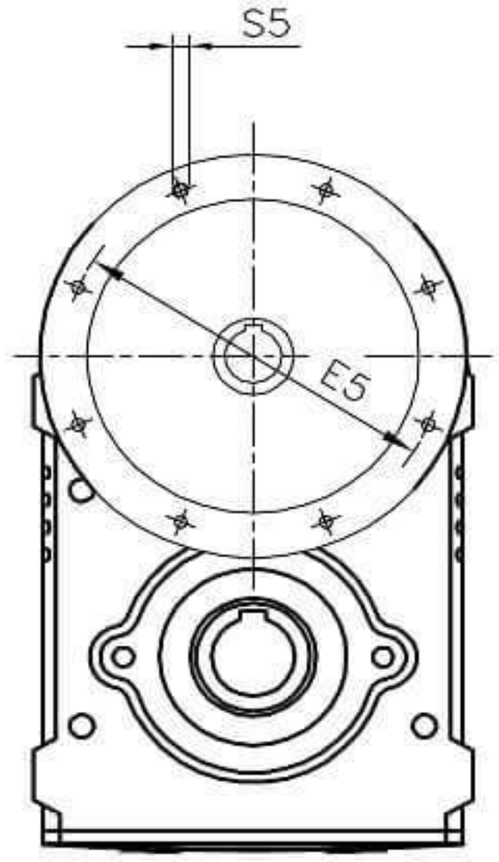
法蘭入力 Input Flanges

F..F





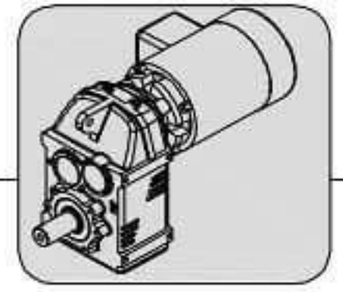
≦180LC



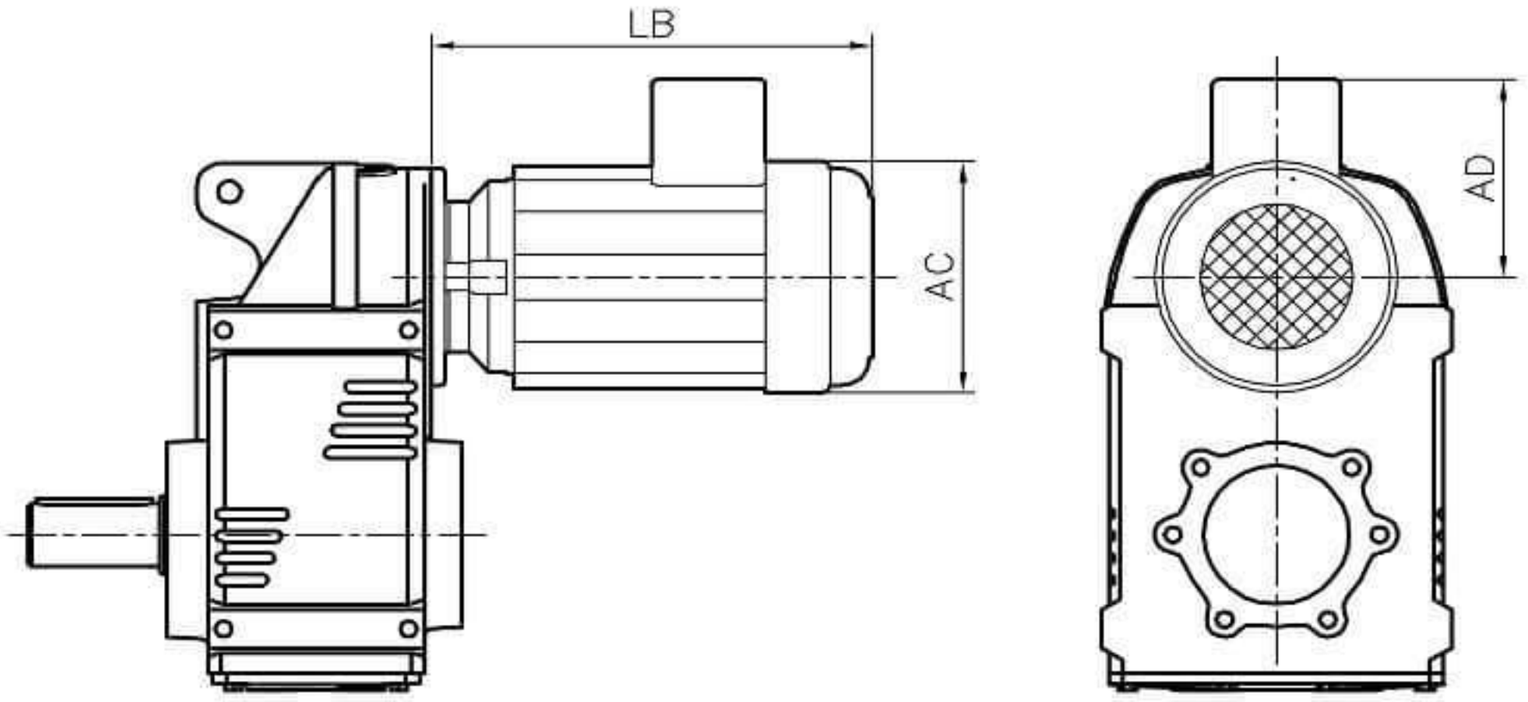
≧200LC

輸入馬力 HP - 4P	IEC Frame	B5	C5	E5	F5	G5	S5	D1	T1	U1
0.25	63	110	10	130	4	160	M8	11	12.8	4
0.5	71	110	10	130	4	160	M8	14	16.3	5
1	80	130	12	165	5	200	M10	19	21.8	6
2	90L	130	12	165	5	200	M10	24	27.3	8
3	100L	180	15	215	5	250	M12	28	31.3	8
5	112M	180	15	215	5	250	M12	28	31.3	8
7.5	132S	230	16	265	6	300	M12	38	41.3	10
10	132M	230	16	265	6	300	M12	38	41.3	10
15	160M	250	20	300	6	350	M16	42	45.3	12
20	160L	250	20	300	6	350	M16	42	45.3	12
25 / 30	180MC	300	20	350	6	400	M16	48	51.8	14
40	180LC	300	20	350	6	400	M16	55	59.3	16
50 / 60	200LC	350	20	400	6	450	M16	60	64.4	18

This dimensional table is with specific frame sizes for TECO motor.
International IEC motor dimensions are referred to the specification as below.
本表適用於台灣東元馬達(4P)，如使用國際 IEC馬達，請參照各型號尺寸圖下方表格。



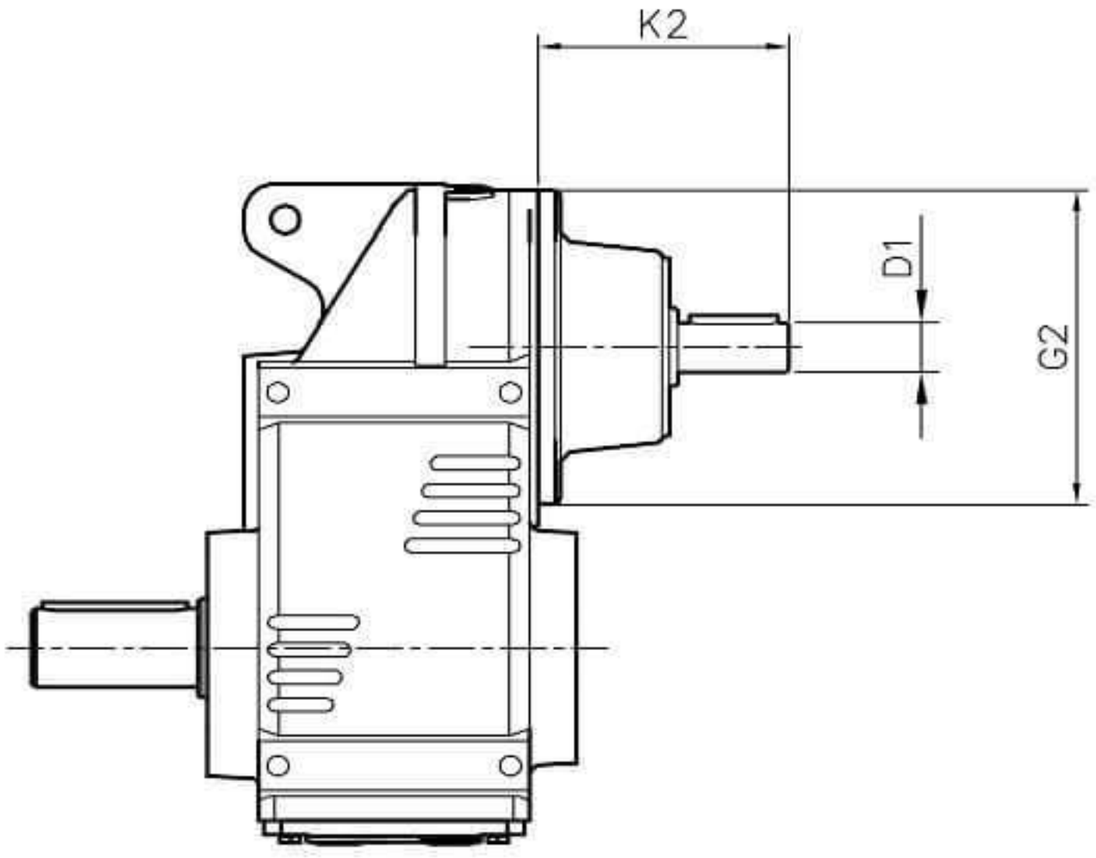
馬達直結
Couple With motor
F..M

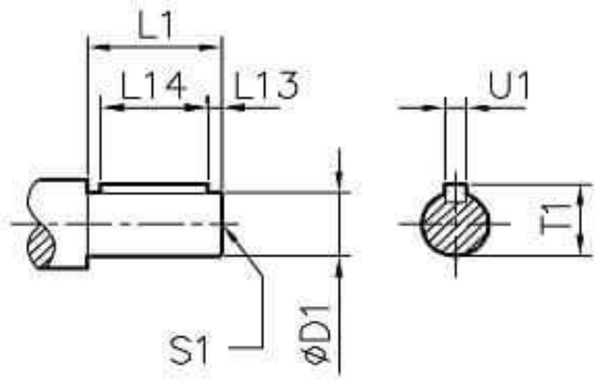


	MOTOR	AC	AD	LB
F..37	63	120	108	231.5
	71	136	116	247.5
	80	160	127	309
	90	176	139	354.5
F..47	63	120	108	231.5
	71	136	116	247.5
	80	160	127	309
	90	176	139	354.5
F..57	63	120	108	225
	71	136	116	241
	80	160	127	302.5
	90	176	139	348
	100	198	149	396
	112	220	167	408
F..67	63	120	108	225
	71	136	116	241
	80	160	127	302.5
	90	176	139	348
	100	198	149	396
	112	220	167	408
F..77	80	160	127	297
	90	176	139	342.5
	100	198	149	390.5
	112	220	167	402.5
	132S	258	184.5	441

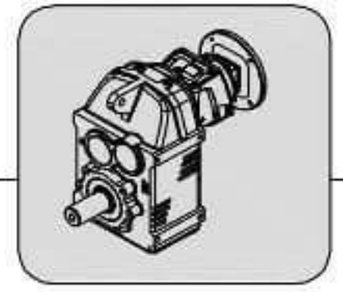
	MOTOR	AC	AD	LB
F..87	80	160	127	287.5
	90	176	139	333
	100	198	149	381
	112	220	167	393
	132S	258	184.5	431.5
	132M	258	184.5	469.5
	160M	343	263	550
F..97	100	198	149	377
	112	220	167	389
	132S	258	184.5	423.5
	132M	258	184.5	461.5
	160M	334	263	542
	160L	334	286	586
	180MC	382	305	607.5

實心入力
Solid Input Shaft
F..S

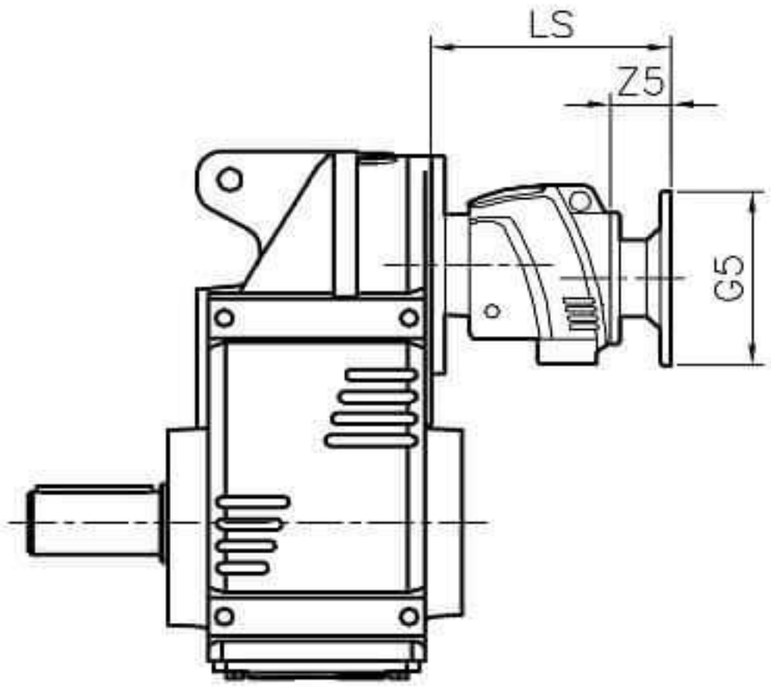




	D1	L1	L13	L14	T1	U1	S1	K2	G2	FIG
F..37	16k6	40	4	32	18	5	M5*10L	88	120	1
	19k6	40	4	32	21.5	6	M6*12L	90.5	120	1
F..47	16k6	40	4	32	18	5	M5*10L	88	120	1
	19k6	40	4	32	21.5	6	M6*12L	90.5	120	1
F..57	19k6	40	4	32	21.5	6	M6*12L	95	160	2
	24k6	50	5	40	27	8	M8*16L	119.5	160	2
F..67	19k6	40	4	32	21.5	6	M6*12L	95	160	2
	24k6	50	5	40	27	8	M8*16L	119.5	160	2
F..77	19k6	40	4	32	21.5	6	M6*12L	89.5	200	2
	19k6	40	4	32	21.5	6	M6*12L	106	200	2
	24k6	50	5	40	27	8	M8*16L	114	200	2
	38k6	80	5	70	41	10	M12*24L	177	200	2
F..87	19k6	40	4	32	21.5	6	M6*12L	95.5	250	2
	28k6	60	5	50	31	8	M8*16L	114.5	250	2
	38k6	80	5	70	41	10	M12*24L	167.5	250	2
	42k6	110	10	70	45	12	M16*32L	240.5	250	2
F..97	28k6	60	5	50	31	8	M8*16L	110.5	300	2
	38k6	80	5	70	41	10	M12*24L	159.5	300	2
	42k6	110	10	70	45	12	M16*32L	232.5	300	2
	48k6	110	10	80	51.5	14	M16*32L	237.5	300	2



雙連體多段
Multi-Staged Gear Unit



		LS	Z5	G5
F..37R17	IEC 56	181.5	56.5	80
	IEC 63	181.5	56.5	90
	IEC 71	181.5	56.5	105
	IEC 80	196	71	120
F..47R17	IEC 56	181.5	56.5	80
	IEC 63	181.5	56.5	90
	IEC 71	181.5	56.5	105
	IEC 80	196	71	120
F..57R37	IEC 63	217	53	140
	IEC 71	217	53	160
	IEC 80	235	71	200
	IEC 90	235	71	200
F..67R37	IEC 63	217	53	140
	IEC 71	217	53	160
	IEC 80	235	71	200
	IEC 90	235	71	200
F..77R37	IEC 63	211.5	53	140
	IEC 71	211.5	53	160
	IEC 80	229.5	71	200
	IEC 90	229.5	71	200
F..87R57	IEC 63	241.5	46.5	140
	IEC 71	241.5	46.5	160
	IEC 80	259.5	64.5	200
	IEC 90	259.5	64.5	200
	IEC 100	276	81	250
	IEC 112	276	81	250
F..97R57	IEC 63	233.5	46.5	140
	IEC 71	233.5	46.5	160
	IEC 80	251.5	64.5	200
	IEC 90	215.5	64.5	200
	IEC 100	268	81	250
	IEC 112	268	81	250

高雄總公司 Head Office / Plant

成大精機工業股份有限公司

高雄市 仁武區 鳳仁路 後庄巷118號
電話: 886-7-3727007 (代表號)
傳真: 886-7-3727267
電子信箱: sales@chenta.com
網站: http://www.chenta.com/.com

上海分公司 Shanghai Plant

上海成奕精密機械有限公司

上海市 嘉定區 馬陸鎮
台商機械工業園區 敬學路158號
電話: 86-21-6915 6255
傳真: 86-21-6915 6605
電子信箱: cysd@chenta.com

Headquarter:

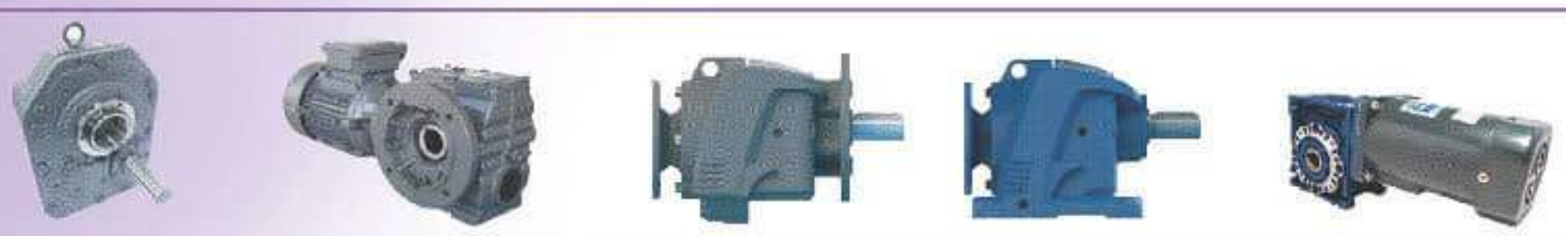
CHENTA PRECISION MACHINERY INDUSTRIAL INC.

118 Hall Tran Lane, Jen Wu District, Kaohsiung City , Taiwan
Tel: 886-7-3727007(REP.)
Fax: 886-7-3727267
email: sales@chenta.com
web: http://www.chenta.com/.com

CHENTA USA:

GearKing, Inc.

26241 Enterprise Ct.
Lake Forest, CA 92630, USA
Tel: (949)579-2789
Fax: (949)206-0868
Email: usa@chenta.com



經銷商

我們生產的減速機種款型豐富，規格與國際同步接軌，
性能優越，歡迎聯系，竭誠服務。

成大精機工業股份有限公司
CHENTA GEAR

平行軸斜齒減速機

PARALLEL SHAFT HELICAL GEARMOTORS

METRIC F

HF-2015.10-1