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Falk Ultramite Inline Mixer Drives Catalog

(Inch)

Falk Ultramite Inline Mixer Drive

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DESCRIPTION **PAGE**

SIZES 307 THRU 316

DIMENSIONS

Basic Information

Safety Notes

Falk Gear Drives — The Falk and Rexnord name on the gear drive is the purchaser's assurance that the drive was engineered, rated and manufactured to sound design practices. When one prime mover drives two pieces of equipment, one of which is either a standard Rexnord Geared Drive or a customer standard geared drive, the division of power between each machine is the responsibility of the customer. The power supplied to the geared drive must be equal to or less than the power for which the drive was selected using the appropriate service factor for the application. The customer must also assume the responsibility of isolating the gear drive from any vibratory or transient load induced by the driven equipment.

Install and operate Rexnord products in conformance with applicable local and national safety codes and per Rexnord installation manuals which are shipped with gear drives and are also available on our website at www.rexnord.com. Suitable guards for rotating members may be purchased from Rexnord as optional accessories. Consult your local Rexnord Representative for complete details.

Factory Warranty — We're so confident in the performance and reliability of our latest generation of Falk Gear Drives that we're backing this comprehensive offering with the best standard warranty in the business. Our full, three-year heavy-duty warranty provides shaft-to-shaft protection on all Falk components — including bearings and seals (warranty extends for three years from date of shipment). It's an industry first and one more powerful reason why Falk is your ultimate bottom-line value.

See Extended Warranty statement (100-003) on our website: www.rexnord.com/terms

People Conveying Equipment — Selection of Rexnord Gear Drives for applications whose primary purpose is the transportation of people is not approved. This includes such applications as freight or passenger elevators, escalators, man lifts, work lift platforms and ski tows and ski lifts.

If the primary purpose of the application is material conveyance and occasionally people are transported, the Rexnord warranty may remain in effect provided the design load conditions are not exceeded and certification to the appropriate safety codes and load conditions has been obtained by the system designer or end user from the appropriate enforcement authorities.

Gear Drive Ratings — All gear drive ratings in this bulletin allow 100% overload for starting loads and momentary overloads for electric motor driven applications operating 10 hours per day under uniform conditions. For other conditions, compute an equivalent horsepower by multiplying the actual horsepower required for the application by the appropriate Service Factor.

Gear Drive Identification — Tables in this selection guide identify gear drives based on the drive nomenclature.

Horsepower & Torque/Gearmotor Drives — Gearmotor Drive mechanical horsepower and delivered torque ratings are tabulated only at 1750 rpm. Horsepower, output torque, and LSS OHL ratings for Gearmotor Drives do not always correspond to those of the comparable Inline Gear Drive of the same size, reduction, and ratio.

In selected cases the Gearmotor Drive will have more rating than the corresponding Inline Gear Drive. When additional rating for Gearmotor Drives at 1750 rpm input is available, it will be as stated in the Gearmotor Drive Selection Tables. For Gearmotor Drive ratings at input speeds other than 1750 rpm, consult the Factory.

Basic Information (cont.)

Horsepower & Torque/Gear Drives — Gear Drive mechanical horsepower and output torque ratings are tabulated in the Selection Guide to permit selections for specific application requirements. When the required input speed falls between two tabulated input speeds of a specific drive designation (size, reduction and ratio), interpolate to determine drive rating.

Lubricants — Drive Size 307UC will be supplied filled with a quantity of EP mineral oil suitable for the drive mounting position specified at the time of the order.

Drive Sizes 308 thru 313UC are supplied without lubricant. The appropriate fill quantities and lubricant recommendations are stated in Manual GR3-015.

Stored & Inactive Gear Drives — Each gear drive is protected with rust preventive that will protect parts against rust for a period of 6 months in an indoor dry shelter.

Sizes 308 thru 313UC — If a gear drive is to be stored, or is inactive after installation beyond the above periods, drain oil from housing and spray all internal parts with a rust preventive oil that is soluble in lubricating oil or add "Motorstor"™ vapor phase rust inhibitor at the rate of one ounce per cubic foot of internal drive space (or 5% of sump capacity) and rotate the shafts several times by hand. Before operating, drives which have been stored or inactive must be filled to the proper level with oil meeting the specifications given in Manual GR3-015. Refer to Manual 128-014 for "Start-up after Storage" instructions.

Periodically inspect stored or inactive gear drives and spray or add rust inhibitor every six months, or more often if necessary. Indoor dry storage is recommended.

Gear drives ordered for extended storage can be treated at the Factory with a special preservative and sealed to rust-proof parts for periods longer than those cited previously.

Conditions Affecting Selection

Non–Standard Application Procedures

The following conditions may affect the gear drive selection procedure, drive size and auxiliary equipment being furnished.

Excessive Overloads — The maximum momentary or starting load must not exceed 200% of rated load (100% overload). Rated load is defined as gear drive rating with a Service Factor of 1.0. If the maximum starting or momentary load exceeds the above conditions, compute a second equivalent horsepower by dividing the peak load by two. The gear drive selected must have capacity equal to, or in excess of, the larger equivalent horsepower.

Reversing Service — Applications involving either more than 20 reversals per 10 hour period, or less than 20 reversals per 10 hour period with peak torques greater than 200% of normal load must be referred to the Factory.

Stop and Start Service — Applications involving frequent stop and start overloads in access of 10 times per day must be referred to the Rexnord Factory.

Brake Equipped Applications — When a gear drive is equipped with a "working" brake that is used to decelerate the motion of the system and the brake is located between the prime mover and the gear drive or on the rear of the motor, select the drive based on the brake rating or the highest equivalent horsepower, whichever is greater. If the brake is used for holding only and is applied after the motion of the system has come to rest, the brake rating must be less than 200% of the catalog rating, refer the application to the Factory. Also refer to the Factory all applications in which the brake is located on the output shaft of the gear drive.

Oversize Prime Mover — Published Service Factors do not cover applications that require oversize prime movers for high energy or peak loads. Refer such applications to the Factory for selection of suitable drives.

Speed Variation — Gear drives offered in this Selection Guide are designed to operate with splash lubrication at all speeds for which they are catalogued, provided the appropriate amount of lubricant is present based on the drive mounting position (Refer to Manual GR3-015 for oil quantity associated with each gear drive mounting position). Variation of speed between cataloged speeds, or at speeds falling between catalogued speeds, is permissible.

Lubrication of Size 307UC — These sizes are furnished filled with a quantity of oil. Quantity of oil furnished is based on the customer identified drive mounting position stated at the time of order. Standard drive mounting positions are shown in this selection guide. These sizes have no oil fill plug, oil drain plug, or vent plug. Standard oil furnished with the gear drive is a petroleum based extreme pressure lubricant conforming to AGMA Viscosity Grade 6EP, ISO Viscosity Grade 320, and no further lubrication of the gear drive is required.

Lubrication of Sizes 308 thru 313UC — These sizes are furnished without oil. Customer oil fill is required. They are furnished with oil fill plug, oil drain plug, and vent plug. Lubricant quantity lubricant specifications, location of plugs, and recommended oil change frequency are stated in Manual GR3-015.

Variable or Multi–Speed Applications – All Types — When selecting gear drives for multi-speed or variable speed application, determine the speed which develops the greatest torque and select the drive on this basis. If the speed is not listed in the selection table, use the next lower speed.

Effects of Solar Energy — If a drive operates in the sun at ambient temperatures over 100°F, then special measures must be taken to protect the drive from solar energy. This protection can consist of a canopy over the drive or reflective paint on the drive. If neither is possible, a heat exchanger or other cooling device maybe required.

Overhung Loads and Thrust Loads — The overhung load and thrust load ratings published in this bulletin are based on a combination of the most unfavorable conditions of rotation, speed, direction of applied load and drive loading. If the calculated load exceeds the published value, or if an overhung load and thrust load are applied simultaneously to a shaft, refer complete application information to the Rexnord Rexnord factory.

Non-Standard Mounting Positions — For non-standard mounting positions (other than those shown in this Selection Guide) refer to the Rexnord factory for lubricant level and quantity.

Double Seal Option — Certain applications may dictate the use of double seals. This option is provided at an additional charge.

General Information

- Rexnord standards apply unless otherwise specified.
- All dimensions are for reference only and are subject to change without notice unless certified.
- H.S. Shaft or HSS = High Speed Shaft.
- L.S. Shaft or LSS = Low Speed Shaft.

Reference Notes

★ Dimensions are for reference only and will vary with motor manufacturer.

† For higher ratio selections, consult the Rexnord factory. Check thermal input hp ratings. Selection tables are based on mechanical input hp ratings only.

‡ Thermal ratings are based upon the fitting of TEFC motor on gearmotors. For gear drives, consult the Rexnord factory.

UC — How to Select & Order Gearmotors

Before making any selections, refer to the Basic Information and Conditions Affecting Selections on Pages 3 and 4.

Selection of Gearmotors

1. Determine Service Factor — See pages 8 and 9.
2. Determine Motor Horsepower.
3. Determine Gearmotor Output Speed and Ratio.
4. Gearmotor Selection Tables are included on pages 14 through 22. These tables assume a motor base speed of 1750 rpm. For ratings at other base speeds, consult your authorized Sales Representative.

   Go to the page that contains selections based upon the specific c-face motor you will be using. For example, selections for a 2 hp, 1750 rpm 145TC frame motors are tabulated on page 14.

   Starting at the top of the first selection page pertinent to your motor requirement, move down the selections until a gearmotor meeting your output speed, ratio and service factor requirements is located.

   For example, consider an application with a 2 hp, 1750 rpm, 145TC frame motor, output speed of 35 rpm, nominal ratio of 50:1 and a required service factor of 1.50.

   Page 14 contains selections for a 2 hp, 1750 rpm, 145TC frame motor.

   The gearmotor 307UCFV2A-50.A8B has an output speed of 34.9 rpm, exact ratio of 50.15:1 and a service factor of 1.76. UCFV model units include heavy duty low speed shaft and bearings and are intended to be utilized in a vertical mounting configuration with the low speed shaft down.
5. Check Thermal Rating — The application adjusted thermal rating must equal or exceed the actual power transmitted (2 hp). Ratings are based upon an ambient temperature of 68°F. If the actual ambient is different, an ambient adjustment factor must be applied. Basic thermal ratings and ambient adjustment factors are included on page 31.
6. Check Overhung Load — The gearmotor selection tables provide the low speed shaft overhung load capacity of the gearmotor selected. If overhung load is present, calculate the value of the overhung load per instructions on page 25.

   Sprockets or other devices mounted on the output shaft should be sized and positioned so the gearmotor overhung load capacities are not exceeded. Should the applied overhung loads exceed the capacity of the initial gearmotor selected, a larger gearmotor of adequate capacity must be selected.
7. Check External Thrust Load and Bending Moments — Permissible thrust loads are provided on page 26.
8. Check Gearmotor Dimensions — pages 23 and 24.
9. UCFV model units include heavy duty low speed shaft and bearings and are intended to be utilized in a vertical mounting configuration with the low speed shaft down. If another mounting position is required, please consult your authorized Sales Representative. If a motor is to be ordered, specify motor mounting position, listed on page 11.

Example

Application: Dough mixer, vertical mounting, mixer shaft speed is 40 rpm, ambient temperature is 86°F.

Duty Cycle: 16 hrs per day.

Driver: 10 hp electric motor, 1750 rpm, 215TC frame, provided by Rexnord.

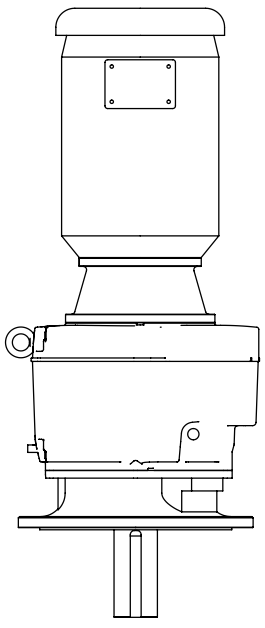
Output: Application exerts a 500lb thrust load on the gearmotor low speed shaft.

1. Service Factor from page 8 is 1.50.
2. Motor Horsepower is 10 hp.
3. The mixer shaft speed is 40 rpm so the ratio required is 1750 ÷ 40 = 43.75:1.
4. From Selection Guide on page 17, the appropriate gearmotor is the size 309UCFV3A45.-A8D, exact ratio 43.63:1, 1.58 service factor.
5. Check Thermal Rating — From page 31, the thermal hp rating is 32 hp. Since the ambient temperature is 86°F you must apply an ambient adjustment factor to determine the application adjusted thermal rating.

   Application adjusted thermal hp = 32 x .86=27.5 hp.

   The application adjusted hp rating of the gearmotor exceeds our motor hp requirements.
6. Check Overhung Load Capacity — for this example there is not overhung load applied.
7. Check External Thrust Load and Bending Moment Capacity — From page 26, the 309UCFV unit with an output speed of 40 rpm can accommodate a thrust load of 4360lbs. The allowed thrust load exceeds the application requirements.
8. Check Dimensions on page 23.
9. Specify complete model number including mounting position and motor mounting position (if mounted motor is requested) from page 11 — For this example 309UCFV3A45.-A8D104A.

Flange Mounted Gearmotor



UC — How to Select & Order Gear Drives

Before making any selections, refer to the Basic Information and Conditions Affecting Selections on Pages 3 and 4.

Selection of Gear Drives

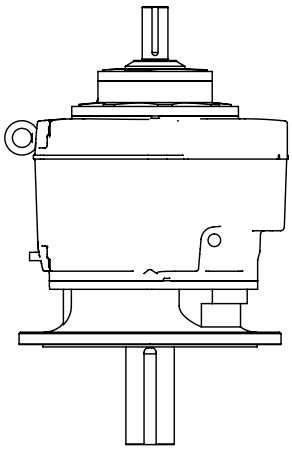
1. Determine Service Factor — pages 8 and 9.
2. Determine Equivalent Horsepower — Calculate the equivalent hp by multiplying the motor hp by the service factor.
3. Determine Gear Drive Output Speed and Ratio.
4. Gear Drive Selection tables are included on pages 27 through 30. Go to the page that contains selections based on your required input speed for the gear drive. For example, selections based upon an input speed of 1750 rpm are shown on page 27.

   Locate the table containing your required ratio, reduction and low speed shaft rpm & select the drive size with a mechanical rating equal to or greater than your equivalent horsepower requirement.

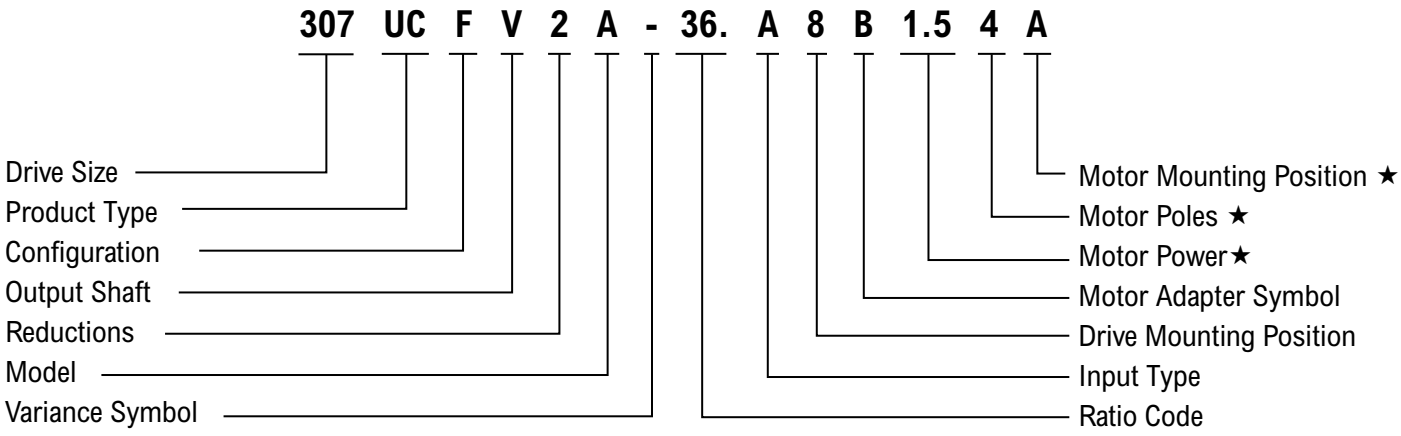
   Having selected a gear drive size meeting your ratio, reduction and equivalent horsepower requirements, build up the nomenclature using the guide on page 7, insuring that you include any required variances and your mounting position.
5. Check Thermal Rating — The application adjusted thermal rating must equal or exceed the actual power transmitted (2 hp). Ratings are based upon an ambient temperature of 68°F. If the actual ambient is different, an ambient adjustment factor must be applied. Basic thermal ratings and ambient adjustment factors are included on page 31.
6. Check Overhung Load — The gearmotor selection tables provide the low speed shaft overhung load capacity of the gearmotor selected. If overhung load is present, calculate the value of the overhung load per instructions of page 25.

   Sprockets or other devices mounted on the output shaft should be sized and positioned so the gearmotor overhung load capacities are not exceeded. Should the applied overhung loads exceed the capacity of the initial gearmotor selected, a larger gearmotor of adequate capacity must be selected.
7. Check External Thrust Load and Bending Moments — Permissible thrust loads are provided on page 26.
8. Check Gear Drive Dimensions — pages 32 and 33.
9. When ordering, provide the drive mounting position from page 11.

Flange Mounted Gear Drive



UC Mixer — Drive Nomenclature



Drive Sizes
307, 308, 309, 310, 313, 314 & 316

Product Type
UC — Concentric Helical

Configuration
F — Flange Mount
X — Flange Mount with Drywell✱

Output Shaft
V — Heavy Duty Bearings

Reductions
2 — Double
3 — Triple

Model
A, B, C, etc.

Variance Symbol
Variance Symbol is omitted when Standard Mineral Lube and Single Seals are specified
A — Standard Mineral Lube and Double Seals
B — Synthetic Lube and Single Seals
C — Biodegradeable lube and Single Seals
D — Food Compatible Lube and Single Seals
E — Synthetic Lube with Double Seals
F — Biodegradeable Compatible Lube with Double Seals
G — Food compatible Lube with Double Seals
H — Backstop (Hold Back)
S — Multiple Variances or Special

✱ Only available as vertical mount. Low speed shaft down. Sizes 310-316.

Ratio Code, Three Characters, Refer to Page 10
5.6 thru 56. Double Reduction
12. thru 224 Triple Reduction

Input Type
A — Motor Adapter to Allow Fitting of Std. NEMA Motor
N — Inline Adapter (inch)

Drive Mounting Position, Refer to Page 11
Mounting Position 7-9 for UCFV
Mounting Position 8 for UCXV

Motor Adapter Symbol, Refer to Page 12
B thru G

Motor Power, Decimal Point Shown ★
Horsepower — NEMA Motor

Motor Poles ★
2 — Poles, 3600 rpm @ 60 Hz, or 3000 rpm @ 50 Hz
4 — Poles, 1800 rpm @ 60 Hz, or 1500 rpm @ 50 Hz
6 — Poles, 1200 rpm @ 60 Hz, or 1000 rpm @ 50 Hz
8 — Poles, 900 rpm @ 60 Hz, or 750 rpm @ 50 Hz

Motor Mounting Position, Refer to Page 11 ★
When Viewed from L.S. Shaft of Base Mounted Drive with Mounting Feet Down
A — Conduit Box Horizontal on Right Side, 0°
B — Conduit Box Vertical on Bottom Side, 90°
C — Conduit Box Horizontal on Left Side, 180°
D — Conduit Box Vertical on Top Side of Drive 270°

★ Motor Power, Motor Poles and Motor Mounting Position are stamped on the nameplate only if the motor is furnished & fitted by the Factory.

Type UC Service Factors

A gear drive is rated to a specified application by the use of Service Factors. Each application has its own conditions and operating requirements. These have been analyzed and catalogued. Numerical values, based on field experience, have been assigned to these classifications for intermittent service of 3 to 10 hours per day and for service over 10 hours per day and also for the type of prime mover . . . electric motor or engine. Values for most applications are listed by Application on page 9,Table 3 and by Industry at right, Table 2.

Examples — A comparison of three different applications, each operating 16 hours per day, will illustrate the function of Service Factors: an Assembly Conveyor, uniformly loaded (SF = 1.25), a Belt Conveyor, heavy duty (SF = 1.50) and a Laundry Washer (SF = 2.00). If each of these applications requires 10 hp, each drive is selected for a rating of 10 hp times the Service Factor — that is, for 12.5, 15 and 20 hp respectively. Thus, the Service Factor takes into consideration the varying conditions of operation: Laundry Washer service is relatively more severe than that of a uniformly loaded Assembly Conveyor, etc.

Application	Service	
	3 to 10 Hours	Over 10 Hours
Assembly Conveyors		
Uniformly Loaded or Fed	1.25	1.25
Belt Conveyors		
Heavy Duty	125	1.50
Laundry Washer	1.50	2.00

Since most industrial applications are electric motor driven, Service Factors are based on the use of electric motors. These factors can be easily converted to engine-drive factors as outlined in Table 1.

Service Factors are based on the assumption that the system is free of dynamic vibrations, as explained in the warranty section, and that maximum momentary or starting loads do not exceed 200% of the rated load.

Service Factors listed are recommended as minimum for general purpose use. Application of these service factors will result in normal drive reliability and life under typical operation conditions. Refer to the Factory any application not listed in Tables 2 or 3.

Applications involving unusual operating conditions or requirements such as, but not limited to, the following should also be referred to the Factory:

- Applications requiring extended life/High reliability exceeding normal
- High frequency starting
- Stalling or other high energy load absorption
- Torsional vibrations
- Frequent speed variations
- Reversing loads
- Extremes in ambient temperature

Occasional & Intermittent Service or Engine Driven Applications

For multi-cylinder engine driven applications and all applications operating intermittently up to 3 hours per day, refer to Table 2 or 3 for the Service Factor of the same application operating 3 to 10 hours per day. Next, in the first column of Table 1, find this same Service Factor in bold face type. Then, to the right, under the desired hours service and prime mover, locate the converted Service Factor.

For example, from Table 3, the Service Factor is 1.25 for a uniformly loaded belt conveyor. From Table 1, for the same application the following are the Service Factors for various conditions.

1. Engine driven 3 to 10 hours per day; use 1.50 Service Factor.
2. Engine driven up to 3 hours intermittently; use 1.25 Service Factor.
3. Motor driven up to 3 hours intermittently; use 1.00 Service Factor.

Table 1 — Service Factor Conversions

Table 2 or 3 3 to 10 Hour Service Factor	3 to 10 Hours per Day	Over 10 Hours per Day		Intermittent - Up to 3 Hours per Day †	
	Multi-Cyl. Engine ‡	Motor	Multi-Cyl. Engine ‡	Motor	Multi-Cyl. Engine ‡
1.00	1.25	1.25	1.50	1.00	1.00
1.25	1.50	1.50	1.75	1.00	1.25
1.50	1.75	1.75	2.00	1.25	1.50
1.75	2.00	2.00	2.25	1.50	1.75
2.00	2.25	2.25	2.50	1.75	2.00

† For applications operating one half hour or less per day, and applications driven by single cylinder engine, refer to Factory.

‡ These service factors are based on the assumption that the system is free from serious critical and torsional vibrations, and that maximum momentary or starting loads do not exceed 200% of the normal load.

Table 2 — Type UC Service Factors Listed by Industry

For electric motor, steam turbine or hydraulic motor drives. . . recommendations are MINIMUM and normal conditions are assumed.

Industry	Service 3 to 10 Hour	Service Over 10 Hour
BOTTLING AND BREWING		
Bottling Machinery	1.25	1.25
Brew Kettles, Continuous Duty	1.25	1.25
Can Filling machines	1.25	1.25
Cookers—Continuous Duty	1.25	1.25
Mash Tubs—Continuous Duty	1.25	1.25
Scale Hoppers—Frequent Starts	1.25	1.50
CLAY WORKING INDUSTRY		
Clay Working Machinery	1.25	1.50
Pug Mills	1.25	1.50
DISTILLING	See Bottling	
FOOD INDUSTRY		
Beet Slicers	1.25	1.50
Bottling, Can Filling Machine	1.25	1.25
Cereal Cookers	1.25	1.25
Dough Mixers, Meat Grinders	1.25	1.50
LUMBER INDUSTRY		
Conveyors		
Burner	1.25	1.50
Main or Heavy Duty	1.50	1.50
Re-Saw Merry-Go-Round	1.25	1.50
Slab	1.75	2.00
Transfer	1.25	1.50
Chains—Floor	1.50	1.50
Chains—Green	1.50	1.75
Cut-Off Saws—Chain & Drag	1.50	1.75
Feeds—Edger	1.25	1.50
Feeds—Gang	1.75	1.75
Feeds—Trimmer	1.25	1.50
Log Turning Devices	1.75	1.75
Planer Feed	1.25	1.50
Planer Tilting Hoists	1.50	1.50
Rolls–Live–Off Bearing–Roll Cases	1.75	1.75
Sorting Table, Tipple Hoist	1.25	1.50
Transfers—Chain & Craneway	1.75	2.00
Tray Drives	1.25	1.50
Veneer Lathe Drives	Refer to Factory	
OIL INDUSTRY		
Chillers	1.25	1.50
Paraffin Filter Press	1.25	1.50
Rotary Kilns	1.25	1.50
PAPER MILLS ★		
Agitator (Mixer)	...	1.50
Agitator for Pure Liquids	...	1.50
Beater	...	1.50
Breaker Stack	...	1.50
♦Calender	...	1.50
Chipper	...	2.00
Chip Feeder	...	1.50
Coating Rolls	...	1.50
Conveyors—		
Chip, Bark, Chemical	...	1.50
Couch Rolls	...	1.50
Cylinder molds	...	1.50
♦Dryers —		
Paper Mach. & Conveyor Type	...	1.50
Embosser	...	1.50
Extruder	...	1.50
Fourdrinier Rolls—		
Lumpbreaker, Wire Turning Dandy & Return Rolls	...	1.50
Jordan	...	1.50
Kiln Drive	...	1.50
Mt. Hope & Paper Rolls	...	1.50
Platter	...	1.50
Presses (Felt & Suction)	...	1.50
Reel (Surface Type)	...	1.50
Screens		
Chip & Rotary	...	1.50
Size Press	...	1.50
Thickener & Washer		
AC Motor	...	1.50
DC Motor	...	1.50
Vacuum Pumps	...	1.50
Wind & Unwind Stand	...	1.25
Winders (Surface Type)	...	1.25
PLASTIC INDUSTRY		
Batch Drop Mill, 2 smooth rolls	1.25	1.25
Calenders	1.50	1.50
Compounding Mills	1.25	1.25
Continuous Feed, Holding & Blend Mill	1.25	1.25
Intensive Internal Mixers		
Batch Mixers	1.75	1.75
Continuous Mixers	1.50	1.50
RUBBER INDUSTRY		
Batch Drop Mill, 2 smooth rolls	1.50	1.50
Calenders	1.50	1.50
Cracker Warmer—2 roll. 1 corrugated roll	1.75	1.75
Holding, Feed & Blend Mill—2 Roll	1.25	1.25
Intensive Internal Mixers		
Batch Mixers	2.00	2.00
Continuous Mixers	1.50	1.50
Mixing Mill—2 smooth rolls (if corrugated rolls are used. use Cracker Warmer service factors)	1.50	1.50
Refiner—2 roll	1.50	1.50
SEWAGE DISPOSAL		
Bar Screens	1.25	1.25
Chemical Feeders	1.25	1.25
Collectors	1.25	1.25
Dewatering Screens	1.50	1.50
Scum Breakers	1.50	1.50
Slow or Rapid Mixers	1.50	1.50
Thickeners	1.50	1.50
Vacuum Filters	1.50	1.50
TEXTILE INDUSTRY		
Batchers, Calenders	1.25	1.50
Card Machines	1.25	1.50
Dry Cans, Dryers	1.25	1.50
Dyeing Machinery	1.25	1.50
Looms, Mangles, Nappers, Pads	1.25	1.50
Slashers, Soapers, Spinners, Tenter Frames, Washers, Winders	1.25	1.50

★ Service Factors for paper mill applications are applied to the nameplate rating of the electric drive motor at the motor rated base speed and are consistent with those shown in TAPPI standards.

♦ Anti-friction bearings only.

Table 3 — Type UC Service Factors listed by Application

Application	Service 3 to 10 Hour	Service Over 10 Hour
AGITATORS		
Pure Liquids	1.25	1.25
Liquids & Solids	1.25	1.50
Liquids-Variable Density	1.25	1.50
APRON CONVEYORS		
Uniformly Loaded or Fed	1.25	1.50
Heavy Duty	1.25	1.50
APRON FEEDERS	1.25	1.50
ASSEMBLY CONVEYORS		
Uniformly Loaded or Fed	1.25	1.25
Heavy Duty	1.25	1.50
BALL MILLS	See Mills. Rotary	
BAR SCREENS (Sewage)	1.25	1.25
BATCHERS (Textile)	1.25	1.50
BELT CONVEYORS		
Uniformly Loaded or Fed	1.25	1.25
Heavy Duty	1.25	1.50
BELT FEEDERS	1.25	1.50
BENDING ROLLS (Machine)	1.25	1.50
BLOWERS		
Centrifugal	1.25	1.25
Lobe	1.25	1.50
Vane	1.25	1.50
BOTTLING MACHINERY	1.25	1.25
BREWING	See Table 2	
BUCKET		
Conveyors Uniform	1.25	1.50
Conveyors Heavy Duty	1.25	1.50
Elevators Continuous	1.25	1.50
Elevators Uniform	1.25	1.50
Elevators Heavy Duty	1.25	1.50
CALENDERS		
Rubber and Plastic	See Table 2	
Textile	1.25	1.50
CAN FILLING MACHINES	1.25	1.25
CARD MACHINES (Textile)	1.25	1.50
CAR PULLERS	1.25	1.50
CEMENT KILNS	See Mills. Rotary	
CENTRIFUGAL		
Blowers, Compressors, Discharge Elevators, Fans or Pumps	1.25	1.25
CHAIN CONVEYORS		
Uniformly Loaded or Fed	1.25	1.25
Heavy Duty	1.25	1.50
CHEMICAL FEEDERS (Sewage)	1.25	1.25
CLARIFIERS	1.25	1.25
CLASSIFIERS	1.25	1.50
CLAY WORKING	See Table 2	
COLLECTORS (Sewage)	1.25	1.25
COMPRESSORS		
Centrifugal	1.25	1.25
Lobe	1.25	1.50
Reciprocating		
Multi-Cylinder	1.50	1.75
Single-Cylinder	1.75	2.00
CONCRETE MIXERS		
Continuous	1.25	1.50
Intermittent	1.25	1.50

Application	Service 3 to 10 Hour	Service Over 10 Hour
★CONVEYORS—Uniformly loaded or Fed:		
Apron, Assembly, Belt, Bucket, Chain, Flight, Oven, Screw	1.25	1.25
★CONVEYORS—Heavy Duty. Not Uniformly Fed		
Apron, Assembly, Belt, Bucket, Chain, Flight, Oven, Screw	1.25	1.50
COOKERS (Brewing & Distilling), (food)	1.25	1.25
DEWATERING SCREENS (Sewage)	1.50	1.50
DISC FEEDERS	1.25	1.25
DISTILLING	See Table 2	
DOUBLE ACTING PUMPS		
2 or more Cylinders	1.25	1.50
DOUGH MIXER (Food)	1.25	1.50
DRAW BENCH (Metal Mills)		
Carriage & Main Drive	1.25	1.50
DRYERS & COOLERS (Mills. Rotary)	...	1.50
DYEING MACHINERY (Textile)	1.25	1.50
ELEVATORS		
Bucket-Uniform Load	1.25	1.50
Bucket-Heavy Duty	1.25	1.50
Bucket-Continuous	1.25	1.50
Centrifugal Discharge	1.25	1.25
★Escalators	Not Approved	
★Freight	Not Approved	
Gravity Discharge	1.25	1.25
★Man Lifts, Passenger	Not Approved	
EXTRUDERS (Plastic & Rubber)	See Table 2	
FANS		
Centrifugal	1.25	1.25
Forced Draft	...	1.25
Induced Draft	1.50	1.50
Large (Mine, etc.)	1.50	1.50
Large Industrial	1.50	1.50
Light (Small Diameter)	1.00	1.25
FEEDERS		
Apron. Belt	1.25	1.50
Disc	1.25	1.25
Screw	1.25	1.50
FLIGHT CONVEYORS		
Uniform	1.25	1.25
Heavy	1.25	1.50
FOOD INDUSTRY	See Table 2	
GENERATORS (Not Welding)	1.25	1.25
GRAVITY DISCHARGE ELEVATORS	1.00	1.25

Application	Service 3 to 10 Hour	Service Over 10 Hour
★HOISTS		
Medium Duty	1.25	1.50
Skip Hoist	1.25	1.50
INDUCED DRAFT FANS	1.25	1.50
KILNS	See Mills. Rotary	
LAUNDRY WASHERS	1.50	2.00
LAUNDRY TUMBLERS	1.25	1.50
LINE SHAFTS		
Driving Processing Equipment	1.25	1.50
Other Line Shafts, Light	1.25	1.25
LOBE BLOWERS OR COMPRESSORS	1.25	1.50
LOOMS (Textile)	1.25	1.50
LUMBER INDUSTRY	See Table 2	
MACHINE TOOLS		
Auxiliary Drives	1.25	1.25
Bending Rolls	1.25	1.50
Main Drives	1.25	1.50
Punch Press (Geared)	1.75	2.00
Tapping machines	1.75	2.00
MANGLE (Textile)	1.25	1.50
MASH TUBS (Brewing & Distilling)	1.25	1.25
MEAT GRINDERS (Food)	1.25	1.50
METAL MILLS		
Draw Bench Carriages & Main Drives	1.25	1.50
Pinch, Dryer & Scrubber Rolls, Reversing	Refer to Factory	
Slitters	1.25	1.50
Table Conveyors. Non-Reversing Group Drives	1.50	1.50
Wire Drawing & Flattening Machines	1.25	1.50
Wire Winding Machines	1.50	1.50
MILLS. ROTARY		
Pebble, Plain & Wedge Bar Mills	...	1.50
MIXER (Also see Agitators)		
Concrete, Cont. & Int.	1.25	1.50
Constant Density	1.25	1.50
Variable Density	1.25	1.50
NAPPERS (Textile)	1.25	1.50
OIL INDUSTRY	See Table 2	
OVEN CONVEYORS		
Uniform	1.25	1.25
Heavy Duty	1.25	1.50
PAPER MILLS	See Table 2	
PASSENGER ELEVATORS	Not Approved	
PEBBLE MILLS	...	1.50
PROPORTIONING PUMPS	1.25	1.50
PUG MILLS (Clay)	1.25	1.50

Application	Service 3 to 10 Hour	Service Over 10 Hour
PUMPS		
Centrifugal	1.25	1.25
Proportioning	1.25	1.50
Reciprocating		
Single Act., 3 or more Cyl.	1.25	1.50
Double Act., 2 or more Cyl.	1.25	1.50
Rotary: Gear, Lobe, Vane	1.25	1.25
RECIPROCATING COMPRESSORS		
Multl-Cylinder	1.50	1.75
ROTARY		
Pumps	1.25	1.25
Screens (Sand or Gravel)	1.25	1.50
RUBBER & PLASTICS INDUSTRIES	See Table 2	
SAND MULLERS	1.25	1.50
SCREENS		
Air Washing	1.00	1.25
Rotary—Sand or Gravel	1.25	1.50
Traveling Water Intake	1.00	1.25
SCREW CONVEYORS		
Uniform	1.25	1.25
Heavy Duty or Feeder	1.25	1.50
SCUM BREAKERS (Sewage)	1.50	1.50
SEWAGE DISPOSAL	See Table 2	
SHAKER CONVEYORS	1.75	2.00
SHEETERS (Rubber)	...	1.50
SINGLE ACTING PUMP		
3 or more Cylinders	1.25	1.50
★SKI TOWS & LIFTS	Not Approved	
★SKIP HOIST	1.25	1.50
SLAB PUSHERS	1.50	1.50
SLITTERS (Metal)	1.25	1.50
SLUDGE COLLECTORS (Sewage)	1.25	1.25
SOAPERS (Textile)	1.25	1.50
SPINNERS (Textile)	1.25	1.50
STEERING GEARS	Refer to Factory	
STOKERS	1.25	1.25
TABLE CONVEYORS (Non-Reversing)		
Group Drives	1.50	1.50
TENTER FRAMES (Textile)	1.25	1.50
TEXTILE INDUSTRY	See Table 2	
THICKENERS (Sewage)	1.50	1.50
VACUUM FILTERS (Sewage)	1.50	1.50
VANE BLOWERS	1.25	1.50
WINCHES (Dredges)	1.25	1.50
WINDERS (Textile)	1.25	1.50
WIRE		
Drawing Machines	1.25	1.50
Winding Machines	1.50	1.50

★ Selection of Rexnord products for applications whose primary purpose is the transportation of people is not approved. This includes such applications as freight or passenger elevators. If the primary purpose of the application is material conveyance and occasionally people are transported, the Factory warranty may remain in effect provided the design load conditions are not exceeded and certification to the appropriate safety codes and load conditions has been obtained by the system designer or end user from the appropriate enforcement authorities.

Contact your local representative for proper selection of a Falk RAM mixer drive.

UC — Exact Ratio Values

Double Reduction

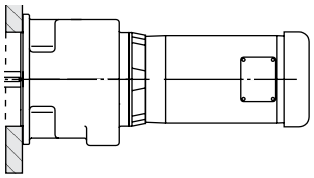
Ratio Code	Drive Size						
	307	308	309	310	313	314	316
5.6	5.48	5.40	5.45	5.54	5.64	. . .	. . .
6.3	6.36	6.05	6.28	6.60	6.38	. . .	. . .
7.1	7.12	6.97	7.09	7.09	7.24	. . .	. . .
8.0	8.15	7.90	7.83	8.19	7.89	. . .	. . .
9.0	8.94	8.88	8.89	9.16	9.00	. . .	. . .
10.	10.33	10.18	9.99	9.89	9.86	. . .	. . .
11.	11.41	11.24	11.10	11.14	11.35	. . .	. . .
12.	12.67	12.37	12.63	12.62	12.53	. . .	. . .
14.	13.57	13.93	13.64	13.76	14.08	. . .	. . .
16.	15.87	15.45	15.12	15.77	15.67	. . .	. . .
18.	17.09	17.70	17.40	18.28	17.56	. . .	. . .
20.	19.41	20.78	19.63	20.31	19.83	. . .	. . .
22.	21.98	22.24	22.35	21.69	22.31	. . .	. . .
25.	23.97	24.84	24.52	24.12	25.73	. . .	. . .
28.	27.74	28.34	28.11	27.36	28.13	. . .	. . .
32.	30.63	30.73	30.46	29.86	30.50	. . .	. . .
36.	36.65	35.47	35.94	34.18	36.01	. . .	. . .
40.	40.81	38.96	40.09	37.35	39.74	. . .	. . .
45.	45.14	46.48	44.58	44.00	44.23	. . .	. . .
50.	50.15	52.12	. . .	48.46	. . .	. . .	. . .
56.	. . .	. . .	. . .	53.82	. . .	. . .	. . .
63.	. . .	. . .	. . .	. . .	. . .	. . .	. . .

Triple Reduction

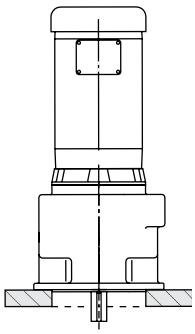
Ratio Code	Drive Size						
	307	308	309	310	313	314	316
12.	. . .	. . .	. . .	. . .	. . .	12.47	. . .
14.	. . .	. . .	. . .	. . .	. . .	14.11	. . .
16.	. . .	. . .	. . .	. . .	. . .	15.99	. . .
18.	. . .	. . .	. . .	. . .	. . .	18.14	. . .
20.	. . .	. . .	. . .	19.96	19.63	19.77	19.71
22.	. . .	. . .	. . .	22.15	22.22	22.55	22.31
25.	. . .	. . .	. . .	26.40	25.17	24.69	25.27
28.	. . .	26.62	27.03	28.35	28.56	28.43	28.68
32.	. . .	29.94	30.68	32.77	31.12	31.37	31.25
36.	. . .	34.34	34.48	36.65	35.50	35.25	35.65
40.	. . .	37.89	38.33	39.57	38.87	39.25	39.03
45.	. . .	41.69	43.63	44.56	44.76	43.98	44.95
50.	. . .	46.97	47.10	50.46	49.39	49.65	49.59
56.	. . .	52.10	52.21	55.03	55.50	55.87	55.73
63.	. . .	59.67	60.09	63.10	61.80	64.45	62.05
71.	. . .	70.07	67.77	73.11	69.24	70.44	69.52
80.	. . .	74.99	77.16	81.23	78.17	76.38	78.49
90.	. . .	83.75	84.66	86.77	87.97	90.17	88.33
100	. . .	95.56	97.06	96.46	101.47	99.53	101.88
112	. . .	103.60	105.20	109.44	110.90	110.75	111.36
125	. . .	119.60	124.10	119.46	120.26	. . .	120.75
140	. . .	131.30	138.40	136.74	141.97	. . .	142.55
160	. . .	158.20	154.00	149.41	156.70	. . .	157.34
180	. . .	175.70	. . .	176.00	174.37	. . .	175.09
200	. . .	. . .	. . .	193.85	. . .	. . .	. . .
224	. . .	. . .	. . .	215.26	. . .	. . .	. . .

UC — Drive Mounting Position

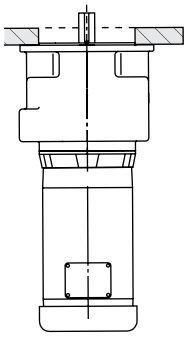
Mounting 7



Mounting 8



Mounting 9 ‡



‡ Use motor fitted with a seal.

UC – Motor Mounting Position

Conduit box position when viewed from L.S. shaft of base mounted drive with mounting feet down.

A — Conduit box horizontal on right side, 0°.

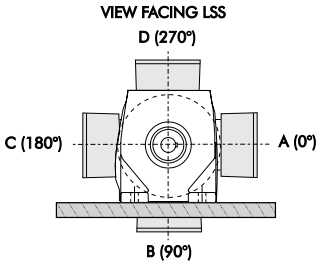
B — Conduit box vertical on bottom side, 90°.

C — conduit box horizontal on left side, 180°.

D — Conduit box vertical on top side, 270°.

Standard NEMA motor mounting position is “C”.

Standard IEC motor mounting position is “A”.



UC — Motor Adapter Symbols

The ULTRAMITE concentric gearmotor accommodates NEMA (Input Type “A”) or IEC (Input Type “G”) motor frame sizes.

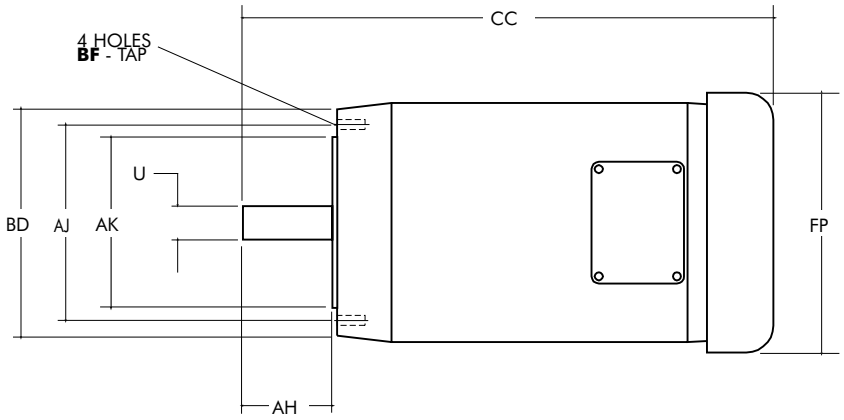
Table 4 below identifies the appropriate motor adapter symbol that pertains to specific motor frame size, drive size, ratio, and reduction combinations. If a motor adapter symbol is not listed for a particular combination of motor frame size, drive size, ratio, and reduction, then that combination is not offered.

For Gear Drives (Inputs Types “N” and “C”), the motor adapter symbol is not used.

Table 4 — Input Type A – NEMA Motor Adapter Symbols

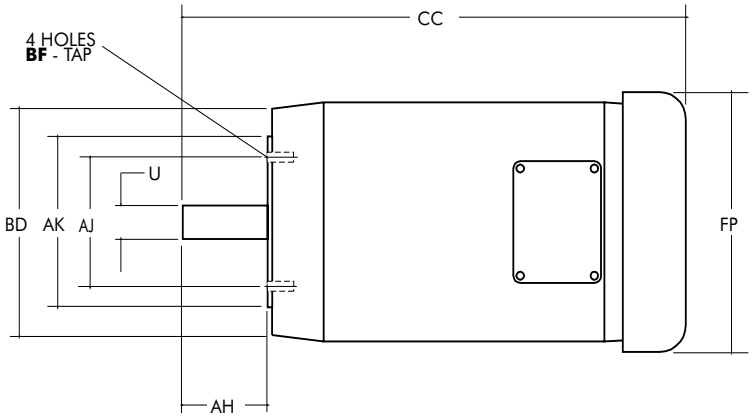
Motor Frame Size	Drive Size						
	307	308	309	310	313	314	316
143TC/145TC	B	B	B	. . .	. . .	. . .	. . .
182TC/184TC	C	C	C	C	. . .	. . .	. . .
213TC/215TC	D	D	D	D	D	D	D
254TC/256TC	E	E	E	E	E	E	E
284TC/286TC	. . .	F	F	F	F	F	F
324TC/326TC	. . .	G	G	G	G	G	G

Motor Detail (NEMA C-Face)



Typical Motor Dimensions – Inches

Motor Frame Size	BD	AJ	AK	U	AH	CC Max	FP	BF Tap UNC
56C	6.50	5.88	4.5	0.625	2.06	11.38	7.19	0.375-16
142TC/145TC	6.50	5.88	4.5	0.875	2.12	14.19	7.19	0.375-16



Typical Motor Dimensions – Inches

Motor Frame Size	BD	AJ	AK	U	AH	CC Max	FP	BF Tap UNC
182TC/184TC	9.00	7.25	8.5	1.125	2.63	18.06	8.50	0.50-13
213TC/215TC	9.00	7.25	8.5	1.375	3.13	19.44	10.19	0.50-13
254TC/256TC	10.00	7.25	8.5	1.625	3.75	23.63	12.50	0.50-13
284TC/286TC	11.25	9.00	10.5	1.875	4.38	27.56	15.56	0.50-13
324TC/326TC	13.38	11.00	12.5	2.125	5.00	30.25	16.94	0.63-11
364TC/365TC	13.38	11.00	12.5	2.375	5.63	32.56	19.00	0.63-11
404TC/405TC	13.88	11.00	12.5	2.875	7.00	36.88	20.63	0.63-11

UCFV/UCXV — Gearmotor Selection Table

1.5 HP/1750 rpm/145TC Frame

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
47.7	36.65	6372	3.22	2312	307UCFV2A-36.A8B	. . .
42.9	40.81	6372	2.89	2312	307UCFV2A-40.A8B	. . .
38.8	45.14	6372	2.61	2312	307UCFV2A-45.A8B	. . .
34.9	50.15	6372	2.35	2312	307UCFV2A-50.A8B	. . .
23.3	74.99	14160	3.50	3661	308UCFV3A-80.A8B	. . .
20.9	83.75	14160	3.13	4047	308UCFV3A-90.A8B	. . .
18.3	95.56	14160	2.74	4047	308UCFV3A-100A8B	. . .
16.9	103.60	14160	2.53	4047	308UCFV3A-112A8B	. . .
14.6	119.59	14160	2.19	4047	308UCFV3A-125A8B	. . .
14.1	124.11	24780	3.70	4914	309UCFV3A-125A8B	. . .
131.3	131.30	14160	2.00	4047	308UCFV3A-140A8B	. . .
130.2	138.40	24780	3.31	4914	309UCFV3A-140A8B	. . .
111.3	158.20	14160	1.66	4047	308UCFV3A-160A8B	. . .
109.6	154.00	24780	2.98	4914	309UCFV3A-160A8B	. . .
98.8	175.70	14160	1.49	4047	308UCFV3A-180A8B	. . .

UCFV/UCXV — Gearmotor Selection Table

2 HP/1750 rpm/145TC Frame

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
73.0	23.97	6372	3.69	2312	307UCFV2A-25.A8B	. . .
42.9	40.81	6372	2.17	2312	307UCFV2A-40.A8B	. . .
38.8	45.14	6372	1.96	2312	307UCFV2A-45.A8B	. . .
37.7	46.48	12390	3.70	3468	308UCFV2A-45.A8B	. . .
34.9	50.15	6372	1.76	2312	307UCFV2A-50.A8B	. . .
33.6	52.12	12390	3.30	3661	308UCFV2A-50.A8B	. . .
33.6	52.10	14160	3.77	3372	308UCFV3A-56.A8B	. . .
29.3	59.67	14160	3.29	3372	308UCFV3A-63.A8B	. . .
25.0	70.07	14160	2.81	3468	308UCFV3A-71.A8B	. . .
23.3	74.99	14160	2.62	3661	308UCFV3A-80.A8B	. . .
18.3	95.56	14160	2.06	4047	308UCFV3A-100A8B	. . .
18.0	97.06	24780	3.54	4914	309UCFV3A-100A8B	. . .
16.9	103.60	14160	1.90	4047	308UCFV3A-112A8B	. . .
16.6	105.19	24780	3.27	4914	309UCFV3A-112A8B	. . .
14.6	119.59	14160	1.64	4047	308UCFV3A-125A8B	. . .
14.1	124.11	24780	2.77	4914	309UCFV3A-125A8B	. . .
13.3	131.33	14160	1.50	4047	308UCFV3A-140A8B	. . .
12.6	138.44	24780	2.49	4914	309UCFV3A-140A8B	. . .
11.2	156.72	14160	1.24	4047	308UCFV3A-160A8B	. . .
11.4	153.96	24780	2.23	4914	309UCFV3A-160A8B	. . .
10.0	175.71	14160	1.12	4047	308UCFV3A-180A8B	. . .

UCFV/UCXV — Gearmotor Selection Table

3 HP/1750 rpm/182TC Frame

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
102.4	17.09	6372	3.45	2023	307UCFV2A-18.A8C	. . .
90.2	19.41	6372	3.04	2120	307UCFV2A-20.A8C	. . .
79.6	21.98	6372	2.68	2312	307UCFV2A-22.A8C	. . .
73.0	23.97	6372	2.46	2312	307UCFV2A-25.A8C	. . .
63.1	27.74	6372	2.13	2312	307UCFV2A-28.A8C	. . .
57.1	30.63	6372	1.93	2312	307UCFV2A-32.A8C	. . .
47.7	36.65	6372	1.61	2312	307UCFV2A-36.A8C	. . .
49.3	35.47	12390	3.23	3083	308UCFV2A-36.A8C	. . .
42.9	40.81	6372	1.45	2312	307UCFV2A-40.A8C	. . .
44.9	38.96	12390	2.94	3276	308UCFV2A-40.A8C	. . .
46.2	37.89	14160	3.46	3083	308UCFV3A-40.A8C	. . .
38.8	45.14	6372	1.31	2312	307UCFV2A-45.A8C	. . .
37.7	46.48	12390	2.47	3468	308UCFV2A-45.A8C	. . .
42.0	41.69	14160	3.14	3372	308UCFV3A-45.A8C	. . .
34.9	50.15	6372	1.18	2312	307UCFV2A-50.A8C	. . .
33.6	52.12	12390	2.20	3661	308UCFV2A-50.A8C	. . .
37.3	46.97	14160	2.79	3372	308UCFV3A-50.A8C	. . .
33.6	52.10	14160	2.52	3372	308UCFV3A-56.A8C	. . .
27.7	63.17	7257	1.06	2120	307UCFV3A-63.A8C	. . .
29.3	59.67	14160	2.20	3372	308UCFV3A-63.A8C	. . .
25.0	70.07	14160	1.87	3468	308UCFV3A-71.A8C	. . .
25.8	67.77	24780	3.38	4528	309UCFV3A-71.A8C	. . .
23.3	74.99	14160	1.75	3661	308UCFV3A-80.A8C	. . .
22.7	77.16	24780	2.97	4625	309UCFV3A-80.A8C	. . .
18.3	95.56	14160	1.37	4047	308UCFV3A-100A8C	. . .
18.0	97.06	24780	2.36	4914	309UCFV3A-100A8C	. . .
16.9	103.60	14160	1.27	4047	308UCFV3A-112A8C	. . .
16.6	105.19	24780	2.18	4914	309UCFV3A-112A8C	. . .
14.6	119.59	14160	1.10	4047	308UCFV3A-125A8C	. . .
14.1	124.11	24780	1.85	4914	309UCFV3A-125A8C	. . .
14.6	119.46	44250	3.43	7322	310UCFV3A-125A8C	310UCXV3A-125A8C
13.3	131.33	14160	1.00	4047	308UCFV3A-140A8C	. . .
12.6	138.44	24780	1.66	4914	309UCFV3A-140A8C	. . .
12.8	136.74	44250	3.00	7322	310UCFV3A-140A8C	310UCXV3A-140A8C
11.4	153.96	24780	1.49	4914	309UCFV3A-160A8C	. . .
11.7	149.41	44250	2.74	7322	310UCFV3A-160A8C	310UCXV3A-160A8C
9.9	176.00	44250	2.33	7322	310UCFV3A-180A8C	310UCXV3A-180A8C
9.0	193.85	44250	2.11	7322	310UCFV3A-200A8C	310UCXV3A-200A8C
8.1	215.26	44250	1.90	7322	310UCFV3A-224A8C	310UCXV3A-224A8C

UCFV/UCXV — Gearmotor Selection Table

5 HP/1750 rpm/184TC Frame

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
195.7	8.94	5708	3.55	1542	307UCFV2A-9.0A8C	. . .
169.4	10.33	6018	3.24	1638	307UCFV2A-10.A8C	. . .
153.4	11.41	6372	3.10	1638	307UCFV2A-11.A8C	. . .
138.1	12.67	6372	2.79	1734	307UCFV2A-12.A8C	. . .
129.0	13.57	6372	2.61	1831	307UCFV2A-14.A8C	. . .
110.3	15.87	6372	2.23	1927	307UCFV2A-16.A8C	. . .
102.4	17.09	6372	2.07	2023	307UCFV2A-18.A8C	. . .
98.9	17.70	12390	3.89	2312	308UCFV2A-18.A8C	. . .
90.2	19.41	6372	1.82	2120	307UCFV2A-20.A8C	. . .
84.2	20.78	12390	3.31	2409	308UCFV2A-20.A8C	. . .
79.6	21.98	6372	1.61	2312	307UCFV2A-22.A8C	. . .
78.7	22.24	12390	3.09	2505	308UCFV2A-22.A8C	. . .
73.0	23.97	6372	1.48	2312	307UCFV2A-25.A8C	. . .
70.5	24.84	12390	2.77	2698	308UCFV2A-25.A8C	. . .
63.1	27.74	6372	1.28	2312	307UCFV2A-28.A8C	. . .
61.8	28.34	12390	2.43	2794	308UCFV2A-28.A8C	. . .
65.7	26.62	13275	2.77	2698	308UCFV3A-28.A8C	. . .
57.1	30.63	2567	4.41	1308	307UCFV2A-32.A8C	. . .
44.9	38.96	12390	1.77	3276	308UCFV2A-40.A8C	. . .
46.2	37.89	14160	2.08	3083	308UCFV3A-40.A8C	. . .
43.7	40.09	21240	2.94	4047	309UCFV2A-40.A8C	. . .
45.7	38.33	24780	3.59	3758	309UCFV3A-40.A8C	. . .
37.7	46.48	12390	1.48	3468	308UCFV2A-45.A8C	. . .
42.0	41.69	14160	1.89	3372	308UCFV3A-45.A8C	. . .
39.3	44.58	21240	2.65	4239	309UCFV2A-45.A8C	. . .
40.1	43.63	24780	3.15	4047	309UCFV3A-45.A8C	. . .
33.6	52.12	12390	1.32	3661	308UCFV2A-50.A8C	. . .
37.3	46.97	14160	1.67	3372	308UCFV3A-50.A8C	. . .
37.2	47.10	24780	2.92	4239	309UCFV3A-50.A8C	. . .
33.6	52.10	14160	1.51	3372	308UCFV3A-56.A8C	. . .
33.5	52.21	24780	2.64	4239	309UCFV3A-56.A8C	. . .
32.5	53.82	32745	3.38	7322	310UCFV2A-56.A8C	310UCXV2A-56.A8C
29.3	59.67	14160	1.32	3372	308UCFV3A-63.A8C	. . .
29.1	60.09	24780	2.29	4336	309UCFV3A-63.A8C	. . .
27.7	63.10	44250	3.89	7033	310UCFV3A-63.A8C	310UCXV3A-63.A8C
25.0	70.07	14160	1.12	3468	308UCFV3A-71.A8C	. . .
25.8	67.77	24780	2.03	4528	309UCFV3A-71.A8C	. . .
23.9	73.11	44250	3.36	7322	310UCFV3A-71.A8C	310UCXV3A-71.A8C
22.7	77.16	24780	1.78	4625	309UCFV3A-80.A8C	. . .
21.5	81.23	44250	3.03	7322	310UCFV3A-80.A8C	310UCXV3A-80.A8C
20.7	84.66	24780	1.63	4914	309UCFV3A-90.A8C	. . .
20.2	86.77	44250	2.83	7322	310UCFV3A-90.A8C	310UCXV3A-90.A8C
18.0	97.06	24780	1.42	4914	309UCFV3A-100A8C	. . .
18.1	96.46	44250	2.55	7322	310UCFV3A-100A8C	310UCXV3A-100A8C
16.6	105.19	24780	1.31	4914	309UCFV3A-112A8C	. . .
16.0	109.44	44250	2.25	7322	310UCFV3A-112A8C	310UCXV3A-112A8C
15.8	110.90	79650	3.99	10116	313UCFV3A-112A8C	313UCXV3A-112A8C
14.1	124.11	24780	1.11	4914	309UCFV3A-125A8C	. . .
14.6	119.46	44250	2.06	7322	310UCFV3A-125A8C	310UCXV3A-125A8C
14.6	120.26	79650	3.68	10116	313UCFV3A-125A8C	313UCXV3A-125A8C
12.8	136.74	44250	1.80	7322	310UCFV3A-140A8C	310UCXV3A-140A8C
12.3	141.97	79650	3.12	10116	313UCFV3A-140A8C	313UCXV3A-140A8C
11.7	149.41	44250	1.64	7322	310UCFV3A-160A8C	310UCXV3A-160A8C
11.2	156.70	79650	2.82	10116	313UCFV3A-160A8C	313UCXV3A-160A8C
9.9	176.00	44250	1.40	7322	310UCFV3A-180A8C	310UCXV3A-180A8C
10.0	174.37	79650	2.54	10116	313UCFV3A-180A8C	313UCXV3A-180A8C
9.0	193.85	44250	1.27	7322	310UCFV3A-200A8C	310UCXV3A-200A8C
8.1	215.26	44250	1.14	7322	310UCFV3A-224A8C	310UCXV3A-224A8C

UCFV/UCXV — Gearmotor Selection Table

7.5 HP/1750 rpm/213TC Frame

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
319.3	5.48	4602	3.11	1349	307UCFV2A-5.6A8D	. . .
275.2	6.36	4868	2.83	1349	307UCFV2A-6.3A8D	. . .
245.8	7.12	5133	2.67	1445	307UCFV2A-7.1A8D	. . .
214.7	8.15	5399	2.45	1445	307UCFV2A-8.0A8D	. . .
195.7	8.94	5708	2.36	1542	307UCFV2A-9.0A8D	. . .
169.4	10.33	6018	2.16	1638	307UCFV2A-10.A8D	. . .
153.4	11.41	6372	2.07	1638	307UCFV2A-11.A8D	. . .
138.1	12.67	6372	1.86	1734	307UCFV2A-12.A8D	. . .
141.5	12.37	11505	3.44	2023	308UCFV2A-12.A8D	. . .
129.0	13.57	6372	1.74	1831	307UCFV2A-14.A8D	. . .
125.6	13.93	12390	3.29	2023	308UCFV2A-14.A8D	. . .
110.3	15.87	6372	1.49	1927	307UCFV2A-16.A8D	. . .
113.3	15.45	12390	2.97	2120	308UCFV2A-16.A8D	. . .
102.4	17.09	6372	1.38	2023	307UCFV2A-18.A8D	. . .
98.9	17.70	12390	2.59	2312	308UCFV2A-18.A8D	. . .
90.2	19.41	6372	1.22	2120	307UCFV2A-20.A8D	. . .
84.2	20.78	12390	2.21	2409	308UCFV2A-20.A8D	. . .
79.6	21.98	6372	1.07	2312	307UCFV2A-22.A8D	. . .
78.7	22.24	12390	2.06	2505	308UCFV2A-22.A8D	. . .
78.3	22.35	21240	3.52	3083	309UCFV2A-22.A8D	. . .
73.0	23.97	6372	0.98	2312	307UCFV2A-25.A8D	. . .
70.5	24.84	12390	1.85	2698	308UCFV2A-25.A8D	. . .
71.4	24.52	21240	3.21	3276	309UCFV2A-25.A8D	. . .
61.8	28.34	12390	1.62	2794	308UCFV2A-28.A8D	. . .
62.3	28.11	21240	2.80	3468	309UCFV2A-28.A8D	. . .
64.7	27.03	22125	3.03	3372	309UCFV3A-28.A8D	. . .
56.9	30.73	12390	1.49	2890	308UCFV2A-32.A8D	. . .
58.5	29.94	14160	1.75	2794	308UCFV3A-32.A8D	. . .
57.5	30.46	21240	2.58	3565	309UCFV2A-32.A8D	. . .
49.3	35.47	12390	1.29	3083	308UCFV2A-36.A8D	. . .
51.0	34.34	14160	1.53	2987	308UCFV3A-36.A8D	. . .
48.7	35.94	21240	2.19	3854	309UCFV2A-36.A8D	. . .
50.8	34.48	24780	2.66	3565	309UCFV3A-36.A8D	. . .
44.9	38.96	12390	1.18	3276	308UCFV2A-40.A8D	. . .
46.2	37.89	14160	1.38	3083	308UCFV3A-40.A8D	. . .
43.7	40.09	21240	1.96	4047	309UCFV2A-40.A8D	. . .

(continued)

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
45.7	38.33	24780	2.39	3758	309UCFV3A-40.A8D	. . .
46.9	37.35	36285	3.60	6359	310UCFV2A-40.A8D	. . .
37.7	46.48	12390	0.99	3468	308UCFV2A-45.A8D	. . .
42.0	41.69	14160	1.26	3372	308UCFV3A-45.A8D	. . .
39.3	44.58	21240	1.76	4239	309UCFV2A-45.A8D	. . .
40.1	43.63	24780	2.10	4047	309UCFV3A-45.A8D	. . .
39.8	44.00	36285	3.05	6937	310UCFV2A-45.A8D	310UCXV2A-45.A8D
37.3	46.97	14160	1.12	3372	308UCFV3A-50.A8D	. . .
37.2	47.10	24780	1.95	4239	309UCFV3A-50.A8D	. . .
36.1	48.46	35400	2.70	7322	310UCFV2A-50.A8D	310UCXV2A-50.A8D
34.7	50.46	44250	3.25	6166	310UCFV3A-50.A8D	310UCXV3A-50.A8D
33.6	52.10	14160	1.01	3372	308UCFV3A-56.A8D	. . .
33.5	52.21	24780	1.76	4239	309UCFV3A-56.A8D	. . .
32.5	53.82	32745	2.25	7322	310UCFV2A-56.A8D	310UCXV2A-56.A8D
31.8	55.03	44250	2.98	6552	310UCFV3A-56.A8D	310UCXV3A-56.A8D
79.5	22.00	24780	1.53	4336	309UCFV3A-63.A8D	. . .
27.7	63.10	44250	2.60	7033	310UCFV3A-63.A8D	310UCXV3A-63.A8D
25.8	67.77	24780	1.35	4528	309UCFV3A-71.A8D	. . .
23.9	73.11	44250	2.24	7322	310UCFV3A-71.A8D	310UCXV3A-71.A8D
22.7	77.16	24780	1.19	4625	309UCFV3A-80.A8D	. . .
21.5	81.23	44250	2.02	7322	310UCFV3A-80.A8D	310UCXV3A-80.A8D
20.7	84.66	24780	1.08	4914	309UCFV3A-90.A8D	. . .
20.2	86.77	44250	1.89	7322	310UCFV3A-90.A8D	310UCXV3A-90.A8D
19.9	87.97	79650	3.35	10116	313UCFV3A-90.A8D	313UCXV3A-90.A8D
18.1	96.46	44250	1.70	7322	310UCFV3A-100A8D	310UCXV3A-100A8D
17.2	101.47	79650	2.91	10116	313UCFV3A-100A8D	313UCXV3A-100A8D
16.0	109.44	44250	1.50	7322	310UCFV3A-112A8D	310UCXV3A-112A8D
15.8	110.90	79650	2.66	10116	313UCFV3A-112A8D	313UCXV3A-112A8D
14.6	119.46	44250	1.37	7322	310UCFV3A-125A8D	310UCXV3A-125A8D
14.6	120.26	79650	2.45	10116	313UCFV3A-125A8D	313UCXV3A-125A8D
12.8	136.74	44250	1.20	7322	310UCFV3A-140A8D	310UCXV3A-140A8D
12.3	141.97	79650	2.08	10116	313UCFV3A-140A8D	313UCXV3A-140A8D
11.7	149.41	44250	1.10	7322	310UCFV3A-160A8D	310UCXV3A-160A8D
11.2	156.70	79650	1.88	10116	313UCFV3A-160A8D	313UCXV3A-160A8D
10.0	174.37	79650	1.69	10116	313UCFV3A-180A8D	313UCXV3A-180A8D

UCFV/UCXV — Gearmotor Selection Table

10 HP/1750 rpm/215TC Frame

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
319.3	5.48	4602	2.33	1349	307UCFV2A-5.6A8D	. . .
275.2	6.36	4868	2.13	1349	307UCFV2A-6.3A8D	. . .
289.3	6.05	8054	3.70	1734	308UCFV2A-6.3A8D	. . .
245.8	7.12	5133	2.00	1445	307UCFV2A-7.1A8D	. . .
251.1	6.97	8673	3.46	1734	308UCFV2A-7.1A8D	. . .
214.7	8.15	5399	1.84	1445	307UCFV2A-8.0A8D	. . .
221.5	7.90	9293	3.27	1734	308UCFV2A-8.0A8D	. . .
195.7	8.94	5708	1.77	1542	307UCFV2A-9.0A8D	. . .
197.1	8.88	10001	3.13	1831	308UCFV2A-9.0A8D	. . .
169.4	10.33	6018	1.62	1638	307UCFV2A-10.A8D	. . .
171.9	10.18	10709	2.92	1831	308UCFV2A-10.A8D	. . .
153.4	11.41	6372	1.55	1638	307UCFV2A-11.A8D	. . .
155.7	11.24	11505	2.84	1927	308UCFV2A-11.A8D	. . .
138.1	12.67	6372	1.40	1734	307UCFV2A-12.A8D	. . .
141.5	12.37	11505	2.58	2023	308UCFV2A-12.A8D	. . .
129.0	13.57	6372	1.30	1831	307UCFV2A-14.A8D	. . .
125.6	13.93	12390	2.47	2023	308UCFV2A-14.A8D	. . .
110.3	15.87	6372	1.11	1927	307UCFV2A-16.A8D	. . .
113.3	15.45	12390	2.23	2120	308UCFV2A-16.A8D	. . .
102.4	17.09	6372	1.04	2023	307UCFV2A-18.A8D	. . .
98.9	17.70	12390	1.94	2312	308UCFV2A-18.A8D	. . .
100.6	17.40	21240	3.39	2794	309UCFV2A-18.A8D	. . .
84.2	20.78	12390	1.66	2409	308UCFV2A-20.A8D	. . .
89.1	19.63	21240	3.00	2890	309UCFV2A-20.A8D	. . .
78.7	22.24	12390	1.55	2505	308UCFV2A-22.A8D	. . .
78.3	22.35	21240	2.64	3083	309UCFV2A-22.A8D	. . .
70.5	24.84	12390	1.38	2698	308UCFV2A-25.A8D	. . .
71.4	24.52	21240	2.41	3276	309UCFV2A-25.A8D	. . .
61.8	28.34	12390	1.21	2794	308UCFV2A-28.A8D	. . .
62.3	28.11	21240	2.10	3468	309UCFV2A-28.A8D	. . .
64.7	27.03	22125	2.27	3372	309UCFV3A-28.A8D	. . .
64.0	27.36	36285	3.68	5299	310UCFV2A-28.A8D	310UCXV2A-28.A8D
56.9	30.73	12390	1.12	2890	308UCFV2A-32.A8D	. . .
58.5	29.94	14160	1.31	2794	308UCFV3A-32.A8D	. . .
57.5	30.46	21240	1.94	3565	309UCFV2A-32.A8D	. . .
58.6	29.86	36285	3.37	5684	310UCFV2A-32.A8D	310UCXV2A-32.A8D
53.4	32.77	44250	3.75	4721	310UCFV3A-32.A8D	310UCXV3A-32.A8D
49.3	35.47	12390	0.97	3083	308UCFV2A-36.A8D	. . .
51.0	34.34	14160	1.14	2987	308UCFV3A-36.A8D	. . .
48.7	35.94	21240	1.64	3854	309UCFV2A-36.A8D	. . .

(continued)

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
50.8	34.48	24780	2.00	3565	309UCFV3A-36.A8D	. . .
51.2	34.18	36285	2.95	6166	310UCFV2A-36.A8D	310UCXV2A-36.A8D
47.7	36.65	44250	3.35	5106	310UCFV3A-36.A8D	310UCXV3A-36.A8D
46.2	37.89	14160	1.04	3083	308UCFV3A-40.A8D	. . .
43.7	40.09	21240	1.47	4047	309UCFV2A-40.A8D	. . .
45.7	38.33	24780	1.80	3758	309UCFV3A-40.A8D	. . .
46.9	37.35	36285	2.70	6359	310UCFV2A-40.A8D	310UCXV2A-40.A8D
44.2	39.57	44250	3.11	5395	310UCFV3A-40.A8D	310UCXV3A-40.A8D
39.3	44.58	21240	1.32	4239	309UCFV2A-45.A8D	. . .
40.1	43.63	24780	1.58	4047	309UCFV3A-45.A8D	. . .
39.8	44.00	36285	2.29	6937	310UCFV2A-45.A8D	310UCXV2A-45.A8D
39.3	44.58	44250	2.76	5973	310UCFV3A-45.A8D	310UCXV3A-45.A8D
37.2	47.10	24780	1.46	4239	309UCFV3A-50.A8D	. . .
36.1	48.46	35400	2.03	7322	310UCFV2A-50.A8D	310UCXV2A-50.A8D
34.7	50.46	44250	2.43	6166	310UCFV3A-50.A8D	310UCXV3A-50.A8D
33.5	52.21	24780	1.32	4239	309UCFV3A-56.A8D	. . .
32.5	53.82	32745	1.69	7322	310UCFV2A-56.A8D	310UCXV2A-56.A8D
31.8	55.03	44250	2.23	6552	310UCFV3A-56.A8D	310UCXV3A-56.A8D
29.1	60.09	24780	1.15	4336	309UCFV3A-63.A8D	. . .
27.7	63.10	44250	1.95	7033	310UCFV3A-63.A8D	310UCXV3A-63.A8D
28.3	61.80	79650	3.58	10116	313UCFV3A-63.A8D	313UCXV3A-63.A8D
25.8	67.77	24780	1.02	4528	309UCFV3A-71.A8D	. . .
23.9	73.11	44250	1.68	7322	310UCFV3A-71.A8D	310UCXV3A-71.A8D
25.3	69.24	79650	3.19	10116	313UCFV3A-71.A8D	313UCXV3A-71.A8D
21.5	81.23	44250	1.51	7322	310UCFV3A-80.A8D	310UCXV3A-80.A8D
22.4	78.17	79650	2.83	10116	313UCFV3A-80.A8D	313UCXV3A-80.A8D
20.2	86.77	44250	1.42	7322	310UCFV3A-90.A8D	310UCXV3A-90.A8D
19.9	87.97	79650	2.51	10116	313UCFV3A-90.A8D	313UCXV3A-90.A8D
18.1	96.46	44250	1.27	7322	310UCFV3A-100A8D	310UCXV3A-100A8D
167.1	10.47	79650	2.18	10116	313UCFV3A-100A8D	313UCXV3A-100A8D
17.6	99.53	132751	3.70	15801	314UCFV3A-100A8D	314UCXV3A-100A8D
16.0	109.44	44250	1.12	7322	310UCFV3A-112A8D	310UCXV3A-112A8D
15.8	110.90	79650	1.99	10116	313UCFV3A-112A8D	313UCXV3A-112A8D
15.8	110.75	132751	3.33	15801	314UCFV3A-112A8D	314UCXV3A-112A8D
14.6	119.46	44250	1.03	7322	310UCFV3A-125A8D	310UCXV3A-125A8D
14.6	120.26	79650	1.84	10116	313UCFV3A-125A8D	313UCXV3A-125A8D
12.3	141.97	79650	1.56	10116	313UCFV3A-140A8D	313UCXV3A-140A8D
11.2	156.70	79650	1.41	10116	313UCFV3A-160A8D	313UCXV3A-160A8D
10.0	174.37	79650	1.27	10116	313UCFV3A-180A8D	313UCXV3A-180A8D
10.0	175.09	221251	3.51	20233	316UCFV3A-180A8D	316UCXV3A-180A8D

UCFV/UCXV — Gearmotor Selection Table

15 HP/1750 rpm/254TC Frame

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
319.3	5.48	4602	1.55	1349	307UCFV2A-5.6A8E	. . .
324.1	5.40	7523	2.58	1734	308UCFV2A-5.6A8E	. . .
275.2	6.36	4868	1.42	1349	307UCFV2A-6.3A8E	. . .
289.3	6.05	8054	2.46	1734	308UCFV2A-6.3A8E	. . .
245.8	7.12	5133	1.33	1445	307UCFV2A-7.1A8E	. . .
251.1	6.97	8673	2.30	1734	308UCFV2A-7.1A8E	. . .
214.7	8.15	5399	1.23	1445	307UCFV2A-8.0A8E	. . .
221.5	7.90	9293	2.18	1734	308UCFV2A-8.0A8E	. . .
195.7	8.94	5708	1.18	1542	307UCFV2A-9.0A8E	. . .
197.1	8.88	10001	2.08	1831	308UCFV2A-9.0A8E	. . .
169.4	10.33	6018	1.08	1638	307UCFV2A-10.A8E	. . .
171.9	10.18	10709	1.95	1831	308UCFV2A-10.A8E	. . .
153.4	11.41	6372	1.03	1638	307UCFV2A-11.A8E	. . .
155.7	11.24	11505	1.89	1927	308UCFV2A-11.A8E	. . .
157.7	11.10	21240	3.54	2216	309UCFV2A-11.A8E	. . .
141.5	12.37	11505	1.72	2023	308UCFV2A-12.A8E	. . .
138.6	12.63	21240	3.11	2409	309UCFV2A-12.A8E	. . .
125.6	13.93	12390	1.65	2023	308UCFV2A-14.A8E	. . .
128.3	13.64	21240	2.88	2601	309UCFV2A-14.A8E	. . .
113.3	15.45	12390	1.48	2120	308UCFV2A-16.A8E	. . .
115.7	15.12	21240	2.60	2794	309UCFV2A-16.A8E	. . .
98.9	17.70	12390	1.30	2312	308UCFV2A-18.A8E	. . .
100.6	17.40	21240	2.26	2794	309UCFV2A-18.A8E	. . .
84.2	20.78	12390	1.10	2409	308UCFV2A-20.A8E	. . .
89.1	19.63	21240	2.00	2890	309UCFV2A-20.A8E	. . .
86.2	20.31	36285	3.31	4432	310UCFV2A-20.A8E	310UCXV2A-20.A8E
78.7	22.24	12390	1.03	2505	308UCFV2A-22.A8E	. . .
78.3	22.35	21240	1.76	3083	309UCFV2A-22.A8E	. . .
80.7	21.69	36285	3.10	4721	310UCFV2A-22.A8E	310UCXV2A-22.A8E
79.0	22.15	39825	3.33	3661	310UCFV3A-22.A8E	310UCXV3A-22.A8E
71.4	24.52	21240	1.60	3276	309UCFV2A-25.A8E	. . .
72.6	24.12	36285	2.78	5010	310UCFV2A-25.A8E	310UCXV2A-25.A8E
62.3	28.11	21240	1.40	3468	309UCFV2A-28.A8E	. . .
64.0	27.36	36285	2.45	5299	310UCFV2A-28.A8E	310UCXV2A-28.A8E
61.7	28.35	42480	2.77	4336	310UCFV3A-28.A8E	310UCXV3A-28.A8E
57.5	30.46	21240	1.29	3565	309UCFV2A-32.A8E	. . .
58.6	29.86	36285	2.25	5684	310UCFV2A-32.A8E	310UCXV2A-32.A8E
53.4	32.77	44250	2.50	4721	310UCFV3A-32.A8E	310UCXV3A-32.A8E
48.7	35.94	21240	1.09	3854	309UCFV2A-36.A8E	. . .
50.8	34.48	24780	1.33	3565	309UCFV3A-36.A8E	. . .
51.2	34.18	36285	1.97	6166	310UCFV2A-36.A8E	310UCXV2A-36.A8E

(continued)

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
47.7	36.65	44250	2.23	5106	310UCFV3A-36.A8E	310UCXV3A-36.A8E
48.6	36.01	64605	3.32	9827	313UCFV2A-36.A8E	313UCXV2A-36.A8E
43.7	40.09	21240	0.98	4047	309UCFV2A-40.A8E	. . .
45.7	38.33	24780	1.20	3758	309UCFV3A-40.A8E	. . .
46.9	37.35	36285	1.80	6359	310UCFV2A-40.A8E	310UCXV2A-40.A8E
44.2	39.57	44250	2.07	5395	310UCFV3A-40.A8E	310UCXV3A-40.A8E
44.0	39.74	64605	3.01	10020	313UCFV2A-40.A8E	313UCXV2A-40.A8E
40.1	43.63	24780	1.05	4047	309UCFV3A-45.A8E	. . .
39.8	44.00	36285	1.53	6937	310UCFV2A-45.A8E	310UCXV2A-45.A8E
39.3	44.56	44250	1.84	5973	310UCFV3A-45.A8E	310UCXV3A-45.A8E
39.6	44.23	59295	2.48	10116	313UCFV2A-45.A8E	313UCXV2A-45.A8E
39.1	44.76	79650	3.29	9635	313UCFV3A-45.A8E	313UCXV3A-45.A8E
37.2	47.10	24780	0.97	4239	309UCFV3A-50.A8E	. . .
36.1	48.46	35400	1.35	7322	310UCFV2A-50.A8E	310UCXV2A-50.A8E
34.7	50.46	44250	1.62	6166	310UCFV3A-50.A8E	310UCXV3A-50.A8E
35.4	49.39	79650	2.99	10020	313UCFV3A-50.A8E	313UCXV3A-50.A8E
32.5	53.82	32745	1.13	7322	310UCFV2A-56.A8E	310UCXV2A-56.A8E
31.8	55.03	44250	1.49	6552	310UCFV3A-56.A8E	310UCXV3A-56.A8E
31.5	55.50	79650	2.66	10116	313UCFV3A-56.A8E	313UCXV3A-56.A8E
27.7	63.10	44250	1.30	7033	310UCFV3A-63.A8E	310UCXV3A-63.A8E
28.3	61.80	79650	2.39	10116	313UCFV3A-63.A8E	313UCXV3A-63.A8E
23.9	73.11	44250	1.12	7322	310UCFV3A-71.A8E	310UCXV3A-71.A8E
25.3	69.24	79650	2.13	10116	313UCFV3A-71.A8E	313UCXV3A-71.A8E
24.8	70.44	132751	3.49	15801	314UCFV3A-71.A8E	314UCXV3A-71.A8E
21.5	81.23	44250	1.01	7322	310UCFV3A-80.A8E	310UCXV3A-80.A8E
22.4	78.17	79650	1.89	10116	313UCFV3A-80.A8E	313UCXV3A-80.A8E
22.9	76.38	132751	3.22	15801	314UCFV3A-80.A8E	314UCXV3A-80.A8E
20.2	86.77	44250	0.94	7322	310UCFV3A-90.A8E	310UCXV3A-90.A8E
19.9	87.97	79650	1.68	10116	313UCFV3A-90.A8E	313UCXV3A-90.A8E
19.4	90.17	132751	2.73	15801	314UCFV3A-90.A8E	314UCXV3A-90.A8E
17.2	101.47	79650	1.45	10116	313UCFV3A-100A8E	313UCXV3A-100A8E
17.6	99.53	132751	2.47	15801	314UCFV3A-100A8E	314UCXV3A-100A8E
15.8	110.90	79650	1.33	10116	313UCFV3A-112A8E	313UCXV3A-112A8E
15.8	110.75	132751	2.22	15801	314UCFV3A-112A8E	314UCXV3A-112A8E
14.6	120.26	79650	1.23	10116	313UCFV3A-125A8E	313UCXV3A-125A8E
14.5	120.75	221251	3.39	20233	316UCFV3A-125A8E	316UCXV3A-125A8E
12.3	141.97	79650	1.04	10116	313UCFV3A-140A8E	313UCXV3A-140A8E
12.3	142.55	221251	2.87	20233	316UCFV3A-140A8E	316UCXV3A-140A8E
11.2	156.70	79650	0.94	10116	313UCFV3A-160A8E	313UCXV3A-160A8E
11.1	157.34	221251	2.60	20233	316UCFV3A-160A8E	316UCXV3A-160A8E
10.0	175.09	221251	2.34	20233	316UCFV3A-180A8E	316UCXV3A-180A8E

UCFV/UCXV — Gearmotor Selection Table

20 HP/1750 rpm/256TC Frame

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
319.3	5.48	4602	1.17	1349	307UCFV2A-5.6A8E	. . .
324.1	5.40	7523	1.93	1734	308UCFV2A-5.6A8E	. . .
321.1	5.45	13895	3.54	2023	309UCFV2A-5.6A8E	. . .
275.2	6.36	4868	1.06	1349	307UCFV2A-6.3A8E	. . .
289.3	6.05	8054	1.85	1734	308UCFV2A-6.3A8E	. . .
278.7	6.28	14868	3.29	2023	309UCFV2A-6.3A8E	. . .
245.8	7.12	5133	1.00	1445	307UCFV2A-7.1A8E	. . .
251.1	6.97	8673	1.73	1734	308UCFV2A-7.1A8E	. . .
246.8	7.09	15930	3.12	2023	309UCFV2A-7.1A8E	. . .
221.5	7.90	9293	1.63	1734	308UCFV2A-8.0A8E	. . .
223.5	7.83	17169	3.04	2023	309UCFV2A-8.0A8E	. . .
197.1	8.88	10001	1.56	1831	308UCFV2A-9.0A8E	. . .
197.1	8.88	18408	2.87	2120	309UCFV2A-9.0A8E	. . .
171.9	10.18	10709	1.46	1831	308UCFV2A-10.A8E	. . .
175.2	9.99	19824	2.76	2216	309UCFV2A-10.A8E	. . .
155.7	11.24	11505	1.42	1927	308UCFV2A-11.A8E	. . .
157.7	11.10	21240	2.66	2216	309UCFV2A-11.A8E	. . .
141.5	12.37	11505	1.29	2023	308UCFV2A-12.A8E	. . .
138.6	12.63	21240	2.33	2409	309UCFV2A-12.A8E	. . .
125.6	13.93	12390	1.23	2023	308UCFV2A-14.A8E	. . .
128.3	13.64	21240	2.16	2601	309UCFV2A-14.A8E	. . .
127.2	13.76	36285	3.66	3372	310UCFV2A-14.A8E	310UCXV2A-14.A8E
113.3	15.45	12390	1.11	2120	308UCFV2A-16.A8E	. . .
115.7	15.12	21240	1.95	2794	309UCFV2A-16.A8E	. . .
111.0	15.77	36285	3.19	3758	310UCFV2A-16.A8E	310UCXV2A-16.A8E
98.9	17.70	12390	0.97	2312	308UCFV2A-18.A8E	. . .
100.6	17.40	21240	1.69	2794	309UCFV2A-18.A8E	. . .
95.7	18.28	36285	2.76	4143	310UCFV2A-18.A8E	310UCXV2A-18.A8E
89.1	19.63	21240	1.50	2890	309UCFV2A-20.A8E	. . .
86.2	20.31	36285	2.48	4432	310UCFV2A-20.A8E	310UCXV2A-20.A8E
87.7	19.96	39825	2.77	4721	310UCFV3A-20.A8E	310UCXV3A-20.A8E
78.3	22.35	21240	1.32	3083	309UCFV2A-22.A8E	. . .
80.7	21.69	36285	2.32	4721	310UCFV2A-22.A8E	310UCXV2A-22.A8E
79.0	22.15	39825	2.50	3661	310UCFV3A-22.A8E	310UCXV3A-22.A8E
71.4	24.52	21240	1.20	3276	309UCFV2A-25.A8E	. . .
72.6	24.12	36285	2.09	5010	310UCFV2A-25.A8E	310UCXV2A-25.A8E
68.0	25.73	64605	3.49	8286	313UCFV2A-25.A8E	313UCXV2A-25.A8E
62.3	28.11	21240	1.05	3468	309UCFV2A-28.A8E	. . .
64.0	27.36	36285	1.84	5299	310UCFV2A-28.A8E	310UCXV2A-28.A8E
61.7	28.35	42480	2.08	4336	310UCFV3A-28.A8E	310UCXV3A-28.A8E
62.2	28.13	64605	3.19	8671	313UCFV2A-28.A8E	313UCXV2A-28.A8E

(continued)

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
57.5	30.46	21240	0.97	3565	309UCFV2A-32.A8E	. . .
58.6	29.86	36285	1.69	5684	310UCFV2A-32.A8E	310UCXV2A-32.A8E
57.4	30.50	64605	2.94	9249	313UCFV2A-32.A8E	313UCXV2A-32.A8E
50.8	34.48	24780	1.00	3565	309UCFV3A-36.A8E	. . .
51.2	34.18	36285	1.47	6166	310UCFV2A-36.A8E	310UCXV2A-36.A8E
47.7	36.65	44250	1.68	5106	310UCFV3A-36.A8E	310UCXV3A-36.A8E
48.6	36.01	64605	2.49	9827	313UCFV2A-36.A8E	313UCXV2A-36.A8E
46.9	37.35	36285	1.35	6359	310UCFV2A-40.A8E	310UCXV2A-40.A8E
44.2	39.57	44250	1.55	5395	310UCFV3A-40.A8E	310UCXV3A-40.A8E
44.0	39.74	64605	2.26	10020	313UCFV2A-40.A8E	313UCXV2A-40.A8E
45.0	38.87	79650	2.84	8864	313UCFV3A-40.A8E	313UCXV3A-40.A8E
39.8	44.00	36285	1.14	6937	310UCFV2A-45.A8E	310UCXV2A-45.A8E
39.3	44.56	44250	1.38	5973	310UCFV3A-45.A8E	310UCXV3A-45.A8E
39.6	44.23	59295	1.86	10116	313UCFV2A-45.A8E	313UCXV2A-45.A8E
39.1	44.76	79650	2.47	9635	313UCFV3A-45.A8E	313UCXV3A-45.A8E
36.1	48.46	35400	1.01	7322	310UCFV2A-50.A8E	310UCXV2A-50.A8E
34.7	50.46	44250	1.22	6166	310UCFV3A-50.A8E	310UCXV3A-50.A8E
35.4	49.39	79650	2.24	10020	313UCFV3A-50.A8E	313UCXV3A-50.A8E
31.8	55.03	44250	1.12	6552	310UCFV3A-56.A8E	310UCXV3A-56.A8E
31.5	55.50	79650	1.99	10116	313UCFV3A-56.A8E	313UCXV3A-56.A8E
31.3	55.87	132751	3.30	15801	314UCFV3A-56.A8E	314UCXV3A-56.A8E
27.7	63.10	44250	0.97	7033	310UCFV3A-63.A8E	310UCXV3A-63.A8E
28.3	61.80	79650	1.79	10116	313UCFV3A-63.A8E	313UCXV3A-63.A8E
27.2	64.45	132751	2.86	15801	314UCFV3A-63.A8E	314UCXV3A-63.A8E
25.3	69.24	79650	1.60	10116	313UCFV3A-71.A8E	313UCXV3A-71.A8E
24.8	70.44	132751	2.62	15801	314UCFV3A-71.A8E	314UCXV3A-71.A8E
22.4	78.17	79650	1.41	10116	313UCFV3A-80.A8E	313UCXV3A-80.A8E
22.9	76.38	132751	2.41	15801	314UCFV3A-80.A8E	314UCXV3A-80.A8E
19.9	87.97	79650	1.26	10116	313UCFV3A-90.A8E	313UCXV3A-90.A8E
19.4	90.17	132751	2.04	15801	314UCFV3A-90.A8E	314UCXV3A-90.A8E
19.8	88.33	221251	3.48	20233	316UCFV3A-90.A8E	316UCXV3A-90.A8E
17.2	101.47	79650	1.09	10116	313UCFV3A-100A8E	313UCXV3A-100A8E
17.6	99.53	132751	1.85	15801	314UCFV3A-100A8E	314UCXV3A-100A8E
17.2	101.88	221251	3.02	20233	316UCFV3A-100A8E	316UCXV3A-100A8E
15.8	110.90	79650	1.00	10116	313UCFV3A-112A8E	313UCXV3A-112A8E
15.8	110.75	132751	1.66	15801	314UCFV3A-112A8E	314UCXV3A-112A8E
15.8	111.00	221251	2.72	20233	316UCFV3A-112A8E	316UCXV3A-112A8E
14.5	120.75	221251	2.54	20233	316UCFV3A-125A8E	316UCXV3A-125A8E
12.3	142.55	221251	2.15	20233	316UCFV3A-140A8E	316UCXV3A-140A8E
11.1	157.34	221251	1.95	20233	316UCFV3A-160A8E	316UCXV3A-160A8E
10.0	175.09	221251	1.75	20233	316UCFV3A-180A8E	316UCXV3A-180A8E

UCFV/UCXV — Gearmotor Selection Table

25 HP/1750 rpm/284TC Frame

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
157.1	11.14	35400	3.53	3083	310UCFV2A-11.A8F	310UCXV2A-11.A8F
138.7	12.62	36285	3.19	5106	310UCFV2A-12.A8F	310UCXV2A-12.A8F
127.2	13.76	36285	2.93	3372	310UCFV2A-14.A8F	310UCXV2A-14.A8F
111.0	15.77	36285	2.56	3758	310UCFV2A-16.A8F	310UCXV2A-16.A8F
95.7	18.28	36285	2.20	4143	310UCFV2A-18.A8F	310UCXV2A-18.A8F
86.2	20.31	36285	1.98	4432	310UCFV2A-20.A8F	310UCXV2A-20.A8F
88.3	19.83	64605	3.62	7130	313UCFV2A-20.A8F	313UCXV2A-20.A8F
80.7	21.69	36285	1.86	4721	310UCFV2A-22.A8F	310UCXV2A-22.A8F
78.4	22.31	64605	3.22	7708	313UCFV2A-22.A8F	313UCXV2A-22.A8F
72.6	24.12	36285	1.67	5010	310UCFV2A-25.A8F	310UCXV2A-25.A8F
68.0	25.73	64605	2.79	8286	313UCFV2A-25.A8F	313UCXV2A-25.A8F
69.5	25.17	79650	3.51	8479	313UCFV3A-25.A8F	313UCXV3A-25.A8F
64.0	27.36	36285	1.47	5299	310UCFV2A-28.A8F	310UCXV2A-28.A8F
61.7	28.35	42480	1.66	4336	310UCFV3A-28.A8F	310UCXV3A-28.A8F
62.2	28.13	64605	2.55	8671	313UCFV2A-28.A8F	313UCXV2A-28.A8F
61.3	28.56	79650	3.10	7130	313UCFV3A-28.A8F	313UCXV3A-28.A8F
58.6	29.86	36285	1.35	5684	310UCFV2A-32.A8F	310UCXV2A-32.A8F
57.4	30.50	64605	2.35	9249	313UCFV2A-32.A8F	313UCXV2A-32.A8F
56.2	31.12	79650	2.84	7708	313UCFV3A-32.A8F	313UCXV3A-32.A8F
51.2	34.18	36285	1.18	6166	310UCFV2A-36.A8F	310UCXV2A-36.A8F
47.7	36.65	44250	1.34	5106	310UCFV3A-36.A8F	310UCXV3A-36.A8F
48.6	36.01	64605	1.99	9827	313UCFV2A-36.A8F	313UCXV2A-36.A8F
49.3	35.50	79650	2.49	8286	313UCFV3A-36.A8F	313UCXV3A-36.A8F
46.9	37.35	36285	1.08	6359	310UCFV2A-40.A8F	310UCXV2A-40.A8F
44.0	39.74	64605	1.81	10020	313UCFV2A-40.A8F	313UCXV2A-40.A8F
45.0	38.87	79650	2.28	8864	313UCFV3A-40.A8F	313UCXV3A-40.A8F
39.3	44.56	44250	1.10	5973	310UCFV3A-45.A8F	310UCXV3A-45.A8F
39.6	44.23	59295	1.49	10116	313UCFV2A-16.A8F	313UCXV2A-16.A8F
39.1	44.76	79650	1.98	9635	313UCFV3A-45.A8F	313UCXV3A-45.A8F
39.8	43.98	132751	3.35	15801	314UCFV3A-45.A8F	314UCXV3A-45.A8F
34.7	50.46	44250	0.97	6166	310UCFV3A-50.A8F	310UCXV3A-50.A8F
35.4	49.39	79650	1.79	10020	313UCFV3A-50.A8F	313UCXV3A-50.A8F
35.2	49.65	132751	2.97	15801	314UCFV3A-50.A8F	314UCXV3A-50.A8F
31.5	55.50	79650	1.59	10116	313UCFV3A-56.A8F	313UCXV3A-56.A8F
31.3	55.87	132751	2.64	15801	314UCFV3A-56.A8F	314UCXV3A-56.A8F
28.3	61.80	79650	1.43	10116	313UCFV3A-63.A8F	313UCXV3A-63.A8F
27.2	64.45	132751	2.29	15801	314UCFV3A-63.A8F	314UCXV3A-63.A8F
25.3	69.24	79650	1.28	10116	313UCFV3A-71.A8F	313UCXV3A-71.A8F

(continued)

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
24.8	70.44	132751	2.09	15801	314UCFV3A-71.A8F	314UCXV3A-71.A8F
25.2	69.52	221251	3.53	20233	316UCFV3A-71.A8F	316UCXV3A-71.A8F
22.4	78.17	79650	1.13	10116	313UCFV3A-80.A8F	313UCXV3A-80.A8F
22.9	76.38	132751	1.93	15801	314UCFV3A-80.A8F	314UCXV3A-80.A8F
22.3	78.49	221251	3.13	20233	316UCFV3A-80.A8F	316UCXV3A-80.A8F
19.9	87.97	79650	1.01	10116	313UCFV3A-90.A8F	313UCXV3A-90.A8F
19.4	90.17	132751	1.64	15801	314UCFV3A-90.A8F	314UCXV3A-90.A8F
19.8	88.33	221251	2.78	20233	316UCFV3A-90.A8F	316UCXV3A-90.A8F
17.6	99.53	132751	1.48	15801	314UCFV3A-100A8F	314UCXV3A-100A8F
17.2	101.88	221251	2.41	20233	316UCFV3A-100A8F	316UCXV3A-100A8F
15.8	110.75	132751	1.33	15801	314UCFV3A-112A8F	314UCXV3A-112A8F
15.7	111.36	221251	2.18	20233	316UCFV3A-112A8F	316UCXV3A-112A8F
14.5	120.75	221251	2.04	20233	316UCFV3A-125A8F	316UCXV3A-125A8F
12.3	142.55	221251	1.72	20233	316UCFV3A-140A8F	316UCXV3A-140A8F
11.1	157.34	221251	1.56	20233	316UCFV3A-160A8F	316UCXV3A-160A8F
10.0	175.09	221251	1.40	20233	316UCFV3A-180A8F	316UCXV3A-180A8F

UCFV/UCXV — Gearmotor Selection Table

30 HP/1750 rpm/286TC Frame

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
191.0	9.16	33630	3.40	2987	310UCFV2A-9.0A8F	310UCXV2A-9.0A8F
176.9	9.89	34515	3.23	2987	310UCFV2A-10.A8F	310UCXV2A-10.A8F
157.1	11.14	35400	2.94	3083	310UCFV2A-11.A8F	310UCXV2A-11.A8F
138.7	12.62	36285	2.66	5106	310UCFV2A-12.A8F	310UCXV2A-12.A8F
127.2	13.76	36285	2.44	3372	310UCFV2A-14.A8F	310UCXV2A-14.A8F
111.0	15.77	36285	2.13	3758	310UCFV2A-16.A8F	310UCXV2A-16.A8F
95.7	18.28	36285	1.84	4143	310UCFV2A-18.A8F	310UCXV2A-18.A8F
99.7	17.56	64605	3.41	6744	313UCFV2A-18.A8F	313UCXV2A-18.A8F
86.2	20.31	36285	1.65	4432	310UCFV2A-20.A8F	310UCXV2A-20.A8F
87.7	19.96	39825	1.85	4721	310UCFV3A-20.A8F	310UCXV3A-20.A8F
88.3	19.83	64605	3.02	7130	313UCFV2A-20.A8F	313UCXV2A-20.A8F
80.7	21.69	36285	1.55	4721	310UCFV2A-22.A8F	310UCXV2A-22.A8F
78.4	22.31	64605	2.68	7708	313UCFV2A-22.A8F	313UCXV2A-22.A8F
78.8	22.22	79650	3.32	8479	313UCFV3A-22.A8F	313UCXV3A-22.A8F
72.6	24.12	36285	1.39	5010	310UCFV2A-25.A8F	310UCXV2A-25.A8F
68.0	25.73	64605	2.32	8286	313UCFV2A-25.A8F	313UCXV2A-25.A8F
69.5	25.17	79650	2.93	8479	313UCFV3A-25.A8F	313UCXV3A-25.A8F
64.0	27.36	36285	1.23	5299	310UCFV2A-28.A8F	310UCXV2A-28.A8F
61.7	28.35	42480	1.39	4336	310UCFV3A-28.A8F	310UCXV3A-28.A8F
62.2	28.13	64605	2.13	8671	313UCFV2A-28.A8F	313UCXV2A-28.A8F
61.3	28.56	79650	2.58	7130	313UCFV3A-28.A8F	313UCXV3A-28.A8F
58.6	29.86	36285	1.12	5684	310UCFV2A-32.A8F	310UCXV2A-32.A8F
57.4	30.50	64605	1.96	9249	313UCFV2A-32.A8F	313UCXV2A-32.A8F
56.2	31.12	79650	2.37	7708	313UCFV3A-32.A8F	313UCXV3A-32.A8F
51.2	34.18	36285	0.98	6166	310UCFV2A-36.A8F	310UCXV2A-36.A8F
47.7	36.65	44250	1.12	5106	310UCFV3A-36.A8F	310UCXV3A-36.A8F
48.6	36.01	64605	1.66	9827	313UCFV2A-36.A8F	313UCXV2A-36.A8F
49.3	35.50	79650	2.08	8286	313UCFV3A-36.A8F	313UCXV3A-36.A8F
49.6	35.25	132751	3.49	15801	314UCFV3A-36.A8F	314UCXV3A-36.A8F
44.2	39.57	44250	1.04	5395	310UCFV3A-40.A8F	310UCXV3A-40.A8F
44.0	39.74	64605	1.50	10020	313UCFV2A-40.A8F	313UCXV2A-40.A8F
45.0	38.87	79650	1.90	8864	313UCFV3A-40.A8F	313UCXV3A-40.A8F
44.6	39.25	132751	3.13	15801	314UCFV3A-40.A8F	314UCXV3A-40.A8F
39.6	44.23	59295	1.24	10116	313UCFV2A-45.A8F	313UCXV2A-45.A8F
39.1	44.76	79650	1.65	9635	313UCFV3A-45.A8F	313UCXV3A-45.A8F
39.8	43.98	132751	2.79	15801	314UCFV3A-45.A8F	314UCXV3A-45.A8F
35.4	49.39	79650	1.49	10020	313UCFV3A-50.A8F	313UCXV3A-50.A8F
35.2	49.65	132751	2.47	15801	314UCFV3A-50.A8F	314UCXV3A-50.A8F

(continued)

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
31.5	55.50	79650	1.33	10116	313UCFV3A-56.A8F	313UCXV3A-56.A8F
31.3	55.87	132751	2.20	15801	314UCFV3A-56.A8F	314UCXV3A-56.A8F
28.3	61.80	79650	1.19	10116	313UCFV3A-63.A8F	313UCXV3A-63.A8F
27.2	64.45	132751	1.91	15801	314UCFV3A-63.A8F	314UCXV3A-63.A8F
28.2	62.05	221251	3.30	20233	316UCFV3A-63.A8F	316UCXV3A-63.A8F
25.3	69.24	79650	1.06	10116	313UCFV3A-71.A8F	313UCXV3A-71.A8F
24.8	70.44	132751	1.74	15801	314UCFV3A-71.A8F	314UCXV3A-71.A8F
25.2	69.52	221251	2.95	20233	316UCFV3A-71.A8F	316UCXV3A-71.A8F
22.4	78.17	79650	0.94	10116	313UCFV3A-80.A8F	313UCXV3A-80.A8F
22.9	76.38	132751	1.61	15801	314UCFV3A-80.A8F	314UCXV3A-80.A8F
22.3	78.49	221251	2.61	20233	316UCFV3A-80.A8F	316UCXV3A-80.A8F
19.4	90.17	132751	1.36	15801	314UCFV3A-90.A8F	314UCXV3A-90.A8F
19.8	88.33	221251	2.32	20233	316UCFV3A-90.A8F	316UCXV3A-90.A8F
17.6	99.53	132751	1.23	15801	314UCFV3A-100A8F	314UCXV3A-100A8F
17.2	101.88	221251	2.01	20233	316UCFV3A-100A8F	316UCXV3A-100A8F
15.8	110.75	132751	1.11	15801	314UCFV3A-112A8F	314UCXV3A-112A8F
15.7	111.36	221251	1.81	20233	316UCFV3A-112A8F	316UCXV3A-112A8F
14.5	120.75	221251	1.70	20233	316UCFV3A-125A8F	316UCXV3A-125A8F
12.3	142.55	221251	1.44	20233	316UCFV3A-140A8F	316UCXV3A-140A8F
11.1	157.34	221251	1.30	20233	316UCFV3A-160A8F	316UCXV3A-160A8F
10.0	175.09	221251	1.17	20233	316UCFV3A-180A8F	316UCXV3A-180A8F

UCFV/UCXV — Gearmotor Selection Table

40 HP/1750 rpm/324TC Frame

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
315.9	5.54	26550	3.33	4528	310UCFV2A-5.6A8G	310UCXV2A-5.6A8G
265.2	6.60	29205	3.07	4336	310UCFV2A-6.3A8G	310UCXV2A-6.3A8G
246.8	7.09	30975	3.03	4336	310UCFV2A-7.1A8G	310UCXV2A-7.1A8G
213.7	8.19	31860	2.70	3950	310UCFV2A-8.0A8G	310UCXV2A-8.0A8G
191.0	9.16	33630	2.55	2987	310UCFV2A-9.0A8G	310UCXV2A-9.0A8G
176.9	9.89	34515	2.42	2987	310UCFV2A-10.A8G	310UCXV2A-10.A8G
157.1	11.14	35400	2.21	3083	310UCFV2A-11.A8G	310UCXV2A-11.A8G
138.7	12.62	36285	2.00	5106	310UCFV2A-12.A8G	310UCXV2A-12.A8G
139.7	12.53	64605	3.58	7322	313UCFV2A-12.A8G	313UCXV2A-12.A8G
127.2	13.76	36285	1.83	3372	310UCFV2A-14.A8G	310UCXV2A-14.A8G
124.3	14.08	64605	3.19	7322	313UCFV2A-14.A8G	313UCXV2A-14.A8G
115.7	15.12	21240	0.98	2794	309UCFV2A-16.A8G	. . .
111.0	15.77	36285	1.60	3758	310UCFV2A-16.A8G	310UCXV2A-16.A8G
111.7	15.67	64605	2.86	6359	313UCFV2A-16.A8G	313UCXV2A-16.A8G
95.7	18.28	36285	1.38	4143	310UCFV2A-18.A8G	310UCXV2A-18.A8G
99.7	17.56	64605	2.55	6744	313UCFV2A-18.A8G	313UCXV2A-18.A8G
86.2	20.31	36285	1.24	4432	310UCFV2A-20.A8G	310UCXV2A-20.A8G
88.3	19.83	64605	2.26	7130	313UCFV2A-20.A8G	313UCXV2A-20.A8G
89.1	19.63	79650	2.82	8864	313UCFV3A-20.A8G	313UCXV3A-20.A8G
80.7	21.69	36285	1.16	4721	310UCFV2A-22.A8G	310UCXV2A-22.A8G
78.4	22.31	64605	2.01	7708	313UCFV2A-22.A8G	313UCXV2A-22.A8G
78.8	22.22	79650	2.49	8479	313UCFV3A-22.A8G	313UCXV3A-22.A8G
72.6	24.12	36285	1.04	5010	310UCFV2A-25.A8G	310UCXV2A-25.A8G
68.0	25.73	64605	1.74	8286	313UCFV2A-25.A8G	313UCXV2A-25.A8G
69.5	25.17	79650	2.20	8479	313UCFV3A-25.A8G	313UCXV3A-25.A8G
61.7	28.35	42480	1.04	4336	310UCFV3A-28.A8G	310UCXV3A-28.A8G
62.2	28.13	64605	1.59	8671	313UCFV2A-28.A8G	313UCXV2A-28.A8G
61.3	28.56	79650	1.94	7130	313UCFV3A-28.A8G	313UCXV3A-28.A8G
61.6	28.43	132751	3.24	14645	314UCFV3A-28.A8G	314UCXV3A-28.A8G
57.4	30.50	64605	1.47	9249	313UCFV2A-32.A8G	313UCXV2A-32.A8G
56.2	31.12	79650	1.78	7708	313UCFV3A-32.A8G	313UCXV3A-32.A8G
55.8	31.37	132751	2.94	15608	314UCFV3A-32.A8G	314UCXV3A-32.A8G
48.6	36.01	64605	1.25	9827	313UCFV2A-36.A8G	313UCXV2A-36.A8G
49.3	35.50	79650	1.56	8286	313UCFV3A-36.A8G	313UCXV3A-36.A8G
49.6	35.25	132751	2.61	15801	314UCFV3A-36.A8G	314UCXV3A-36.A8G
44.0	39.74	64605	1.13	10020	313UCFV2A-40.A8G	313UCXV2A-40.A8G
45.0	38.87	79650	1.42	8864	313UCFV3A-40.A8G	313UCXV3A-40.A8G
44.6	39.25	132751	2.35	15801	314UCFV3A-40.A8G	314UCXV3A-40.A8G
39.1	44.76	79650	1.24	9635	313UCFV3A-45.A8G	313UCXV3A-45.A8G
39.8	43.98	132751	2.10	15801	314UCFV3A-45.A8G	314UCXV3A-45.A8G
38.9	44.95	221251	3.42	20233	316UCFV3A-45.A8G	316UCXV3A-45.A8G
35.4	49.39	79650	1.12	10020	313UCFV3A-50.A8G	313UCXV3A-50.A8G
35.2	49.65	132751	1.86	15801	314UCFV3A-50.A8G	314UCXV3A-50.A8G
35.3	49.59	221251	3.10	20233	316UCFV3A-50.A8G	316UCXV3A-50.A8G
31.5	55.50	79650	1.00	10116	313UCFV3A-56.A8G	313UCXV3A-56.A8G
31.3	55.87	132751	1.65	15801	314UCFV3A-56.A8G	314UCXV3A-56.A8G
31.4	55.73	221251	2.76	20233	316UCFV3A-56.A8G	316UCXV3A-56.A8G
27.2	64.45	132751	1.43	1580 1	314UCFV3A-63.A8G	314UCXV3A-63.A8G
28.2	62.05	221251	2.48	20233	316UCFV3A-56.A8G	316UCXV3A-56.A8G
24.8	70.44	132751	1.31	15801	314UCFV3A-71.A8G	314UCXV3A-71.A8G
25.2	69.52	221251	2.21	20233	316UCFV3A-71.A8G	316UCXV3A-71.A8G
22.9	76.38	132751	1.21	15801	314UCFV3A-80.A8G	314UCXV3A-80.A8G
22.3	78.49	221251	1.96	20233	316UCFV3A-80.A8G	316UCXV3A-80.A8G
19.4	90.17	132751	1.02	15801	314UCFV3A-90.A8G	314UCXV3A-90.A8G
19.8	88.33	221251	1.74	20233	316UCFV3A-90.A8G	316UCXV3A-90.A8G
17.2	101.88	221251	1.51	20233	316UCFV3A-100A8G	316UCXV3A-100A8G
14.5	120.75	221251	1.27	20233	316UCFV3A-125A8G	316UCXV3A-125A8G
12.3	142.55	221251	1.08	20233	316UCFV3A-140A8G	316UCXV3A-140A8G
11.1	157.34	221251	0.98	20233	316UCFV3A-160A8G	316UCXV3A-160A8G

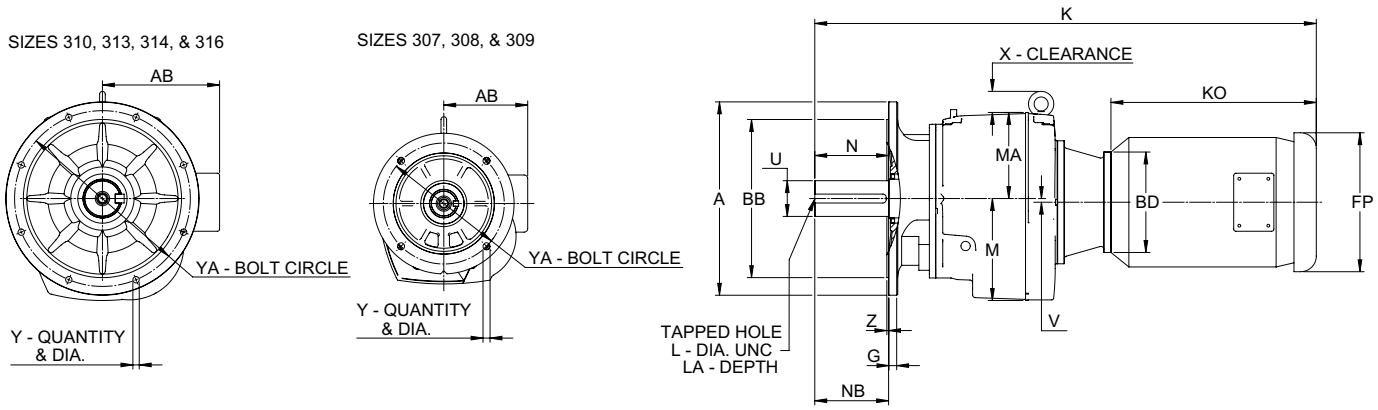
UCFV/UCXV — Gearmotor Selection Table

50 HP/1750 rpm/326TC Frame

n_2 RPM	i_{ex}	T_2m Lbf-in	SF	F_{rn} Lbf	**Model Number** includes low speed flange and heavy duty bearings	**Model Number** includes low speed flange, drywell and heavy duty bearings
315.9	5.54	26550	2.66	4528	310UCFV2A-5.6A8G	310UCXV2A-5.6A8G
265.2	6.60	29205	2.46	4336	310UCFV2A-6.3A8G	310UCXV2A-6.3A8G
246.8	7.09	30975	2.43	4336	310UCFV2A-7.1A8G	310UCXV2A-7.1A8G
213.7	8.19	31860	2.16	3950	310UCFV2A-8.0A8G	310UCXV2A-8.0A8G
191.0	9.16	33630	2.04	2987	310UCFV2A-9.0A8G	310UCXV2A-9.0A8G
176.9	9.89	34515	1.94	2987	310UCFV2A-10.A8G	310UCXV2A-10.A8G
157.1	11.14	35400	1.76	3083	310UCFV2A-11.A8G	310UCXV2A-11.A8G
154.2	11.35	64605	3.16	7515	313UCFV2A-11.A8G	313UCXV2A-11.A8G
138.7	12.62	36285	1.60	5106	310UCFV2A-12.A8G	310UCXV2A-12.A8G
139.7	12.53	64605	2.86	7322	313UCFV2A-12.A8G	313UCXV2A-12.A8G
124.3	14.08	64605	2.55	7322	313UCFV2A-14.A8G	313UCXV2A-14.A8G
95.7	18.28	36285	1.10	4143	310UCFV2A-18.A8G	310UCXV2A-18.A8G
86.2	20.31	36285	0.99	4432	310UCFV2A-20.A8G	310UCXV2A-20.A8G
88.3	19.83	64605	1.81	7130	313UCFV2A-20.A8G	313UCXV2A-20.A8G
89.1	19.63	79650	2.25	8864	313UCFV3A-20.A8G	313UCXV3A-20.A8G
79.0	22.15	39825	1.00	3661	310UCFV3A-22.A8G	310UCXV3A-22.A8G
78.4	22.31	64605	1.61	7708	313UCFV2A-22.A8G	313UCXV2A-22.A8G
78.8	22.22	79650	1.99	8479	313UCFV3A-22.A8G	313UCXV3A-22.A8G
77.6	22.55	132751	3.27	15801	314UCFV3A-22.A8G	314UCXV3A-22.A8G
68.0	25.73	64605	1.39	8286	313UCFV2A-25.A8G	313UCXV2A-25.A8G
69.5	25.17	79650	1.76	8479	313UCFV3A-25.A8G	313UCXV3A-25.A8G
70.9	24.69	132751	2.99	15801	314UCFV3A-25.A8G	314UCXV3A-25.A8G
62.2	28.13	64605	1.28	8671	313UCFV2A-28.A8G	313UCXV2A-28.A8G
61.3	28.56	79650	1.55	7130	313UCFV3A-28.A8G	313UCXV3A-28.A8G
61.6	28.43	132751	2.59	14645	314UCFV3A-28.A8G	314UCXV3A-28.A8G
57.4	30.5	64605	1.18	9249	313UCFV2A-32.A8G	313UCXV2A-32.A8G
56.2	31.12	79650	1.42	7708	313UCFV3A-32.A8G	313UCXV3A-32.A8G
55.8	31.37	132751	2.35	15608	314UCFV3A-32.A8G	314UCXV3A-32.A8G
48.6	36.01	64605	1.00	9827	313UCFV2A-36.A8G	313UCXV2A-36.A8G
49.3	35.50	79650	1.25	8286	313UCFV3A-36.A8G	313UCXV3A-36.A8G
49.6	35.25	132751	2.09	15801	314UCFV3A-36.A8G	314UCXV3A-36.A8G
49.1	35.65	221251	3.45	20233	316UCFV3A-36.A8G	316UCXV3A-36.A8G
45.0	38.87	79650	1.14	8864	313UCFV3A-40.A8G	313UCXV3A-40.A8G
44.8	39.03	221251	3.15	20233	316UCFV3A-40.A8G	316UCXV3A-40.A8G
39.1	44.76	79650	0.99	9635	313UCFV3A-45.A8G	313UCXV3A-45.A8G
38.9	44.95	221251	2.73	20233	316UCFV3A-45.A8G	316UCXV3A-45.A8G
35.2	49.65	132751	1.48	15801	314UCFV3A-50.A8G	314UCXV3A-50.A8G
35.3	49.59	221251	2.48	20233	316UCFV3A-50.A8G	316UCXV3A-50.A8G
31.3	55.87	132751	1.32	15801	314UCFV3A-56.A8G	314UCXV3A-56.A8G
31.4	55.73	221251	2.20	20233	316UCFV3A-56.A8G	316UCXV3A-56.A8G
27.2	64.45	132751	1.14	15801	314UCFV3A-63.A8G	314UCXV3A-63.A8G
24.8	70.44	132751	1.05	15801	314UCFV3A-63.A8G	314UCXV3A-63.A8G
22.9	76.38	132751	0.97	15801	314UCFV3A-80.A8G	314UCXV3A-80.A8G
22.3	78.49	221251	1.57	20233	316UCFV3A-80.A8G	316UCXV3A-80.A8G
19.8	88.33	221251	1.39	20233	316UCFV3A-90.A8G	316UCXV3A-90.A8G
17.2	101.88	221251	1.21	20233	316UCFV3A-100A8G	316UCXV3A-100A8G
15.7	111.36	221251	1.09	20233	316UCFV3A-112A8G	316UCXV3A-112A8G
14.5	120.75	221251	1.02	20233	316UCFV3A-125A8G	316UCXV3A-125A8G

Type UC Double & Triple Reduction Gearmotor — UCFV

Sizes 307, 308, 309, 310, 313, 314, 316 — Dimensions – Inches



SIZE	A	BB ●	G	L	LA	M	MA	N	NB	V	Low Speed Shaft		X	Y	YA	Z
											U‡	Key				
307	9.84	7.0866	0.47	0.625-11	1.88	5.63	4.53	3.39	3.54	. . .	1.750	0.375 X 0.375 X 3.00	1.55	4-0.49	8.46	0.16
308	11.81	9.0551	0.59	0.75-10	2.13	7.24	5.77	4.17	4.33	. . .	2.125	0.50 X 0.50 X 3.75	1.89	4-0.55	10.43	0.16
309	13.78	9.8425	0.71	0.75-10	2.13	8.86	6.69	4.92	5.12	. . .	2.500	0.625 X 0.625 X 4.5	2.24	4-0.69	11.81	0.20
310	17.72	13.7795	0.87	0.75-10	2.13	9.45	8.39	6.50	6.69	. . .	3.125	0.75 X 0.75 X 6.0	2.01	8-0.71	15.75	0.20
313	21.65	17.7165	1.02	1.00-8	2.64	11.42	9.96	8.07	8.27	0.41	4.000	1.00 X 1.00 X 7.50	2.36	8-0.71	19.69	0.20
314	21.65	17.7165	1.10	1.00-8	2.64	13.78	12.32	8.07	8.27	1.77	4.750	1.25 X 1.25 X 7.50	3.66	8-0.69	19.69	0.20
316	25.98	21.6535	1.26	1.25-7	3.22	15.35	14.02	9.61	9.84	3.15	5.500	1.25 X 1.25 X 9.0	3.46	8-0.87	23.62	0.24

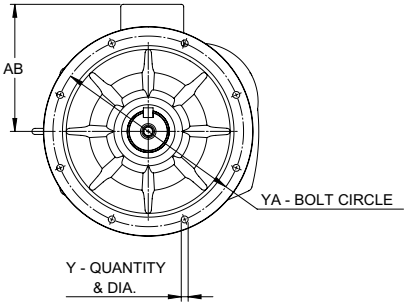
● Sizes 307 & 308 tolerances is +0.0007, -0.0005; Size 309 tolerance is +0.0000, -0.0012; Size 310 tolerance is +0.0000, -0.0014; Sizes 313 & 314 tolerances is +0.0000, -0.0016; Size 316 tolerance is +0.0000, -0.0028.

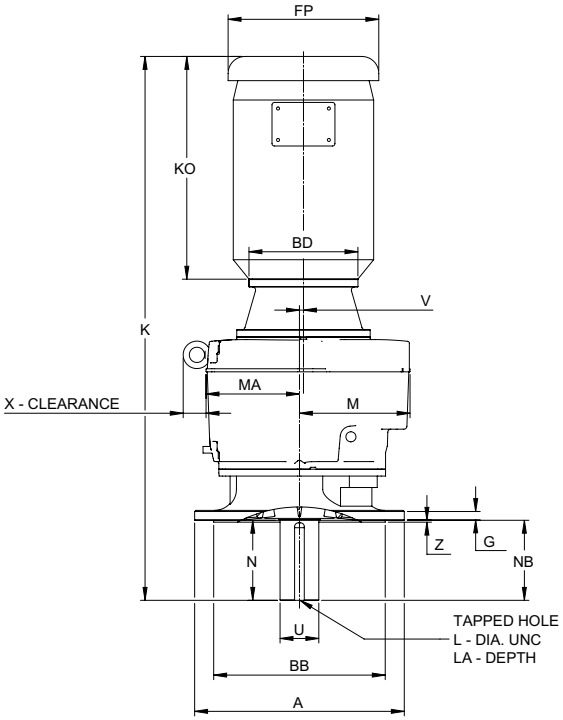
‡ All sizes tolerance are +0.000, -0.025.

Frame Size	Drive Size										
	All Sizes				K (Max)						
	AB	BD	FP	K0	307	308	309	310	313	314	316
56C	5.25	6.50	7.19	9.32	27.08	29.34	32.13	. . .	. . .	. . .	. . .
142TC/145TC	5.25	6.50	7.19	12.07	29.83	32.09	34.88	. . .	. . .	. . .	. . .
182TC/184TC	5.88	9.00	8.50	15.43	34.98	37.24	40.04	. . .	. . .	. . .	. . .
213TC/215TC	7.38	9.00	10.19	16.31	35.86	38.12	40.92	43.93	47.87	51.61	55.38
254TC/256TC	9.63	10.00	12.50	19.88	. . .	. . .	. . .	48.97	52.91	56.65	60.43
284TC/286TC	13.13	11.25	15.56	23.18	. . .	. . .	. . .	52.41	56.35	60.09	63.87
324TC/326TC	14.13	13.38	16.94	25.25	. . .	. . .	. . .	56.10	60.03	63.77	67.55

Type UC Double & Triple Reduction Gearmotor — UCXV (Vertical) Includes Drywell

Sizes 310, 313, 314, 316 — Dimensions – Inches





SIZE	A	BB ●	G	L	LA	M	MA	N	NB	V	Low Speed Shaft		X	Y	YA	Z
											U ‡	Key				
310	17.72	13.7795	0.87	0.75-10	2.13	9.45	8.39	6.50	6.69	. . .	3.125	0.75 X 0.75 X 6.0	2.01	8-0.71	15.75	0.20
313	21.65	17.7165	1.02	1.00-8	2.64	11.42	9.96	8.07	8.27	0.41	4.000	1.00 X 1.00 X 7.50	2.36	8-0.71	19.69	0.20
314	21.65	17.7165	1.10	1.00-8	2.64	13.78	12.32	8.07	8.27	1.77	4.750	1.25 X 1.25 X 7.50	3.66	8-0.69	19.69	0.20
316	25.98	21.6535	1.26	1.25-7	3.22	15.35	14.02	9.61	9.84	3.15	5.500	1.25 X 1.25 X 9.0	3.46	8-0.87	23.62	0.24

● Size 310 tolerance is +0.0000, -0.0014; Sizes 313 & 314 tolerances is +0.0000, -0.0016; Size 316 tolerance is +0.0000, -0.0028.

‡ All sizes tolerance are +0.000, -0.025.

Frame Size	Drive Size										
	All Sizes				K (Max)						
	AB	BD	FP	K0	307	308	309	310	313	314	316
56C	5.25	6.50	7.19	9.32	27.08	29.34	32.13	. . .	. . .	. . .	. . .
142TC/145TC	5.25	6.50	7.19	12.07	29.83	32.09	34.88	. . .	. . .	. . .	. . .
182TC/184TC	5.88	9.00	8.50	15.43	34.98	37.24	40.04	. . .	. . .	. . .	. . .
213TC/215TC	7.38	9.00	10.19	16.31	35.86	38.12	40.92	43.93	47.87	51.61	55.38
254TC/256TC	9.63	10.00	12.50	19.88	. . .	. . .	. . .	48.97	52.91	56.65	60.43
284TC/286TC	13.13	11.25	15.56	23.18	. . .	. . .	. . .	52.41	56.35	60.09	63.87
324TC/326TC	14.13	13.38	16.94	25.25	. . .	. . .	. . .	56.10	60.03	63.77	67.55

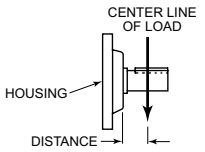
UC — Overhung Loads

High & Low Speed Shaft

Overhung load is imposed upon a shaft when a pinion, sprocket or sheave is used as a power take-off. The magnitude of the load varies with the type of take-off and its proximity to the shaft bearing. Calculate the load and check the result against the tabulated overhung load rating.

Overhung Load Formula:

$$\text{Overhung Load} = \frac{126{,}000 \times hp \times F_c \times L_f}{\text{Pitch Dia} \times rpm}$$



F_c = Load Connection Factor.

Sprocket or Timing Belt	1.00
Machined Pinion & Gear	1.25
V-Belt	1.50
Flat Belt	2.50

L_f = Load Location Factor.

For overhung loads applied at the midpoint of the usable shaft extension, Lf = 1.00

Locate the centerline of the load as close to the drive housing as practical to minimize the overhung load and increase bearing life. The above overhung load formula employs the transmitted horsepower, without Service Factor, providing the overloads, starting loads, and brake capacities do not exceed the amounts listed in Basic Information on page 3.

Consult Factory for Higher Overhung Load Ratings — In many cases, overhung load capacity in excess of that published is available. Published ratings are based on a combination of the most unfavorable conditions of rotation, speed, direction of applied load, and drive loading. If the actual load should exceed the published capacity, refer full details to the Factory; provide complete application information, as well as direction of rotation, location and direction of applied load.

Gearmotor Overhung Load Capacity — The overhung load capacity at the low speed shaft is found in the Selection Tables on pages 14 through 22.

Gear Drive Overhung Load Capacity — The overhung load capacity at the high speed shaft and low speed shaft are found on page 26.

Example:

Gear Drive Size = 307UCFV2A40.N_, exact ratio of 40.81:1.

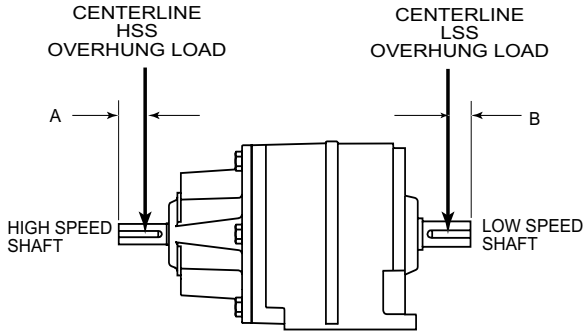
Motor = 2 hp at 1750 rpm.

Low speed shaft rpm = 1750 ÷ 40.81 = 42.88 rpm.

3" diameter sprocket mounted on low speed shaft. Centerline of sprocket overhung load is positioned at B = 2.0 inches. Calculate the overhung load as follows:

$$\text{OHL} = \frac{126{,}000 \times 2 \times 1.00 \times .98}{3 \times 42.88} = 1920$$

Allowable OHL on page 26 is 2500 lb and is satisfactory for this selection.



LSS L_f Load Location Factors** (inch)

Based on distance from centerline of load to end of shaft

Distance (Inch)	DOUBLE & TRIPLE REDUCTION Drive Size						
	307	308	309	310	313	314	316
0.0	1.42	1.46	1.47	1.58	1.60	1.56	1.57
0.5	1.30	1.35	1.38	1.49	1.53	1.49	1.51
1.0	1.18	1.25	1.28	1.40	1.45	1.42	1.45
1.5	1.07	1.14	1.19	1.32	1.38	1.36	1.40
2.0	0.98	1.03	1.10	1.23	1.31	1.29	1.34
2.5	0.92	0.97	1.01	1.15	1.24	1.22	1.28
3.0	0.87	0.93	0.97	1.06	1.16	1.15	1.22
3.5	0.82	0.89	0.93	0.99	1.09	1.09	1.16
4.0	. . .	0.84	0.90	0.96	1.02	1.02	1.11
4.5	. . .	. . .	0.86	0.93	0.98	0.98	1.05
5.0	. . .	. . .	0.82	0.90	0.95	0.96	1.00
5.5	. . .	. . .	. . .	0.87	0.93	0.94	0.98
6.0	. . .	. . .	. . .	0.83	0.90	0.92	0.96
6.5	. . .	. . .	. . .	0.80	0.87	0.89	0.94
7.0	. . .	. . .	. . .	. . .	0.85	0.87	0.92
7.5	. . .	. . .	. . .	. . .	0.82	0.85	0.90
8.0	. . .	. . .	. . .	. . .	0.79	0.83	0.88
8.5	. . .	. . .	. . .	. . .	. . .	. . .	0.86
9.0	. . .	. . .	. . .	. . .	. . .	. . .	0.84
9.5	. . .	. . .	. . .	. . .	. . .	. . .	0.82
10.0	. . .	. . .	. . .	. . .	. . .	. . .	. . .

** Interpolate for intermediate values

UC — Allowable External Loads on Low Speed Shaft

OHL_r = Over Hung Load (lbs)
M_r = Bending Moment (1,000 lb-in)
FA_r = Axial Thrust (lbs)

Double Reduction Type UCFV and UCXV

Output RPM	Load Rating	Calculated Bearing Life																					
		Nominal							50000 hr (Min SF = 1.75)							100000 hr (Min SF = 2.25)						
		307	308	309	310	313	314	316	307	308	309	310	313	314	316	307	308	309	310	313	314	316
240	OHL_r	2500	4750	5750	8550	11800	. . .	. . .	1200	1600	2100	8500	11400	. . .	. . .	1100	1400	1900	8200	9700	. . .	. . .
	M_r	7.7	13.3	19.2	40	63	. . .	. . .	2.2	3.5	5.3	28.5	47	. . .	. . .	2	3.1	4.9	27.5	40	. . .	. . .
	FA_r	3370	1550	3600	4000	4500	. . .	. . .	760	1550	1800	2100	2000	. . .	. . .	760	790	1460	1700	1800	. . .	. . .
150	OHL_r	2500	4750	5750	8550	11800	. . .	. . .	1200	1600	2100	8550	11800	. . .	. . .	1100	1400	1900	8550	11600	. . .	. . .
	M_r	7.7	13.3	19.2	42	65	. . .	. . .	2.2	3.5	5.3	35	55	. . .	. . .	2	3.1	4.9	33	48	. . .	. . .
	FA_r	3550	1550	4360	4400	4900	. . .	. . .	760	1550	2110	2250	2100	. . .	. . .	760	790	1690	1800	1900	. . .	. . .
75	OHL_r	2500	4750	5750	8550	11800	. . .	. . .	2500	2300	3900	8550	11800	. . .	. . .	2400	2300	3400	8550	11800	. . .	. . .
	M_r	7.7	13.6	19.2	42	74	. . .	. . .	4.9	4.9	10	42	70	. . .	. . .	4.2	4.9	8.8	42	60	. . .	. . .
	FA_r	3550	3550	4360	5400	5700	. . .	. . .	1620	1660	2110	2700	2250	. . .	. . .	810	1660	2020	1900	2000	. . .	. . .
50	OHL_r	2500	4750	5750	8550	11800	. . .	. . .	2500	3600	5500	8550	11800	. . .	. . .	2500	3000	4700	8550	11800	. . .	. . .
	M_r	7.7	13.6	19.2	42	74	. . .	. . .	5.3	7.8	14.1	42	79	. . .	. . .	4.5	6.6	12.1	42	68	. . .	. . .
	FA_r	3550	3550	4360	6700	7400	. . .	. . .	1680	1660	2110	3100	2600	. . .	. . .	1690	1660	2140	2600	2250	. . .	. . .
30	OHL_r	2500	4750	5750	8550	11800	. . .	. . .	2500	4700	5750	8550	11800	. . .	. . .	2500	3900	5750	8550	11800	. . .	. . .
	M_r	7.7	13.6	19.2	42	74	. . .	. . .	7.1	10.1	19	42	79	. . .	. . .	5.9	8.5	16	42	79	. . .	. . .
	FA_r	3550	3550	4360	8300	9400	. . .	. . .	1680	1730	2110	3900	3800	. . .	. . .	1690	1730	2250	3100	2350	. . .	. . .
≤15	OHL_r	. . .	. . .	. . .	8550	11800	. . .	. . .	. . .	. . .	. . .	8550	11800	. . .	. . .	. . .	. . .	. . .	8550	11800	. . .	. . .
	M_r	. . .	. . .	. . .	42	74	. . .	. . .	. . .	. . .	. . .	42	79	. . .	. . .	. . .	. . .	. . .	42	79	. . .	. . .
	FA_r	. . .	. . .	. . .	8300	10000	. . .	. . .	. . .	. . .	. . .	5200	5400	. . .	. . .	. . .	. . .	. . .	4200	4200	. . .	. . .

Triple Reduction Type UCFV and UCXV

Output RPM	Load Rating	Calculated Bearing Life																					
		Nominal							50000 hr (Min SF = 1.75)							100000 hr (Min SF = 2.25)						
		307	308	309	310	313	314	316	307	308	309	310	313	314	316	307	308	309	310	313	314	316
150	OHL_r	. . .	. . .	. . .	8550	11800	18400	18400	. . .	. . .	. . .	7800	10200	15000	18400	. . .	. . .	. . .	6900	9200	13800	18100
	M_r	. . .	. . .	. . .	31	51	77	140	. . .	. . .	. . .	26	42	62	97	. . .	. . .	. . .	23	38	57	89
	FA_r	. . .	. . .	. . .	4400	4700	8300	1000	. . .	. . .	. . .	2350	2350	4200	5400	. . .	. . .	. . .	2100	2150	3600	4800
75	OHL_r	. . .	4700	5700	8550	11800	18400	18400	. . .	2600	3900	8550	11800	18400	18400	. . .	2300	3400	8550	11800	18400	18400
	M_r	. . .	10.2	14.6	36	57	135	160	. . .	5.6	10	39	62	100	155	. . .	4.9	8.8	34	56	87	135
	FA_r	. . .	3550	4360	5300	5600	7900	12500	. . .	1660	2110	2600	2200	4300	5700	. . .	1660	2020	2350	2100	3800	5200
50	OHL_r	. . .	4700	5700	8550	11800	18400	18400	. . .	3600	5500	8550	11800	18400	18400	. . .	3000	4700	8550	11800	18400	18400
	M_r	. . .	10.2	14.6	36	57	135	160	. . .	7.8	14.1	42	79	130	195	. . .	6.6	12.1	41	68	105	165
	FA_r	. . .	3550	4360	6600	7400	10000	15000	. . .	1660	2110	3100	2100	4300	5300	. . .	1660	2140	2600	1950	3900	5100
30	OHL_r	. . .	4700	5700	8550	11800	18400	18400	. . .	4700	5700	8550	11800	18400	18400	. . .	3900	5200	8550	11800	18400	18400
	M_r	. . .	10.2	14.6	36	57	135	160	. . .	10.1	14.6	42	79	135	205	. . .	8.5	13.3	42	79	130	200
	FA_r	. . .	3550	4360	8100	9400	12000	15500	. . .	1730	2250	3700	3400	5600	7200	. . .	1730	2250	3000	2000	3900	1900
≤15	OHL_r	. . .	4700	5700	8550	11800	18400	18400	. . .	4700	5700	8550	11800	18400	18400	. . .	4700	5700	8550	11800	18400	18400
	M_r	. . .	10.2	14.6	36	57	135	160	. . .	10.2	14.6	42	79	135	205	. . .	10.2	14.6	42	79	135	205
	FA_r	. . .	3550	4360	8300	10000	12000	15500	. . .	2700	3370	4900	5100	7600	10500	. . .	1730	2700	4000	3800	6100	8100

UC — Gear Drive Horsepower & Torque Ratings

1750 High-Speed Shaft RPM/Double Reduction (Torque is in Pound-Inches at Low-Speed Shaft)

Ratio Code	Approx. L.S. Shaft rpm	Horsepower							Torque						
		Drive Size							Drive Size						
		307	308	309	310	313	314	316	307	308	309	310	313	314	316
5.6	**313**	23.3	38.7	70.8	133.1	252.7	. . .	. . .	4602	7523	13895	26550	51330	. . .	. . .
6.3	**278**	21.3	37.0	65.7	122.9	238.8	. . .	. . .	4868	8054	14868	29205	54870	. . .	. . .
7.1	**246**	20.0	34.6	62.4	121.3	220.6	. . .	. . .	5133	8673	15930	30975	57525	. . .	. . .
8.0	**219**	18.4	32.7	60.9	108.0	211.8	. . .	. . .	5399	9293	17169	31860	60180	. . .	. . .
9.0	**194**	17.7	31.3	57.5	101.9	193.9	. . .	. . .	5708	10001	18408	33630	62835	. . .	. . .
10.	**175**	16.2	29.2	55.1	96.9	181.9	. . .	. . .	6018	10709	19824	34515	64605	. . .	. . .
11.	**156**	15.5	28.4	53.1	88.2	158.1	. . .	. . .	6372	11505	21240	35400	64605	. . .	. . .
12.	**140**	14.0	25.8	46.7	79.8	143.2	. . .	. . .	6372	11505	21240	36285	64605	. . .	. . .
14.	**125**	13.0	24.7	43.2	73.2	127.4	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
16.	**109**	11.1	22.3	39.0	63.9	114.5	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
18.	**97**	10.4	19.4	33.9	55.1	102.2	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
20.	**88**	9.1	16.6	30.0	49.6	90.5	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
22.	**78**	8.0	15.5	26.4	46.5	80.4	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
25.	**70**	7.4	13.8	24.1	41.8	69.7	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
28.	**63**	6.4	12.1	21.0	36.8	63.8	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
32.	**56**	5.8	11.2	19.4	33.7	58.8	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
36.	**49**	4.8	9.7	16.4	29.5	49.8	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
40.	**44**	4.3	8.8	14.7	27.0	45.1	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
45.	**39**	3.9	7.4	13.2	22.9	37.2	. . .	. . .	6372	12390	21240	36285	59295	. . .	. . .
50.	**35**	3.5	6.6	. . .	20.3	. . .	. . .	. . .	6372	12390	. . .	35400	. . .	. . .	. . .
56.	**31**	. . .	. . .	. . .	16.9	. . .	. . .	. . .	. . .	. . .	. . .	32745	. . .	. . .	. . .
63.	**28**	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

1750 High-Speed Shaft RPM/Triple Reduction (Torque is in Pound-Inches at Low-Speed Shaft)

Ratio Code	Approx. L.S. Shaft rpm	Horsepower							Torque						
		Drive Size							Drive Size						
		307	308	309	310	313	314	316	307	308	309	310	313	314	316
12.	**140**	. . .	. . .	. . .	. . .	. . .	266.0	. . .	. . .	. . .	. . .	. . .	. . .	119476	. . .
14.	**125**	. . .	. . .	. . .	. . .	. . .	252.5	. . .	. . .	. . .	. . .	. . .	. . .	128326	. . .
16.	**109**	. . .	. . .	. . .	. . .	. . .	230.5	. . .	. . .	. . .	. . .	. . .	. . .	132751	. . .
18.	**97**	. . .	. . .	. . .	. . .	. . .	203.2	. . .	. . .	. . .	. . .	. . .	. . .	132751	. . .
20.	**88**	. . .	. . .	. . .	55.4	112.7	186.4	268.1	. . .	. . .	. . .	39825	79650	132751	190276
22.	**80**	. . .	. . .	. . .	49.9	99.5	163.5	253.3	. . .	. . .	. . .	39825	79650	132751	203551
25.	**70**	. . .	. . .	. . .	42.8	87.9	149.3	233.4	. . .	. . .	. . .	40710	79650	132751	212401
28.	**63**	. . .	13.8	22.7	41.6	77.4	129.7	214.2	. . .	13275	22125	42480	79650	132751	221251
32.	**56**	. . .	13.1	20.8	37.5	71.1	117.5	196.6	. . .	14160	23010	44250	79650	132751	221251
36.	**49**	. . .	11.4	20.0	33.5	62.3	104.6	172.3	. . .	14160	24780	44250	79650	132751	221251
40.	**44**	. . .	10.4	18.0	31.1	56.9	93.9	157.4	. . .	14160	24780	44250	79650	132751	221251
45.	**39**	. . .	9.4	15.8	27.6	49.4	83.8	136.7	. . .	14160	24780	44250	79650	132751	221251
50.	**35**	. . .	8.4	14.6	24.3	44.8	74.2	123.9	. . .	14160	24780	44250	79650	132751	221251
56.	**31**	. . .	7.5	13.2	22.3	39.8	66.0	110.2	. . .	14160	24780	44250	79650	132751	221251
63.	**28**	. . .	6.6	11.5	19.5	35.8	57.2	99.0	. . .	14160	24780	44250	79650	132751	221251
71.	**25**	. . .	5.6	10.2	16.8	31.9	52.3	88.4	. . .	14160	24780	44250	79650	132751	221251
80.	**22**	. . .	5.2	8.9	15.1	28.3	48.3	78.3	. . .	14160	24780	44250	79650	132751	221251
90.	**19**	. . .	4.7	8.1	14.2	25.1	40.9	69.6	. . .	14160	24780	44250	79650	132751	221251
100	**18**	. . .	4.1	7.1	12.7	21.8	37.0	60.3	. . .	14160	24780	44250	79650	132751	221251
112	**16**	. . .	3.8	6.5	11.2	19.9	33.3	54.4	. . .	14160	24780	44250	79650	132751	221251
125	**14**	. . .	3.3	5.5	10.3	18.4	. . .	50.9	. . .	14160	24780	44250	79650	. . .	221251
140	**13**	. . .	3.0	5.0	9.0	15.6	. . .	43.1	. . .	14160	24780	44250	79650	. . .	221251
160	**11**	. . .	2.5	4.5	8.2	14.1	. . .	39.0	. . .	14160	24780	44250	79650	. . .	221251
180	**10**	. . .	2.2	. . .	7.0	12.7	. . .	35.1	. . .	14160	. . .	44250	79650	. . .	221251
200	**9**	. . .	. . .	. . .	6.3	. . .	. . .	. . .	. . .	. . .	. . .	44250	. . .	. . .	. . .
224	**8**	. . .	. . .	. . .	5.7	. . .	. . .	. . .	. . .	. . .	. . .	44250	. . .	. . .	. . .

UC — Gear Drive Horsepower & Torque Ratings

1430 High-Speed Shaft RPM/Double Reduction (Torque is in Pound-Inches at Low-Speed Shaft)

Ratio Code	Approx. L.S. Shaft rpm	Horsepower							Torque						
		Drive Size							Drive Size						
		307	308	309	310	313	314	316	307	308	309	310	313	314	316
5.6	**313**	19.1	31.6	57.8	108.7	206.5	. . .	. . .	4602	7523	13895	26550	51330	. . .	. . .
6.3	**278**	17.4	30.2	53.7	100.4	195.1	. . .	. . .	4868	8054	14868	29205	54870	. . .	. . .
7.1	**246**	16.4	28.2	51.0	99.1	180.3	. . .	. . .	5133	8673	15930	30975	57525	. . .	. . .
8.0	**219**	15.0	26.7	49.8	88.3	173.1	. . .	. . .	5399	9293	17169	31860	60180	. . .	. . .
9.0	**194**	14.5	25.6	47.0	83.3	158.4	. . .	. . .	5708	10001	18408	33630	62835	. . .	. . .
10.	**175**	13.2	23.9	45.0	79.2	148.7	. . .	. . .	6018	10709	19824	34515	64605	. . .	. . .
11.	**156**	12.7	23.2	43.4	72.1	129.2	. . .	. . .	6372	11505	21240	35400	64605	. . .	. . .
12.	**140**	11.4	21.1	38.2	65.2	117.0	. . .	. . .	6372	11505	21240	36285	64605	. . .	. . .
14.	**125**	10.7	20.2	35.3	59.8	104.1	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
16.	**109**	9.1	18.2	31.9	52.2	93.5	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
18.	**97**	8.5	15.9	27.7	45.0	83.5	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
20.	**88**	7.4	13.5	24.6	40.5	73.9	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
22.	**78**	6.6	12.6	21.6	38.0	65.7	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
25.	**70**	6.0	11.3	19.7	34.1	57.0	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
28.	**63**	5.2	9.9	17.1	30.1	52.1	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
32.	**56**	4.7	9.1	15.8	27.6	48.1	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
36.	**49**	3.9	7.9	13.4	24.1	40.7	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
40.	**44**	3.5	7.2	12.0	22.0	36.9	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
45.	**39**	3.2	6.0	10.8	18.7	30.4	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
50.	**35**	2.9	5.4	. . .	16.6	. . .	. . .	. . .	6372	12390	. . .	35400	. . .	. . .	. . .
56.	**31**	. . .	. . .	. . .	13.8	. . .	. . .	. . .	. . .	. . .	. . .	32745	. . .	. . .	. . .
63.	**28**	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

1430 High-Speed Shaft RPM/Triple Reduction (Torque is in Pound-Inches at Low-Speed Shaft)

Ratio Code	Approx. L.S. Shaft rpm	Horsepower							Torque						
		Drive Size							Drive Size						
		307	308	309	310	313	314	316	307	308	309	310	313	314	316
12.	**114**	. . .	. . .	. . .	. . .	. . .	217.4	. . .	. . .	. . .	. . .	. . .	. . .	119476	. . .
14.	**102**	. . .	. . .	. . .	. . .	. . .	206.4	. . .	. . .	. . .	. . .	. . .	. . .	128326	. . .
16.	**89**	. . .	. . .	. . .	. . .	. . .	188.4	. . .	. . .	. . .	. . .	. . .	. . .	132751	. . .
18.	**79**	. . .	. . .	. . .	. . .	. . .	166.0	. . .	. . .	. . .	. . .	. . .	. . .	132751	. . .
20.	**72**	. . .	. . .	. . .	45.3	92.1	152.4	219.0	. . .	. . .	. . .	44250	79650	132751	190276
22.	**64**	. . .	. . .	. . .	40.8	81.3	133.6	207.0	. . .	. . .	. . .	39825	79650	132751	203551
25.	**57**	. . .	. . .	. . .	35.0	71.8	122.0	190.7	. . .	. . .	. . .	44250	79650	132751	212401
28.	**51**	. . .	11.3	18.6	34.0	63.3	105.9	175.0	. . .	14160	22125	44250	79650	132751	221251
32.	**45**	. . .	10.7	17.0	30.6	58.1	96.0	160.6	. . .	14160	23010	44250	79650	132751	221251
36.	**40**	. . .	9.4	16.3	27.4	50.9	85.4	140.8	. . .	14160	24780	44250	79650	132751	221251
40.	**36**	. . .	8.5	14.7	25.4	46.5	76.7	128.6	. . .	14160	24780	44250	79650	132751	221251
45.	**32**	. . .	7.7	12.9	22.5	40.4	68.5	111.7	. . .	14160	24780	44250	79650	132751	221251
50.	**29**	. . .	6.8	11.9	19.9	36.6	60.7	101.2	. . .	14160	24780	44250	79650	132751	221251
56.	**26**	. . .	6.2	10.8	18.2	32.6	53.9	90.1	. . .	14160	24780	44250	79650	132751	221251
63.	**23**	. . .	5.4	9.4	15.9	29.2	46.7	80.9	. . .	14160	24780	44250	79650	132751	221251
71.	**20**	. . .	4.6	8.3	13.7	26.1	42.8	72.2	. . .	14160	24780	44250	79650	132751	221251
80.	**18**	. . .	4.3	7.3	12.4	23.1	39.4	64.0	. . .	14160	24780	44250	79650	132751	221251
90.	**16**	. . .	3.8	6.6	11.6	20.5	33.4	56.8	. . .	14160	24780	44250	79650	132751	221251
100	**14**	. . .	3.4	5.8	10.4	17.8	30.3	49.3	. . .	14160	24780	44250	79650	132751	221251
112	**13**	. . .	3.1	5.3	9.2	16.3	27.2	36.9	. . .	14160	24780	44250	79650	132751	221251
125	**11**	. . .	2.7	4.5	8.4	15.0	. . .	41.6	. . .	14160	24780	44250	79650	. . .	221251
140	**10**	. . .	2.4	4.1	7.3	12.7	. . .	35.2	. . .	14160	24780	44250	79650	. . .	221251
160	**9**	. . .	2.0	3.7	6.7	11.5	. . .	31.9	. . .	14160	24780	44250	79650	. . .	221251
180	**8**	. . .	1.8	. . .	5.7	10.4	. . .	28.7	. . .	14160	. . .	44250	79650	. . .	221251
200	**7**	. . .	. . .	. . .	5.2	. . .	. . .	. . .	. . .	. . .	. . .	44250	. . .	. . .	. . .
224	**6**	. . .	. . .	. . .	4.7	. . .	. . .	. . .	. . .	. . .	. . .	44250	. . .	. . .	. . .

UC — Gear Drive Horsepower & Torque Ratings

1170 High-Speed Shaft RPM/Double Reduction (Torque is in Pound-Inches at Low-Speed Shaft)

Ratio Code	Approx. L.S. Shaft rpm	Horsepower							Torque						
		Drive Size							Drive Size						
		307	308	309	310	313	314	316	307	308	309	310	313	314	316
5.6	**313**	15.6	25.9	47.3	89.0	119.4	. . .	. . .	4602	7523	13895	26550	36285	. . .	. . .
6.3	**278**	14.2	24.7	44.0	82.1	115.9	. . .	. . .	4868	8054	14868	29205	39825	. . .	. . .
7.1	**246**	13.4	23.1	41.7	81.1	113.5	. . .	. . .	5133	8673	15930	30975	44250	. . .	. . .
8.0	**219**	12.3	21.8	40.7	72.2	110.4	. . .	. . .	5399	9293	17169	31860	46905	. . .	. . .
9.0	**194**	11.9	20.9	38.4	68.2	129.6	. . .	. . .	5708	10001	18408	33630	62835	. . .	. . .
10.	**175**	10.8	19.5	36.8	64.8	121.6	. . .	. . .	6018	10709	19824	34515	64605	. . .	. . .
11.	**156**	10.4	19.0	35.5	59.0	105.7	. . .	. . .	6372	11505	21240	35400	64605	. . .	. . .
12.	**140**	9.3	17.3	31.2	53.4	95.7	. . .	. . .	6372	11505	21240	36285	64605	. . .	. . .
14.	**125**	8.7	16.5	28.9	49.0	85.2	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
16.	**109**	7.5	14.9	26.1	42.7	76.5	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
18.	**97**	6.9	13.0	22.7	36.8	68.3	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
20.	**88**	6.1	11.1	20.1	33.2	60.5	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
22.	**78**	5.4	10.3	17.6	31.1	53.8	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
25.	**70**	4.9	9.3	16.1	27.9	46.6	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
28.	**63**	4.3	8.1	14.0	24.6	42.6	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
32.	**56**	3.9	7.5	12.9	22.6	39.3	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
36.	**49**	3.2	6.5	11.0	19.7	33.3	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
40.	**44**	2.9	5.9	9.8	18.0	30.2	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
45.	**39**	2.6	4.9	8.8	15.3	27.1	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
50.	**35**	2.4	4.4	. . .	13.6	. . .	. . .	. . .	6372	12390	. . .	35400	. . .	. . .	. . .
56.	**31**	. . .	. . .	. . .	11.3	. . .	. . .	. . .	. . .	. . .	. . .	32745	. . .	. . .	. . .
63.	**28**	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

1170 High-Speed Shaft RPM/Triple Reduction (Torque is in Pound-Inches at Low-Speed Shaft)

Ratio Code	Approx. L.S. Shaft rpm	Horsepower							Torque						
		Drive Size							Drive Size						
		307	308	309	310	313	314	316	307	308	309	310	313	314	316
12.	**94**	. . .	. . .	. . .	. . .	. . .	177.9	. . .	. . .	. . .	. . .	. . .	. . .	119476	. . .
14.	**84**	. . .	. . .	. . .	. . .	. . .	168.8	. . .	. . .	. . .	. . .	. . .	. . .	128326	. . .
16.	**73**	. . .	. . .	. . .	. . .	. . .	154.1	. . .	. . .	. . .	. . .	. . .	. . .	132751	. . .
18.	**65**	. . .	. . .	. . .	. . .	. . .	135.9	. . .	. . .	. . .	. . .	. . .	. . .	132751	. . .
20.	**59**	. . .	. . .	. . .	41.2	75.3	124.7	179.2	. . .	. . .	. . .	44250	79650	132751	190276
22.	**52**	. . .	. . .	. . .	37.1	66.6	109.3	173.1	. . .	. . .	. . .	44250	79650	132751	207976
25.	**47**	. . .	. . .	. . .	31.1	58.7	99.8	156.0	. . .	. . .	. . .	44250	79650	132751	212401
28.	**42**	. . .	9.9	15.2	29.0	51.8	86.7	143.2	. . .	14160	22125	44250	79650	132751	221251
32.	**37**	. . .	8.8	13.9	25.1	47.5	78.6	131.4	. . .	14160	23010	44250	79650	132751	221251
36.	**33**	. . .	7.7	13.3	22.4	41.7	69.9	115.2	. . .	14160	24780	44250	79650	132751	221251
40.	**29**	. . .	6.9	12.0	20.8	38.0	62.8	105.2	. . .	14160	24780	44250	79650	132751	221251
45.	**26**	. . .	6.3	10.5	18.4	33.0	56.0	91.4	. . .	14160	24780	44250	79650	132751	221251
50.	**23**	. . .	5.6	9.8	16.3	29.9	49.6	82.8	. . .	14160	24780	44250	79650	132751	221251
56.	**21**	. . .	5.0	8.8	14.9	26.6	44.1	73.7	. . .	14160	24780	44250	79650	132751	221251
63.	**19**	. . .	4.4	7.7	13.0	23.9	38.2	66.2	. . .	14160	24780	44250	79650	132751	221251
71.	**16**	. . .	3.8	6.8	11.2	21.4	35.0	59.1	. . .	14160	24780	44250	79650	132751	221251
80.	**15**	. . .	3.5	6.0	10.1	18.9	32.3	52.3	. . .	14160	24780	44250	79650	132751	221251
90.	**13**	. . .	3.1	5.4	9.5	16.8	27.3	46.5	. . .	14160	24780	44250	79650	132751	221251
100	**12**	. . .	2.8	4.7	8.5	14.6	24.8	40.3	. . .	14160	24780	44250	79650	132751	221251
112	**10**	. . .	2.5	4.4	7.5	13.3	22.3	36.9	. . .	14160	24780	44250	79650	132751	221251
125	**9**	. . .	2.2	3.7	6.9	12.3	. . .	34.0	. . .	14160	24780	44250	79650	. . .	221251
140	**8**	. . .	2.0	3.3	6.0	10.4	. . .	28.8	. . .	14160	24780	44250	79650	. . .	221251
160	**7**	. . .	1.7	3.0	5.5	9.4	. . .	26.1	. . .	14160	24780	44250	79650	. . .	221251
180	**7**	. . .	1.5	. . .	4.7	8.5	. . .	23.5	. . .	14160	. . .	44250	79650	. . .	221251
200	**6**	. . .	. . .	. . .	4.2	. . .	. . .	. . .	. . .	. . .	. . .	44250	. . .	. . .	. . .
224	**5**	. . .	. . .	. . .	3.8	. . .	. . .	. . .	. . .	. . .	. . .	44250	. . .	. . .	. . .

UC — Gear Drive Horsepower & Torque Ratings

870 High-Speed Shaft RPM/Double Reduction (Torque is in Pound-Inches at Low-Speed Shaft)

Ratio Code	Approx. L.S. Shaft rpm	Horsepower							Torque						
		Drive Size							Drive Size						
		307	308	309	310	313	314	316	307	308	309	310	313	314	316
5.6	**313**	11.6	19.2	35.2	66.2	125.6	. . .	. . .	4602	7523	13895	26550	51330	. . .	. . .
6.3	**278**	10.6	18.4	32.7	61.1	118.7	. . .	. . .	4868	8054	14868	29205	54870	. . .	. . .
7.1	**246**	10.0	17.2	31.0	60.3	109.7	. . .	. . .	5133	8673	15930	30975	57525	. . .	. . .
8.0	**219**	9.1	16.2	30.3	53.7	105.3	. . .	. . .	5399	9293	17169	31860	60180	. . .	. . .
9.0	**194**	8.8	15.5	28.6	50.7	96.4	. . .	. . .	5708	10001	18408	33630	62835	. . .	. . .
10.	**175**	8.0	14.5	27.4	48.2	90.4	. . .	. . .	6018	10709	19824	34515	64605	. . .	. . .
11.	**156**	7.7	14.1	26.4	43.9	78.6	. . .	. . .	6372	11505	21240	35400	64605	. . .	. . .
12.	**140**	6.9	12.8	23.2	39.7	71.2	. . .	. . .	6372	11505	21240	36285	64605	. . .	. . .
14.	**125**	6.5	12.3	21.5	36.4	63.3	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
16.	**109**	5.5	11.1	19.4	31.8	56.9	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
18.	**97**	5.1	9.7	16.9	27.4	50.8	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
20.	**88**	4.5	8.2	14.9	24.7	45.0	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
22.	**78**	4.0	7.7	13.1	23.1	40.0	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
25.	**70**	3.7	6.9	12.0	20.8	34.7	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
28.	**63**	3.2	6.0	10.4	18.3	31.7	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
32.	**56**	2.9	5.6	9.6	16.8	29.2	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
36.	**49**	2.4	4.8	8.2	14.7	24.8	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
40.	**44**	2.2	4.4	7.3	13.4	22.4	. . .	. . .	6372	12390	21240	36285	64605	. . .	. . .
45.	**39**	1.9	3.7	6.6	11.4	20.2	. . .	. . .	6372	12390	21240	36285	59295	. . .	. . .
50.	**35**	1.8	3.3	. . .	10.1	. . .	. . .	. . .	6372	12390	. . .	35400	. . .	. . .	. . .
56.	**31**	. . .	. . .	. . .	8.4	. . .	. . .	. . .	. . .	. . .	. . .	32745	. . .	. . .	. . .
63.	**28**	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

870 High-Speed Shaft RPM/Triple Reduction (Torque is in Pound-Inches at Low-Speed Shaft)

Ratio Code	Approx. L.S. Shaft rpm	Horsepower							Torque						
		Drive Size							Drive Size						
		307	308	309	310	313	314	316	307	308	309	310	313	314	316
12.	**70**	. . .	. . .	. . .	. . .	. . .	132.3	. . .	. . .	. . .	. . .	. . .	. . .	119476	. . .
14.	**62**	. . .	. . .	. . .	. . .	. . .	125.5	. . .	. . .	. . .	. . .	. . .	. . .	128326	. . .
16.	**54**	. . .	. . .	. . .	. . .	. . .	114.6	. . .	. . .	. . .	. . .	. . .	. . .	132751	. . .
18.	**48**	. . .	. . .	. . .	. . .	. . .	101.0	. . .	. . .	. . .	. . .	. . .	. . .	132751	. . .
20.	**44**	. . .	. . .	. . .	30.6	56.0	92.7	133.3	. . .	. . .	. . .	39825	79650	132751	190276
22.	**39**	. . .	. . .	. . .	27.6	49.5	81.3	125.9	. . .	. . .	. . .	44250	79650	132751	203551
25.	**35**	. . .	. . .	. . .	23.1	43.7	74.2	116.0	. . .	. . .	. . .	40710	79650	132751	212401
28.	**31**	. . .	7.3	11.3	21.5	38.5	64.5	106.5	. . .	13275	22125	42480	79650	132751	221251
32.	**28**	. . .	6.5	10.4	18.6	35.3	58.4	97.7	. . .	14160	23010	44250	79650	132751	221251
36.	**25**	. . .	5.7	9.9	16.7	31.0	52.0	85.7	. . .	14160	24780	44250	79650	132751	221251
40.	**22**	. . .	5.2	8.9	15.4	28.3	46.7	78.3	. . .	14160	24780	44250	79650	132751	221251
45.	**19**	. . .	4.7	7.8	13.7	24.6	41.7	67.9	. . .	14160	24780	44250	79650	132751	221251
50.	**17**	. . .	4.2	7.3	12.1	22.3	36.9	61.6	. . .	14160	24780	44250	79650	132751	221251
56.	**16**	. . .	3.8	6.6	11.1	19.8	32.8	54.8	. . .	14160	24780	44250	79650	132751	221251
63.	**14**	. . .	3.3	5.7	9.7	17.8	28.4	49.2	. . .	14160	24780	44250	79650	132751	221251
71.	**12**	. . .	2.8	5.0	8.4	15.9	26.0	43.9	. . .	14160	24780	44250	79650	132751	221251
80.	**11**	. . .	2.6	4.4	7.5	14.1	24.0	38.9	. . .	14160	24780	44250	79650	132751	221251
90.	**10**	. . .	2.3	4.0	7.0	12.5	20.3	34.6	. . .	14160	24780	44250	79650	132751	221251
100	**9**	. . .	2.0	3.5	6.3	10.8	18.4	30.0	. . .	14160	24780	44250	79650	132751	221251
112	**8**	. . .	1.9	3.3	5.6	9.9	16.5	27.4	. . .	14160	24780	44250	79650	132751	221251
125	**7**	. . .	1.6	2.8	5.1	9.1	. . .	25.3	. . .	14160	24780	44250	79650	. . .	221251
140	**6**	. . .	1.5	2.5	4.5	7.7	. . .	21.4	. . .	14160	24780	44250	79650	. . .	221251
160	**5**	. . .	1.2	2.2	4.1	7.0	. . .	19.4	. . .	14160	24780	44250	79650	. . .	221251
180	**5**	. . .	1.1	. . .	3.5	6.3	. . .	17.4	. . .	14160	. . .	44250	79650	. . .	221251
200	**4**	. . .	. . .	. . .	3.2	. . .	. . .	. . .	. . .	. . .	. . .	44250	. . .	. . .	. . .
224	**4**	. . .	. . .	. . .	2.8	. . .	. . .	. . .	. . .	. . .	. . .	44250	. . .	. . .	. . .

Thermal Ratings (HP)

Thermal ratings are a measure of the units ability to dissipate heat, if they are exceeded the lubricant may break down resulting in premature gear failure.

Thermal ratings are based on an ambient temperature of 68ºF, when units are to operate at other ambient temperatures the thermal HP ratings must be multiplied by the following factors.

UC Thermal Ratings & Thermal Application Correction Factors

The thermal ratings are a measure of the gear drive's ability to dissipate heat. Checking the thermal rating is extremely important, for if the drive creates heat faster than it can be dissipated, severe damage may occur.

Quick Selection tables for gearmotor drives are based on mechanical ratings only, while horsepower and torque tables show both mechanical and thermal ratings. It is important, however, that for both types of drives, the thermal ratings are checked to ensure that overheating does not occur.

Catalog thermal ratings are based on the drive being mounted in Position #8, operating continuously in an environment with an ambient temperature equal to 68°F (20°C). The thermal rating is affected by ambient air temperature, duty cycle and mounting position. To account for these varying conditions, the application correction factors given in **Table 5** and **Table 5A** should be applied to the catalog thermal ratings using the following formula:

$P_{TA} = B_1 \times B_2 \times P_T$ where:

P_{TA} = Application Adjusted Thermal Power Rating

P_T = Basic Thermal Power Rating (Below)

B_1 = Ambient Air Temperature Factor, **Table 5**

B_2 = Duty Cycle Factor, **Table 5A**

Table 5 — Ambient Adjustment Factor — B_1

Drive Size	Ambient Temperature °F							
All Units	– 4	14	32	50	68	86	104	122
	1.57	1.43	1.29	1.14	1.0	0.86	0.71	0.5

Table 5A — Duty Cycle Factor ■ — B_2

DriveOutput rpm	% Operating Time Per Hour				
	100	80	60	40	20
0 to 10	1.00	1.18	1.45	1.72	2.38
>10 to 25	1.00	1.16	1.39	1.64	2.22
>25 to 50	1.00	1.14	1.31	1.54	2.00
>50 to 100	1.00	1.08	1.19	1.33	1.64
>100 to 150	1.00	1.04	1.08	1.19	1.41
>150 to 200	1.00	1.00	1.00	1.06	1.23
>200	1.00	1.00	1.00	1.00	1.00

■ The duty cycle factor must be based on the percentage of each hour that the drive is operating. For example: A gear drive operating for 48 minutes and resting for 12 minutes every hour of the day, has an 80% duty cycle, but a drive operating for four hours and resting for four hours has a 100% duty cycle. Where % run time per hour falls between values shown above, use next higher % run time.

Double Reduction Type UCFX and UCXV Basic Thermal Horsepower Ratings

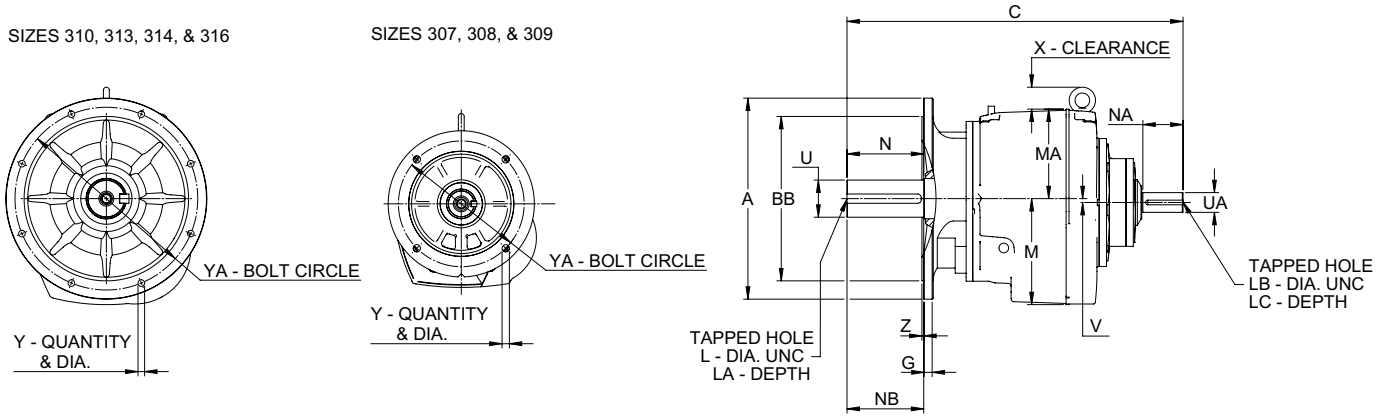
Nominal Ratio	High Speed Shaft rpm	Drive Size				
		307	308	309	310	313
2.8 to 6.3	1750	19	28	52	79	100
	1430	16	25	49	78	105
	1170	15	24	48	74	100
	870	14	23	47	72	98
7.1 to 10	1750	17	26	49	75	100
	1430	15	24	47	74	99
	1170	14	23	46	70	96
	870	13	21	44	66	91
11.2 to 16	1750	16	24	46	69	90
	1430	14	22	44	66	88
	1170	13	21	43	62	83
	870	12	20	41	58	73
18 to 25	1750	14	21	40	56	76
	1430	12	19	38	54	73
	1170	11	18	38	50	69
	870	11	18	38	46	63
28 to 50	1750	10	16	30	43	56
	1430	10	16	31	40	53
	1170	9	15	31	36	49
	870	9	15	31	35	44

Triple Reduction Type UCFV and UCXV Basic Thermal Horsepower Ratings

Nominal Ratio	High Speed Shaft rpm	Drive Size						
		307	308	309	310	313	314	316
12.5 to 18	1750	. . .	. . .	. . .	. . .	. . .	105	
	1430	. . .	. . .	. . .	. . .	. . .	105	
	1170	. . .	. . .	. . .	. . .	. . .	100	
	870	. . .	. . .	. . .	. . .	. . .	95	
20 to 28	1750	. . .	. . .	. . .	42	60	96	125
	1430	. . .	. . .	. . .	40	59	93	125
	1170	. . .	. . .	. . .	38	56	89	120
	870	. . .	. . .	. . .	35	52	83	110
31.5 to 45	1750	13	27	32	38	54	87	115
	1430	12	24	32	36	54	83	115
	1170	10	19	28	34	51	79	110
	870	7	15	25	31	47	72	100
50 to 71	1750	9	19	29	33	47	72	115
	1430	8	16	28	31	46	69	100
	1170	6	13	24	29	43	64	93
	870	5	10	17	28	39	59	87
80 to 112	1750	6	12	20	28	42	58	86
	1430	5	10	17	27	50	57	82
	1170	4	8	14	23	41	57	77
	870	4	6	10	17	30	50	75
125 to 180	1750	4	8	13	22	39	. . .	69
	1430	3	7	11	19	33	. . .	65
	1170	3	5	9	15	27	. . .	63
	870	2	4	6	11	20	. . .	54

Type UC Double Reduction Gear Drive — UCFV — Standard Input Shaft

Sizes 307, 308, 309, 310, 313, 314, 316 — Dimensions – Inches



SIZE	A	BB ●	C	G	L	LA	LB	LC	M	MA	N	NA	NB	Low Speed Shaft		High Speed Shaft		V	X	Y	YA	Z
														U ‡	Key	UA †	Key					
307	9.84	7.0866	19.19	0.47	0.625-11	1.88	0.375-16	1.38	5.63	4.53	3.39	2.36	3.54	1.750	0.375 X 0.375 X 3.00	1.125	0.250 x 0.250 x 2.00	…	1.55	4-0.49	8.46	0.16
308	11.81	9.0551	22.91	0.59	0.75-10	2.13	0.50-13	1.65	7.24	5.77	4.17	3.15	4.33	2.125	0.50 X 0.50 X 3.75	1.375	0.3125 x 0.3125 x 2.75	…	1.89	4-0.55	10.43	0.16
309	13.78	9.8425	25.67	0.71	0.75-10	2.13	0.50-13	1.65	8.86	6.69	4.92	3.15	5.12	2.500	0.625 X 0.625 X 4.5	1.375	0.3125 x 0.3125 x 2.75	…	2.24	4-0.69	11.81	0.20
310	17.72	13.7795	32.26	0.87	0.75-10	2.13	0.75-10	2.13	9.45	8.39	6.50	4.33	6.69	3.125	0.75 X 0.75 X 6.0	2.125	0.500 x 0.500 x 3.75	…	2.01	8-0.71	15.75	0.20
313	21.65	17.7165	36.20	1.02	1.00-8	2.64	0.75-10	2.13	11.42	9.96	8.07	4.33	8.27	4.000	1.00 X 1.00 X 7.50	2.125	0.500 x 0.500 x 3.75	0.41	2.36	8-0.71	19.69	0.20
314	21.65	17.7165	39.94	1.10	1.00-8	2.64	0.75-10	2.13	13.78	12.32	8.07	4.33	8.27	4.750	1.25 X 1.25 X 7.50	2.125	0.500 x 0.500 x 3.75	1.77	3.66	8-0.69	19.69	0.20
316	25.98	21.6535	43.72	1.26	1.25-7	3.22	0.75-10	2.13	15.35	14.02	9.61	4.33	9.84	5.500	1.25 X 1.25 X 9.0	2.125	0.500 x 0.500 x 3.75	3.15	3.46	8-0.87	23.62	0.24

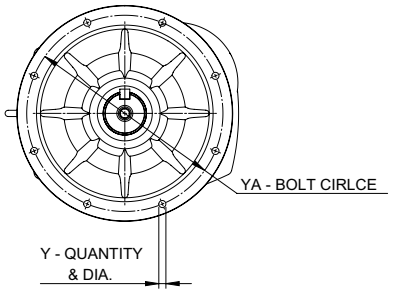
● Sizes 307 & 308 tolerances is +0.0007, -0.0005; Size 309 tolerance is +0.0000, -0.0012; Size 310 tolerance is +0.0000, -0.0014; Sizes 313 & 314 tolerances is +0.0000, -0.0016; Size 316 tolerance is +0.0000, -0.0028.

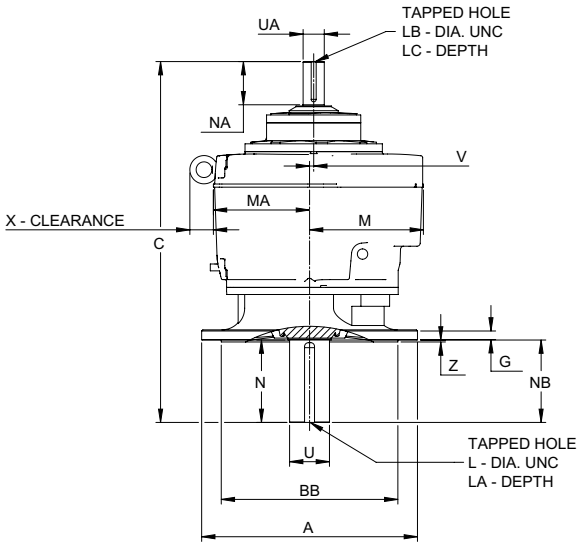
‡ All sizes tolerance are +0.000, -0.025.

† Size 307 thru 309 tolerance is +.000, -.013; Sizes 310 thru 316 tolerance is +.000, -.025.

Type UC Double Reduction Gear Drive — UCXV (Vertical) — Standard Input Shaft

Sizes 310, 313, 314, 316 — Dimensions – Inches





SIZE	A	BB ●	C	G	L	LA	LB	LC	M	MA	N	NA	NB	Low Speed Shaft		High Speed Shaft		V	X	Y	YA	Z
														U ‡	Key	UA †	Key					
310	17.72	13.7795	32.26	0.87	0.75-10	2.13	0.75-10	2.13	9.45	8.39	6.50	4.33	6.69	3.125	0.75 X 0.75 X 6.0	2.125	0.500 x 0.500 x 3.75	…	2.01	8-0.71	15.75	0.20
313	21.65	17.7165	36.20	1.02	1.00-8	2.64	0.75-10	2.13	11.42	9.96	8.07	4.33	8.27	4.000	1.00 X 1.00 X 7.50	2.125	0.500 x 0.500 x 3.75	0.41	2.36	8-0.71	19.69	0.20
314	21.65	17.7165	39.94	1.10	1.00-8	2.64	0.75-10	2.13	13.78	12.32	8.07	4.33	8.27	4.750	1.25 X 1.25 X 7.50	2.125	0.500 x 0.500 x 3.75	1.77	3.66	8-0.69	19.69	0.20
316	25.98	21.6535	43.72	1.26	1.25-7	3.22	0.75-10	2.13	15.35	14.02	9.61	4.33	9.84	5.500	1.25 X 1.25 X 9.0	2.125	0.500 x 0.500 x 3.75	3.15	3.46	8-0.87	23.62	0.24

● Size 310 tolerance is +0.0000, -0.0014; Sizes 313 & 314 tolerances is +0.0000, -0.0016; Size 316 tolerance is +0.0000, -0.0028 .

‡ All sizes tolerance are +0.000, -0.025.

† Size 307 thru 309 tolerance is +.000, -.013; Sizes 310 thru 316 tolerance is +.000, -.025.

Type UCFV and UCXV — Approximate Shipping Weights – lb ★

DRIVE SIZE	Solid Input Shaft	C-Face Input
307UCFV2	93	101
307UCFV3	93	101
308UCFV2	157	187
308UCFV3	157	187
309UCFV2	247	278
309UCFV3	247	278
310UCFV2	397	485
310UCFV3	397	485
313UCFV2	606	717
313UCFV3	606	717
314UCFV2	981	1135
314UCFV3	981	1135
316UCFV3	1444	1598
310UCXV2	397	485
310UCXV3	397	485
313UCXV2	606	717
313UCXV3	606	717
314UCXV2	981	1135
314UCXV3	981	1135
316UCXV3	1444	1598

★ All weights exclude lubricant.

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