

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

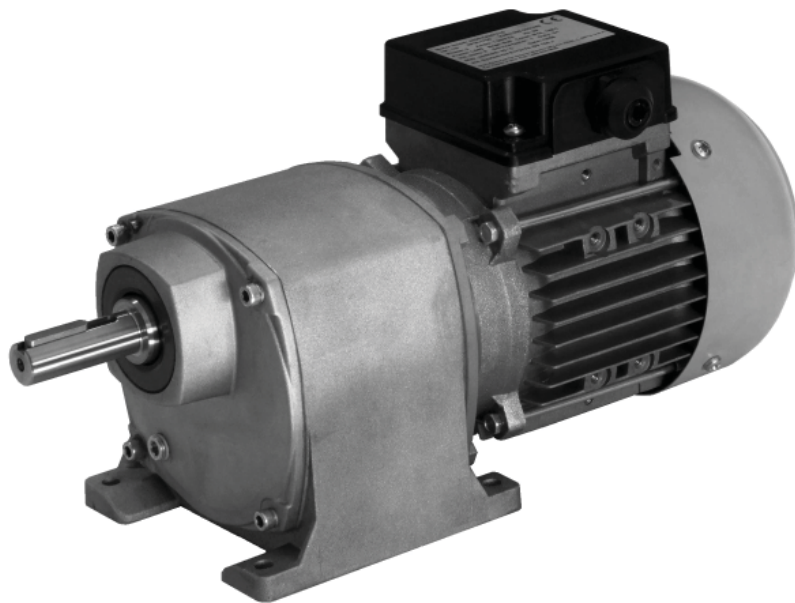
Dayton® AC Gearmotors

Description

PARALLEL SHAFT MULTIPLE REDUCTION AC GEARMOTORS

Parallel shaft single and double reduction gearmotors are designed for direct coupled or belt drive, low rpm applications such as machine tools, conveyors, feeders, vending machines, etc. The gear heads & motor bodies features cast aluminum construction with foot mounts and precision cut steel spur gears for low noise operation. The gearmotors are built with direct drive 1/6, 1/4, 1/3, 1/2 & 3/4hp, 3-Phase inverter duty motors.

Figure 1 – AC Gearmotor

E
N
G
L
I
S
HE
S
P
A
Ñ
O
LF
R
A
N
Ç
A
I
S

Dayton® AC Gearmotors

E
N
G
L
I
S
H

Unpacking

Handle cartons or crates with care to avoid dropping them and damaging the equipment. Store and unpack the carton with the correct side up. After unpacking the gearmotor, inspect carefully for any damage that may have occurred during transit. Check for loose, missing, or damaged parts. Shipping damage claims must be filed with the carrier. Check the nameplate ratings on the gearmotor to make sure you have obtained the correct unit for your power supply and application voltage, frequency (Hz), phase, output speed (rpm), and horsepower.

⚠ DANGER *Be careful not to touch overhead power lines if you use lifting equipment to handle the gearmotors. The gearmotor weight varies depending on which model it is. Employ qualified personnel, proper tools and equipment in all phases of unpacking.*

Specifications

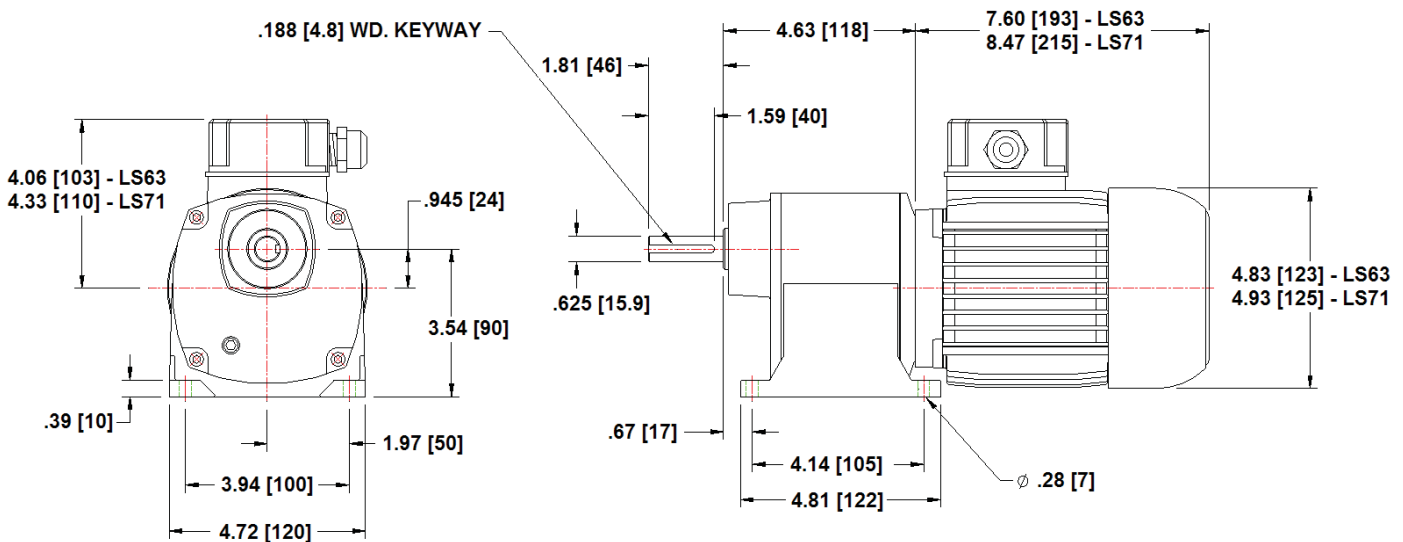
Please see specifications table on following page.

Dimensional entries are in inches (mm).

Dimensional View

Refer to the illustration below.

Figure 2. Gearmotor Dimension View



Specifications for AC Gearmotors

Grainger Model Number	Motor Frame Size	Phase	Voltage Frequency	Full Load Output Torque (inch-lbs)	Output RPM @ 60Hz	Input HP	Ratio In:Out	Motor Enclosure	F/L Amps	Overhung Load (lbs)	Agency Compliance
4RYU6	L563	3	200-230/460 @ 60Hz	336	25	1/6	71:1	TEFCA	08.2/0.55	385	UL/CSA
4RYU7	L563	3	200-230/460 @ 60Hz	282	31	1/6	56:1	TEFCA	08.2/0.55	385	UL/CSA
4RYU8	L563	3	200-230/460 @ 60Hz	311	44	1/4	40:1	TEFCA	1.2/0.75	385	UL/CSA
4RYU9	L563	3	200-230/460 @ 60Hz	250	56	1/4	32:1	TEFCA	1.2/0.75	415	UL/CSA
4RYV1	L563	3	200-230/460 @ 60Hz	203	70	1/4	25:1	TEFCA	1.2/0.75	415	UL/CSA
4RYV2	L571	3	200-230/460 @ 60Hz	377	49	1/3	36:1	TEFCA	1.5/1.0	385	UL/CSA
4RYV3	L571	3	200-230/460 @ 60Hz	271	70	1/3	25:1	TEFCA	1.5/2.0	415	UL/CSA
4RYV4	L571	3	200-230/460 @ 60Hz	218	88	1/3	20:1	TEFCA	1.5/1.0	415	UL/CSA
4RYV5	L571	3	200-230/460 @ 60Hz	299	97	1/2	18:1	TEFCA	2.0/1.3	415	UL/CSA
4RYV6	L571	3	200-230/460 @ 60Hz	234	125	1/2	14:1	TEFCA	2.0/1.3	415	UL/CSA
4RYV7	L571	3	200-230/460 @ 60Hz	189	156	1/2	11:1	TEFCA	2.0/1.3	415	UL/CSA
4RYV8	L571	3	200-230/460 @ 60Hz	283	156	3/4	11:1	TEFCA	2.8/1.8	415	UL/CSA
4RYV9	L571	3	200-230/460 @ 60Hz	229	194	3/4	9:1	TEFCA	2.8/1.8	415	UL/CSA

▲ Totally Enclosed Fan Cooled

Oil fill quantity: ~1.3 Qt. See Maintenance section for instructions.

Dayton® AC Gearmotors

General Safety Information

⚠ WARNING *High voltage and moving parts around motors and motor driven equipment can cause serious or fatal injuries. Always disconnect power source before working on a motor or its connected load. Installation must conform to all OSHA requirements and the National Electrical Code (NEC) in the United States, and all local codes.*

IMPORTANT: It is important to observe the following safety precautions to protect personnel from possible injury.

1. Be familiar with the equipment and read all instructions thoroughly before installing or working on it.
2. Be careful and follow the prescribed procedures when handling and lifting this equipment.
3. Do not install this equipment in an explosive atmosphere.
4. Avoid contact with energized circuits or rotating parts.
5. Follow all local electrical and safety codes, as well as the National Electric Code (NEC) and the Occupational Safety and Health Act (OSHA).
6. Motor must be securely and adequately grounded. This can be accomplished by wiring with a grounded, metal-clad raceway system, by using a separate ground wire connected to the bare metal of the motor frame, or other suitable means. Refer to NEC Article 250 (grounding) for additional information.
7. A qualified electrician should perform the electrical installation of this equipment.
8. Do not depend on motor control devices (motor starters, etc.) to prevent unexpected motor starting. Always disconnect power source before working on or near a motor or its connected load. If the power disconnect point is out of sight, lock it in the open position and tag it to prevent unexpected application of power.
9. Avoid touching capacitors until safe discharge procedure have been completed.
10. Be careful if touching an operating motor. It may be hot enough to hurt or injure you. At full rated voltage and load, modern motors run hot.
11. Protect the power cable: don't let it touch sharp objects, hot surfaces, oil, grease or chemicals.
12. Do not kink the power cable.
13. Make certain that the power source conforms to the requirements of your equipment.
14. Be sure output shaft key is removed before running the gearmotor without load.
15. Provide guarding for all moving parts.
16. If the application involves a holding or overhauling type of load (such as a hoist or conveyor), install a separate magnetic brake or other locking device to prevent the load from moving when the gearmotor is not running. Do not depend on gear friction to hold the load.
17. Provide proper personnel safeguards in applications where high inertia loads can cause over-speeding.
18. When cleaning electrical or electronic equipment, always use an approved non-flammable cleaning agent such as a dry cleaning solvent. Be careful about choosing and using cleaning agents. Some of them attack motor insulation, seals, finish or bearing lubricants; some are highly flammable. If using cleaning agents, make sure the area is well ventilated.
19. Avoid prolonged exposure to high noise levels from equipment.
20. To prevent accidents, be sure to guard equipment against access by children or unauthorized personnel.
21. Do not use automatic restart devices where unexpected gearmotor starting could be hazardous to personnel or equipment.
22. Wear safety glasses to protect your eyes around running machinery, especially where cover plates are removed to inspect equipment while it is running.
23. Do not permit the gearmotor load to continuously exceed the values listed for it in Specifications and Performance.
24. Store the gearmotor only in a clean, dry, indoor area, even if it is still in the original shipping container.

Models

4RYU6 - 9, 4RYV1 - 9

Installation

The gearmotor was thoroughly inspected before shipment. No further major assembly or adjustments are necessary. A minor adjustment, described in this section may be necessary.

▲ WARNING *Do not install this gearmotor in an explosive atmosphere.*

▲ WARNING *If the application involves a holding or overhauling type of load (such as a conveyor), install a separate magnetic brake or other locking device to prevent the load from moving when the gearmotor is not running. Do not depend on gear friction to hold the load.*

IMPORTANT: The gearmotor is shipped with oil installed.

Proceed with installation as follows:

1. Before mounting the gearmotor, consider the following:
 - a. Location: For maximum operating life, install the gearmotor in a cool, clean, dry and well ventilated area. Avoid installing it in a restricted area which limits the flow of cooling air over or through the motor.
 - b. Mounting position: You may mount the gearmotor in any position.

▲ WARNING *Be sure electrical power for the gearmotor is disconnected or is shut off at the disconnect switch, circuit breaker, or fuse box before proceeding.*

2. Mount the gearmotor to a rigid surface, preferably metallic, using the largest diameter bolts that will fit through the mounting holes in the base. Before tightening down the mounting bolts, make sure all four gearmotor mounting feet are touching the mounting surface at the same time. Add shims under the feet if necessary to make all four feet touch at the same time. (It may be necessary to install shims under the feet to obtain correct shaft alignment in installations where gearmotor output shaft is to be direct coupled to another shaft. Tighten mounting bolts securely.

NOTE: Factory filled with oil. Check and maintain proper oil level periodically. See Maintenance section for oil level check/fill procedure and correct type of oil to be used.

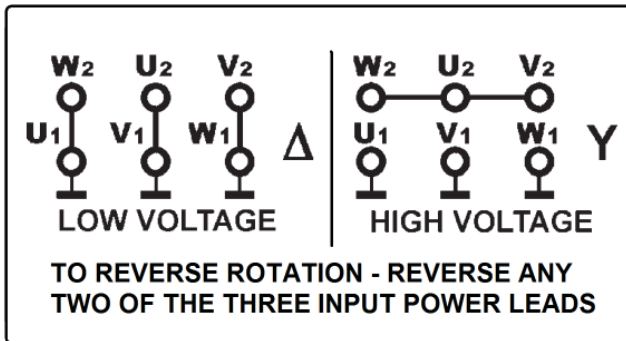
▲ WARNING *Do not remove motor fan cover guard if motor is operating. Be sure all power is disconnected before removing fan cover guard. If gearmotor is installed outdoors, make sure it is protected from the weather.*

Dayton® AC Gearmotors

ENGLISH

3. Make the electrical connections to the gearmotor. Observe these precautions:
 - a. All wiring and electrical connection must comply with the National Electrical Code and with all local electrical codes in effect.
 - b. For proper motor connections, refer to the connection diagram on the gearmotor nameplate or below. Make sure the connections are correct for the voltage to be supplied to the gearmotor, and that they will cause the gearmotor output shaft to rotate in the desired direction. To reverse the output rotation, see the connection diagrams below.

Figure 3 – Connection Diagrams



- c. Whenever possible, install a separate branch circuit capable of supplying starting and full load gearmotor current requirements with minimal voltage drop. Increase conductor size as circuit length increases. The characteristics (voltage, phase, frequency, available current, etc.) of the electrical supply being connected must conform to the requirements

shown on the gearmotor nameplate. Terminal voltage may not vary more than $\pm 10\%$ from nameplate voltage at nameplate frequency (Hz). Even slight voltage unbalance between lines on three phase models will cause gearmotor overheating. For three-phase power, voltages for all three lines must be balanced within 1%. Do not continuously exceed gearmotor nameplate current rating.

- d. Motor must be securely and adequately grounded by wiring with a grounded metallic conduit or other grounding method approved by the NEC and local codes.
- e. The manufacturer recommends (and local electrical codes may require) that a manual or magnetic

motor starter with thermal overload protection should control power to the gearmotor. When selecting thermal overload relay heaters, follow the motor starter manufacturer's recommendations.

CAUTION Do not oversize (overamperage) heaters.

WARNING Do not install an automatic reset starting device to control the gearmotor in applications where unexpected motor starting could harm personnel or equipment.

4. Attaching (coupling) the load:

NOTE: To determine output torque capacity for operating conditions other than normal 8-hour days with shock free operation, multiply the rated output torque for the gearmotor (from Specifications and Performance) by the applicable load factor listed in the Load Factor chart. Avoid shock loads.

Table 1 – Load Factors

Service	Loading		
	Uniform	Moderate Shock	Heavy Shock
LESS THAN 10 STARTS/STOPS PER DAY			
Occasional			
1/2 hour total per day	1.25	1.10	1.00
Intermittent			
2 hours total per day	1.10	1.00	0.80
8 hours per day	1.00	0.80	0.67
24 hours per day	0.80	0.67	0.57
OVER 10 STARTS/STOPS PER DAY			
Occasional			
1/2 hour total per day	1.10	1.00	0.80
Intermittent			
2 hours total per day	1.00	0.80	0.67
8 hours per day	0.80	0.67	0.57
24 hours per day	0.67	0.57	0.50

Models

4RYU6 - 9, 4RYV1 - 9

E
N
G
L
I
S
H

Overhung Loads

Sideward (radial) force on a motor output shaft is called overhung load. Driving a load through a gear, sprocket wheel or belt pulley which is mounted on the gearmotor output shaft causes overhung load on the shaft. Too much overhung load can break the shaft or cause bearings to fail prematurely. Calculate the amount of overhung load which the gearmotor will receive in your installation as follows.

Table 2 – Overhung Load Calculations

Overhung Load Formula	
	$\frac{(2 \times T) \times (C \times L)}{D}$
T	Full load torque of gearmotor in in-lbs from Specifications and Performance section
C	Coupling factor from Coupling Factors Chart, accounting for type of coupling
D	Pitch diameter in inches of coupling being mounted on gearmotor output shaft
L	Leverage factor from Leverage Factors Chart accounting for position of coupling along length of gearmotor output shaft

Table 3 – Coupling Factors

Coupling Factors	
Coupling Type	Factor
Chain sprocket wheel	1.00
Gear (pinion)	1.25
V-belt pulley	1.50
Flat belt pulley	2.50

Table 4 – Leverage Factors

Leverage Factors	
Coupling Location	Factor
End of shaft extension	0.8
Center of shaft extension	1.0
Next to shaft extension shoulder	1.2

After calculating the amount of overhung load expected in your installation, compare it to the overhung load rating (limit) listed for your gearmotor in Specifications & Performance. If the expected amount of overhung load is higher than the specified limit, you must change a component or the location of a component in your installation to bring the overhung load within the limit. To increase the operating life of the gearmotor bearings, design your installation to reduce overhung load as much as possible.

- a. On direct-coupled installations, carefully check shaft and coupling alignment while bolting down gearmotor. Shim as required. Do not depend on a flexible coupling to compensate for misalignment.
- b. To prevent bearing damage, do not strike output shaft with hammer or other tool.

Operation

⚠ WARNING *High voltage and rotating parts can cause serious or fatal injury. For safety, only qualified personnel should operate the gearmotor. For personnel and equipment protection, Observe all precautions given in General Safety Information.*

Apply the specified electrical power to the gearmotor to operate it. (Gearmotor nameplate and Specifications and Performance sections specify correct voltage, frequency and phase.) Do not overload the gearmotor. Observe the Full Load Amp limit given in the Specifications and Performance and the Load Factor charts in the Installation section.

IMPORTANT: Stop gearmotor and have it checked if you notice excessive noise, vibration, or heating, or if you notice operating speed slowing down.

IMPORTANT: The gearmotor is shipped with oil. Make sure the proper amount of lubricant is in the gearcase relative to the mounting position before operation.

Maintenance

⚠ WARNING *Make sure that the electrical power is disconnected before attempting to inspect or service the gearmotor. If the power disconnect point is out of sight, lock it in the open position and tag it to prevent unexpected power turn on. Only qualified personnel should trouble shoot and maintain the gearmotor. Wear safety glasses when inspecting operating equipment.*

⚠ DANGER *Any repair required on motor must be performed by a UL authorized service shop. Failure to comply will void UL listing and may result in personal injury or death.*

⚠ DANGER *Before performing any maintenance, disconnect power and allow motor to come to a complete stop.*

Dayton® AC Gearmotors

GENERAL

Properly applied and installed gearmotors operate for long periods with minimal maintenance. Dirt accumulation can cause motor overheating and a fire hazard. Clean the motor with an air jet; wear eye protection. Inspect periodically. Check for dirt accumulation; unusual noise or vibration; overheating; worn or loose couplings, sheaves and belts; high motor current; poor wiring or overheating connections; loose mounting bolts or guards; and worn motor starter contacts.

To extend the gearmotor operating life, keep the gearmotor clean and make sure that nothing obstructs the flow of cooling air over or through it. Use only approved cleaning agents, such as dry cleaning solvent when cleaning electrical equipment and components. If the gearmotor is installed outdoors, protect it from the weather.

The gearmotor requires oil changes periodically, as described in Lubrication. Periodically check that the gearmotor mounting hardware has not loosened, that electrical connections are secure and not shorted, and that wiring insulation is sound.

PARTS REPLACEMENT

Gearmotor parts that may require replacing are listed on the chart in this publication. Complete gearbox assemblies and motors are listed as well as specific parts and kits.

If you disassemble the gearmotor, note the location and size of shims as you disassemble so you can insert them in the right places when you re-assemble. All shafts should be shimmed to maintain 0.001 to 0.004 inch endplay.

See Replacement Parts List for component parts numbers and for ordering instructions.

LUBRICATION

CAUTION *The gearmotor is shipped with oil. Be sure to check the gearcase oil level as instructed before operating.*

Careful attention to maintaining the correct amount of the correct type of oil in the gearcase will help lengthen gearmotor operating life.

Select the gearcase oil AGMA number from the chart. Note that two different oil weights (viscosities) represented by AGMA numbers are recommended. Select the correct AGMA number for the air temperature in which the gearmotor will operate. (Air temperature range for each AGMA number is provided in the column heading in the chart.)

After the first week of gearmotor operation, and twice yearly after that, completely drain the gearcase oil and refill with new oil selected from the chart. Remove the oil fill/check plug and fill the gearcase to a level approximately 1/2" below the inside surface of the output cover when the gearmotor is oriented with the output shaft pointing up. Check gearcase oil level periodically. Maintain correct level as directed. Refer to the recommended oil chart and obtain by AGMA number.

Table 5 – Lubricants

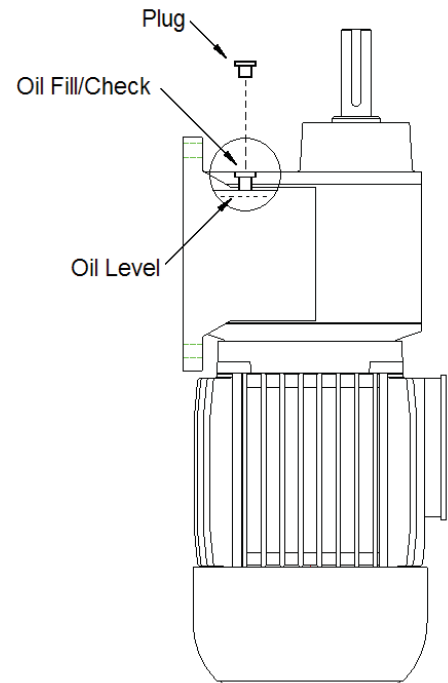
Recommended Gear Oil *AGMA Number Chart	
Air Temperature °F	AGMA Number
15 - 50	7
50 - 125	8

* American Gear Manufacturing Association

CAUTION *Do not use oils with extreme pressure additives consisting of kerosene, sulfur, or chlorine or any combination thereof because they will corrode bronze bushings.*

Note that the oil temperature in the gearcase may rise as high as 200°F in normal operation.

The bearings in the input motor portion of the gearmotor are pre-lubricated; they require no further lubrication. The bearings in the gearcase are lubricated by the gearcase oil.



Models

4RYU6 - 9, 4RYV1 - 9

Troubleshooting Chart

Symptom	Possible Cause(s)	Corrective Action
Gearmotor won't operate	<ol style="list-style-type: none"> 1. Loose connections. 2. Blown fuse or open circuit breaker. 3. Loss of line power. 4. Defective input motor. 5. Defective control switch. 	<ol style="list-style-type: none"> 1. Make connections secure. 2. Replace fuse or reset circuit breaker. 3. Have power company restore service. 4. Repair or replace motor. 5. Repair or replace switch.
Input motor runs, but gearmotor doesn't drive load	<ol style="list-style-type: none"> 1. Defective gear and/or worm shaft in gearmotor gearcase. 2. Stripped gearmotor output key. 	<ol style="list-style-type: none"> 1. Replace defective part(s): Check for excess shock load; reduce shock load where possible. 2. Replace key.
Operation is too noisy	<ol style="list-style-type: none"> 1. Worn gearmotor bearings. 2. Excess belt or chain tension. 3. Excess overhung load, causing bearing wear. 4. Low gearmotor oil level. 	<ol style="list-style-type: none"> 1. Replace bearings. 2. Adjust tension. 3. Reduce overhung load (see Installation); inspect bearings; replace defective bearings. 4. Add correct oil. (see Lubrication in Maintenance).
Gearmotor stalls or runs at low speed	<ol style="list-style-type: none"> 1. Low input voltage. 2. Gearmotor overload. 3. Dirty and/or loose connections. 	<ol style="list-style-type: none"> 1. Check input voltage at motor leads. It should be at least 90% of the nameplate voltage, if not, correct cause of low voltage. (Branch line conductors from power company lines to motor may be too small). 2. Reduce the load. 3. Clean and/or secure the connections.
Fuse blows repeatedly	<ol style="list-style-type: none"> 1. Same possible causes as listed above for "gearmotor stalls, etc." 2. Defective gearmotor bearings. 	<ol style="list-style-type: none"> 1. Same corrective action as listed above for "gearmotor stalls, etc." 2. Replace bearings. Make sure overhung load is not excessive (see Installation).

For Repair Parts, call 1-800-323-0620

24 hours a day – 365 days a year

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

NOTES:

Purchase fasteners and keys locally.

Use only gear oil type and quantity specified in Maintenance section.

Parts with the same reference number are sold together as a kit.

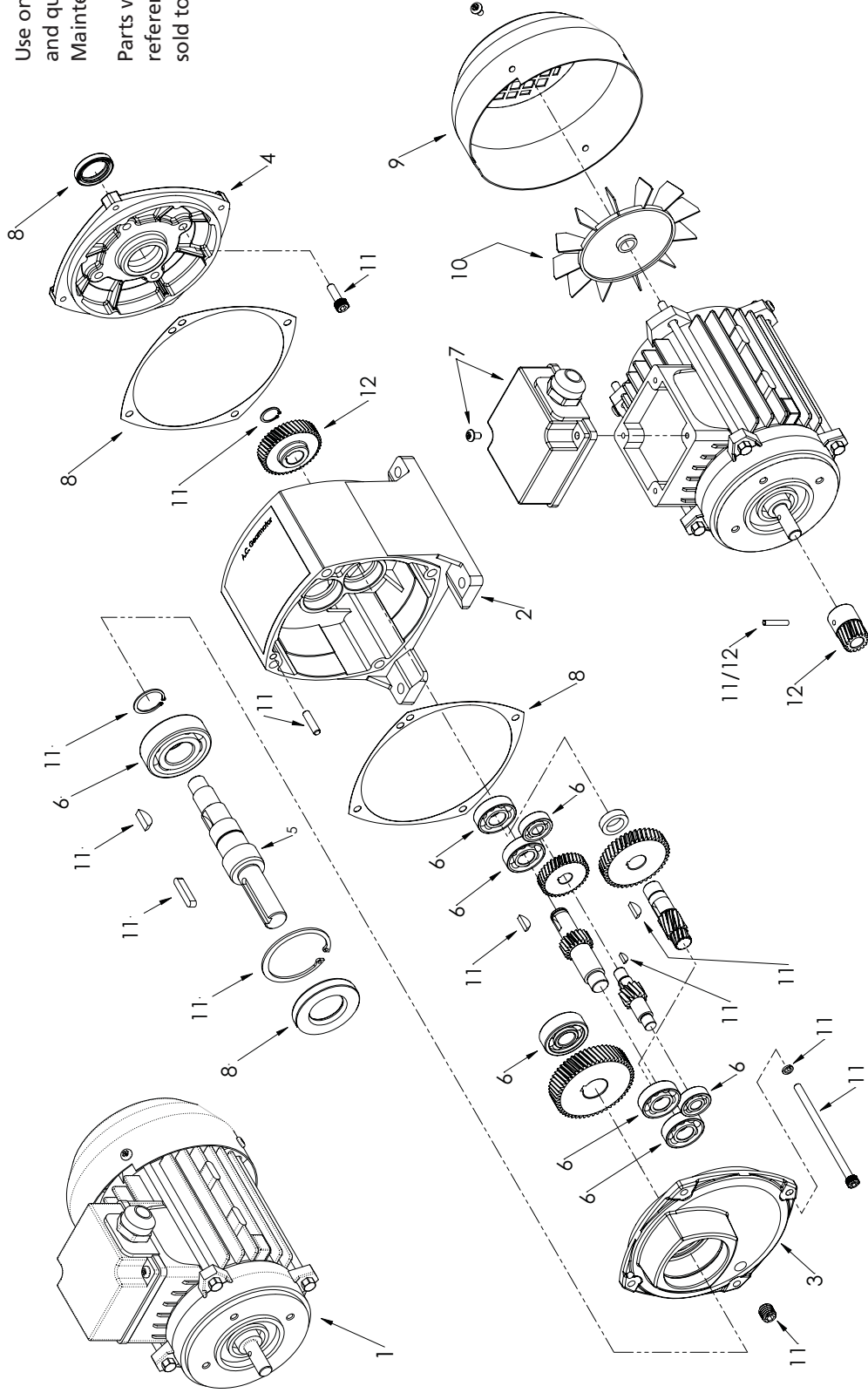


Figure 4 – Repair Parts Illustration for AC Gearmotor

Repair Parts List for AC Gearmotor

REF # >	1	2	3	4	5	6	7	8	9	10	11	12
MODEL #	MOTOR COMPLETE	MAIN HOUSING	OUTPUT COVER	INPUT COVER	OUTPUT SHAFT	BEARING KIT	CONDUIT BOX COVER	SEAL/GASKET KIT	FAN COVER	COOLING FAN	HARDWARE KIT	INPUT GEAR SET KIT
4RYU6	MOTOR-6152C-63-1/6	6240D	6239C	6241C	6265BFG	BG-04K	CB-04K	OS/GA-04K	MFC-03	MF-03	HDW-04K	1135GKIT-6262A
4RYU7	MOTOR-6152C-63-1/6	6240D	6239C	6241C	6265BFG	BG-05K	CB-04K	OS/GA-04K	MFC-03	MF-03	HDW-04K	1135GKIT-6262A
4RYU8	MOTOR-5261C-63-1/4	6240D	6239C	6241C	6265BFG	BG-05K	CB-04K	OS/GA-04K	MFC-03	MF-03	HDW-04K	1135GKIT-6262A
4RYU9	MOTOR-5261C-63-1/4	6240D	6239C	6241C	6265BFG	BG-05K	CB-04K	OS/GA-04K	MFC-03	MF-03	HDW-04K	1135GKIT-6262A
4RYV1	MOTOR-5261C-63-1/4	6240D	6239C	6241C	6265BFG	BG-05K	CB-04K	OS/GA-04K	MFC-03	MF-03	HDW-04K	1135GKIT-6262A
4RYV2	MOTOR-6252C-71-1/3	6240D	6239C	6241C	6265BFG	BG-05K	CB-05K	OS/GA-04K	MFC-04	MF-04	HDW-04K	1135GKIT-6262A
4RYV3	MOTOR-6252C-71-1/3	6240D	6239C	6241C	6265BFG	BG-05K	CB-05K	OS/GA-04K	MFC-04	MF-04	HDW-04K	1135GKIT-6262A
4RYV4	MOTOR-6252C-71-1/3	6240D	6239C	6241C	6265BFG	BG-05K	CB-05K	OS/GA-04K	MFC-04	MF-04	HDW-04K	1135GKIT-6262A
4RYV5	MOTOR-6252C-71-1/2	6240D	6239C	6241C	6265BFG	BG-05K	CB-05K	OS/GA-04K	MFC-04	MF-04	HDW-04K	1135GKIT-6262A
4RYV6	MOTOR-6252C-71-1/2	6240D	6239C	6241C	6265BFG	BG-05K	CB-05K	OS/GA-04K	MFC-04	MF-04	HDW-04K	1135GKIT-6262A
4RYV7	MOTOR-6252C-71-1/2	6240D	6239C	6241C	6265BFG	BG-05K	CB-05K	OS/GA-04K	MFC-04	MF-04	HDW-04K	1135GKIT-6260A
4RYV8	MOTOR-6252C-71-3/4	6240D	6239C	6241C	6265BFG	BG-05K	CB-05K	OS/GA-04K	MFC-04	MF-04	HDW-04K	1135GKIT-6260A
4RYV9	MOTOR-6252C-71-3/4	6240D	6239C	6241C	6265BFG	BG-05K	CB-05K	OS/GA-04K	MFC-04	MF-04	HDW-04K	1135GKIT-6260A

Dayton® AC Gearmotor

LIMITED WARRANTY

DAYTON ONE-YEAR LIMITED WARRANTY. DAYTON® 4RYU6, 4RYU7, 4RYU8, 4RYU9, 4RYV1, 4RYV2, 4RYV3, 4RYV5, 4RYV6, 4RYV7, 4RYV8, AND 4RYV9 MODELS COVERED IN THIS MANUAL, ARE WARRANTED BY DAYTON ELECTRIC MFG. CO. (DAYTON) TO THE ORIGINAL USER AGAINST DEFECTS IN WORKMANSHIP OR MATERIALS UNDER NORMAL USE FOR ONE YEAR AFTER DATE OF PURCHASE. ANY PART WHICH IS DETERMINED TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP AND RETURNED TO AN AUTHORIZED SERVICE LOCATION, AS DAYTON DESIGNATES, SHIPPING COSTS PREPAID, WILL BE, AS THE EXCLUSIVE REMEDY, REPAIRED OR REPLACED AT DAYTON'S OPTION. FOR LIMITED WARRANTY CLAIM PROCEDURES, SEE "PROMPT DISPOSITION" BELOW. THIS LIMITED WARRANTY GIVES PURCHASERS SPECIFIC LEGAL RIGHTS WHICH VARY FROM JURISDICTION TO JURISDICTION.

LIMITATION OF LIABILITY. TO THE EXTENT ALLOWABLE UNDER APPLICABLE LAW, DAYTON'S LIABILITY FOR CONSEQUENTIAL AND INCIDENTAL DAMAGES IS EXPRESSLY DISCLAIMED. DAYTON'S LIABILITY IN ALL EVENTS IS LIMITED TO AND SHALL NOT EXCEED THE PURCHASE PRICE PAID.

WARRANTY DISCLAIMER. A DILIGENT EFFORT HAS BEEN MADE TO PROVIDE PRODUCT INFORMATION AND ILLUSTRATE THE PRODUCTS IN THIS LITERATURE ACCURATELY; HOWEVER, SUCH INFORMATION AND ILLUSTRATIONS ARE FOR THE SOLE PURPOSE OF IDENTIFICATION, AND DO NOT EXPRESS OR IMPLY A WARRANTY THAT THE PRODUCTS ARE MERCHANTABILITY, OR FIT FOR A PARTICULAR PURPOSE, OR THAT THE PRODUCTS WILL NECESSARILY CONFORM TO THE ILLUSTRATIONS OR DESCRIPTIONS. EXCEPT AS PROVIDED BELOW, NO WARRANTY OR AFFIRMATION OF FACT, EXPRESSED OR IMPLIED, OTHER THAN AS STATED IN THE "LIMITED WARRANTY" ABOVE IS MADE OR AUTHORIZED BY DAYTON.

Technical Advice and Recommendations, Disclaimer. Notwithstanding any past practice or dealings or trade custom, sales shall not include the furnishing of technical advice or assistance or system design. Dayton assumes no obligations or liability on account of any unauthorized recommendations, opinions or advice as to the choice, installation or use of products.

Product Suitability. Many jurisdictions have codes and regulations governing sales, construction, installation, and/or use of products for certain purposes, which may vary from those in neighboring areas. While attempts are made to assure that Dayton products comply with such codes, Dayton cannot guarantee compliance, and cannot be responsible for how the product is installed or used. Before purchase and use of a product, review the product applications, and all applicable national and local codes and regulations, and be sure that the product, installation, and use will comply with them. Certain aspects of disclaimers are not applicable to consumer products; e.g., (a) some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you; (b) also, some jurisdictions do not allow a limitation on how long an implied warranty lasts, consequently the above limitation may not apply to you; and (c) by law, during the period of this Limited Warranty, any implied warranties of implied merchantability or fitness for a particular purpose applicable to consumer products purchased by consumers, may not be excluded or otherwise disclaimed.

Prompt Disposition. A good faith effort will be made for prompt correction or other adjustment with respect to any product which proves to be defective within limited warranty. For any product believed to be defective within limited warranty, first write or call dealer from whom the product was purchased. Dealer will give additional directions. If unable to resolve satisfactorily, write to Dayton at address below, giving dealer's name, address, date, and number of dealer's invoice, and describing the nature of the defect. Title and risk of loss pass to buyer on delivery to common carrier. If product was damaged in transit to you, file claim with carrier.

Manufactured for Dayton Electric Mfg. Co., 5959 W. Howard St., Niles, Illinois 60714-4014 U.S.A.