

ITEM OPPORTUNITY SYNOPSIS

Scouting Number:	2024-227
Name of the item to be scouted:	DC Gearmotor
State item to be used in:	Michigan

Describe the Item:

Please describe the item application/the end use of the item.	A Michigan company is looking for a manufacturer of low-voltage DC gearmotors. See the attached drawing for part parameters. Preference will be given to local/regional suppliers but all potential matches will be considered.
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Supplier Information:

Type of Supplier Being Sought (select from the list below):	
Manufacturer	x
Contract Manufacturer	
Distributor	
Other (Please Specify)	

Reason for Scouting Submission (select from the list below)	
2nd Supplier	
Price	x
Re-Shore	
Past supplier no longer available	
New Product Startup	
BABA	
Other (Please Specify)	

Summary of Technical Specifications and Performance Requirements:

Describe the manufacturing processes (elaborate to provide as much detail as possible)	See drawing & technical document
Provide dimensions / size / tolerances / performance specifications of the item	See drawing & technical document
List required materials needed to make the product, including materials of product components, if applicable	See drawing & technical document

Are there applicable certification requirements?	
Yes	
No	x
Please explain:	

Are there any applicable regulations that apply to the production of this item?	
Yes	
No	x
Please explain:	

Are there any other standards / requirements?	
Yes	
No	x
Please explain:	

NAICS CODES:	
NAICS 1	333612 Speed changers, industrial high-speed drives, and gear manufacturing
NAICS 2	335312 Motor and generator manufacturing

Additional Comments:

Additional technical comments:	
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Volume and Pricing:

Estimated Potential Business Volume (i.e. #units per day, month, year):	50/year - willing to order in annual quantities
Estimated Target Price/Unit Cost Information:	\$2,200.00

Delivery Requirements:

When is it needed by? (Immediate, 30 days, 6 months, etc.)	5/1/2025
Describe packaging requirements (i.e. individually/group packaging, etc.)	N/A
Where will this item be shipped?	St. Louis, MI

Additional Comments:

Is there other information you would like to include?	
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Speed: Motor input speeds up to 7240 RPM can be used to drive this precision planetary geartrain, of ratios from 3.81 to 940.

Connection Method: Two #18 AWG stranded leads, teflon insulated, 8" long are standard. Terminal type connections are available.

Rotation: Counter clockwise when viewed from shaft end, when positive lead (red) is plus and negative lead (black) is minus.

Reversibility: Unit reverses rotation when voltage is reversed.

Rating: 0.083 hp with torques to 500 lb. in.

Gears: Precision manufactured and heat treated, high nickel alloy steel.

Bearings: Output shaft supported by double shielded ball bearings, but needle bearings are readily available. All planet gears are mounted on anti-friction bearings.

Backlash: Less than 3°.

Shaft: Precision ground 8620 alloy steel per QQ-S-624, heat treated and case hardened.

Protection: Aluminum parts finished with iridite chemical film. Ring gear tin-zinc plated, chromate finish per MIL-C-81562B, class 2, type 2.

Lubrication: Motor bearings life lubricated per MIL-G-3278. Gearbox lubricated with grease per MIL-G-23827A. Special lubricants are available.

Weight: 3.13 to 6.00 pounds, depending on ratios.

BASIC GEARMOTOR DATA — STANDARD PART NUMBERS

SPEED REDUCTION RATIO	MAXIMUM ¹ CONT. DUTY TORQUE LB.IN.	TORQUE ² MULTIPLIER	LENGTH L _A DIMENSION	STANDARD FIR GEARMOTOR PART NUMBERS (Add armature dash number; see below.)
80.3	64.6	64.6	5.735	211A226-

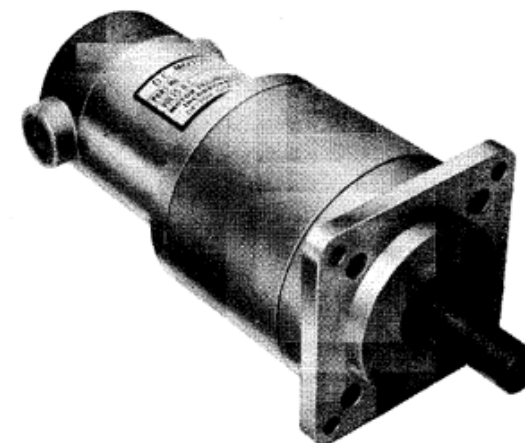
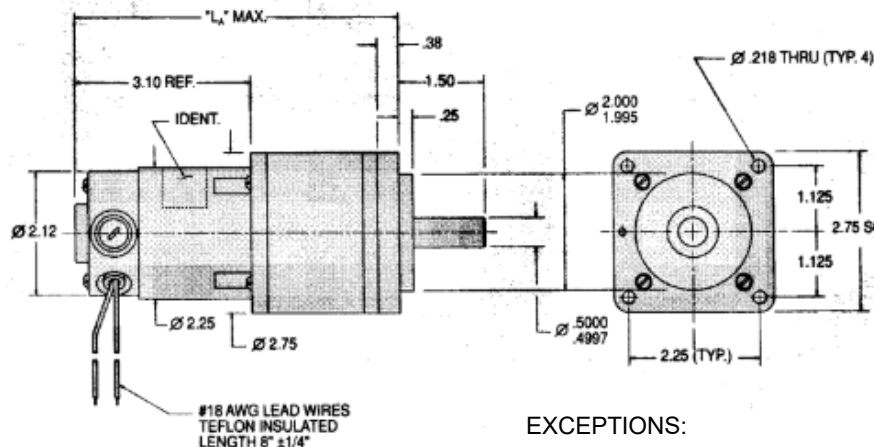
¹This rating is for gearbox only. To determine output of any motor-gearbox combination, multiply motor torque by the torque multiplier for that ratio.

²Torque multiplier ratio is the gear ratio multiplied by its efficiency.

BASIC FIR ARMATURE DATA³

INPUT VOLTAGE DC	NO-LOAD SPEED RPM	RATED TORQUE OZ.IN.	STALL TORQUE OZ.IN.	NO-LOAD CURRENT AMPS MAX.	RATED TORQUE CURRENT AMPS	STALL CURRENT AMPS	ARMATURE DASH NUMBERS
115	4700	21	114	.15	.83	3.80	-12

DIMENSIONS



EXCEPTIONS:

Same as standard 211A226-12 gearmotor except:

- Run at about 90vdc (rectified 115 vac) to produce theoretical stall torque of 5,760 oz-in
- Sealed bearings on output shaft of gearbox.
- Special gearbox output shaft:
 - 1.545" shaft extension from gearbox mounting face to end of shaft
 - Last 1.0" of shaft to be 0.370" x 0.370" square shaft. (Corners of square shaft will be rounded as nominal shaft diameter of standard 211A226-12 unit is only 0.500")
 - One 9/16" long x 0.094" deep flat cut down length of shaft, along corner of square shaft. (Flat to start 0.125" from end of shaft and end 0.688" from front end of shaft.)