

Precision Planetary Gearheads

TYPICAL APPLICATIONS

- Conveyor systems
- Medical pumps
- Packaging equipment
- Machine tools
- Factory automation
- Any application requiring:
 - Speed reduction
 - Torque multiplication

FEATURES

- Fits C42 brush-type motors
- Fits BN42 brushless motors
- Precision manufactured in accordance with DIN EN ISO 9001 Standards
- Compact design
- High efficiency
- Suitable for continuous, reversing and intermittent operation
- Can be installed in any attitude
- Life-time lubricant for maintenance-free operation

BENEFITS

- Coaxial arrangement of input and output
- Compact design
- High efficiency
- Low moments-of-inertia
- Can be installed in any attitude
- Suitable for continuous, reversing and intermittent operation
- Low sensitivity to impact load
- Large range of ratios available

120 mm (4.72 inch) Diameter



Quiet Precision Gearheads

Moog Components Group precision gearheads, when coupled to our line of brush-type and brushless motors, provide the user with a quiet and powerful precision gearmotor. Available in a wide range of ratios and output torques, these gearmotors will meet the requirements of a vast number of applications. Life-time lubrication ensures long life and maintenance-free operation.

Our engineering department is available for consultation to help you tailor a gearmotor for your specific application.

SPECIFICATIONS

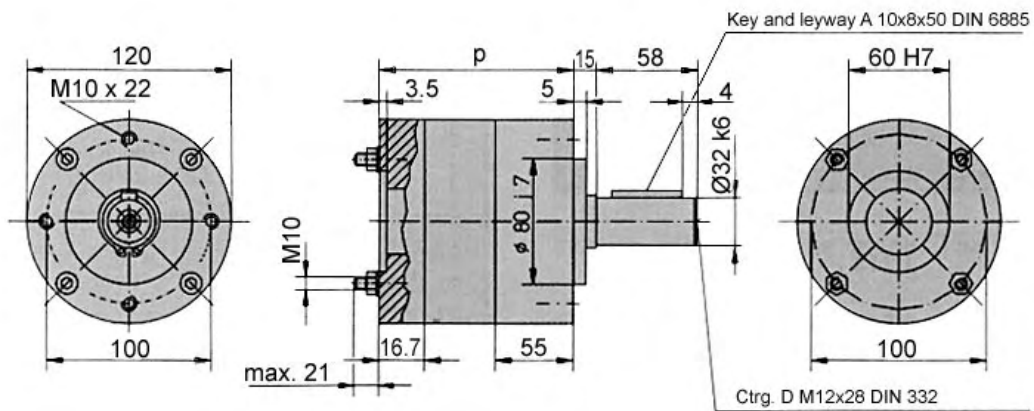
Available Ratios	# of Stages	Output Torque	Shaft Inertia (gcm ²)
4:1 (3.70:1)	One	50.0 Nm (36.88 ft - lbs)	1.112
7:1 (6.75:1)	One	50.0 Nm (36.88 ft - lbs)	0.557
14:1 (13.73:1)	Two	150.0 Nm (110.6 ft - lbs)	0.997
25:1 (25.01:1)	Two	150.0 Nm (110.6 ft - lbs)	0.515
46:1 (45.56:1)	Two	150.0 Nm (110.6 ft - lbs)	0.520
51:1 (50.89:1)	Three	300.0 Nm (221.3 ft - lbs)	0.967
93:1 (92.70:1)	Three	300.0 Nm (221.3 ft - lbs)	0.513
169:1 (168.84:1)	Three	300.0 Nm (221.3 ft - lbs)	0.519
308:1 (307.54:1)	Three	300.0 Nm (221.3 ft - lbs)	0.519

120 mm Technical Data

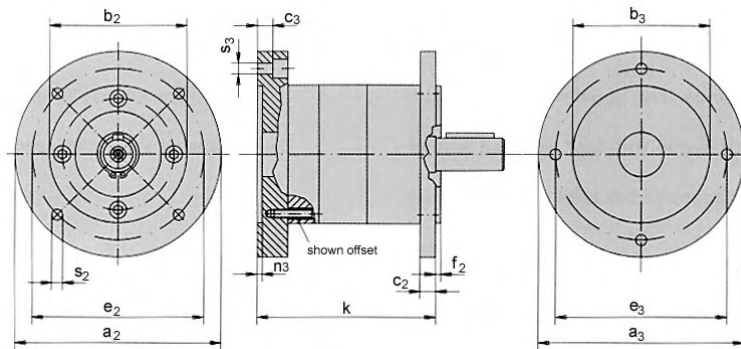
Parameter	Units	1-Stage	2-Stage	3-Stage
Max Input Speed	rpm	5000	5000	5000
Efficiency	%	80	75	70
Approx. Backlash (no-load, input locked)	DMS°	1.0	1.5	2.0
Radial Load	N	600	900	1500
Axial Load	N	120	180	300
Max Permitted Fitting Pressure	N	2500	2500	2500
Weight	kg	5.6	8.0	10.4
Dimension (diameter x length)	mm	120 x 180	120 x 214	120 x 248
Lubrication	Grease (life-time lubrication)			
Installation Attitude	Any			
Operating Temperature	-15 to +80° C			
Direction of Rotation	Same for input and output shaft			

Package Dimensions

Basic Version



Standard Flange Version



Gear Unit Length		1-Stage	2-Stage	3-Stage
P		107	141	175
Motor size 71	K	150	184	218
Motor size 80	K	160	194	228

DIM of Motor Mounting Flange		a_3	b_3	c_3	e_3	n_3	s_3
Motor size 71 (B14, B3/B14)	C 105	120	70 H7	15	85	3.0	6.4
	C 140	140	95 H7	15	115	3.5	8.4
Motor size 80 (B14, B3/B14)	C 120	120	80 H7	15	100	3.5	6.4
	C 160	160	110 H7	15	130	4.0	8.4

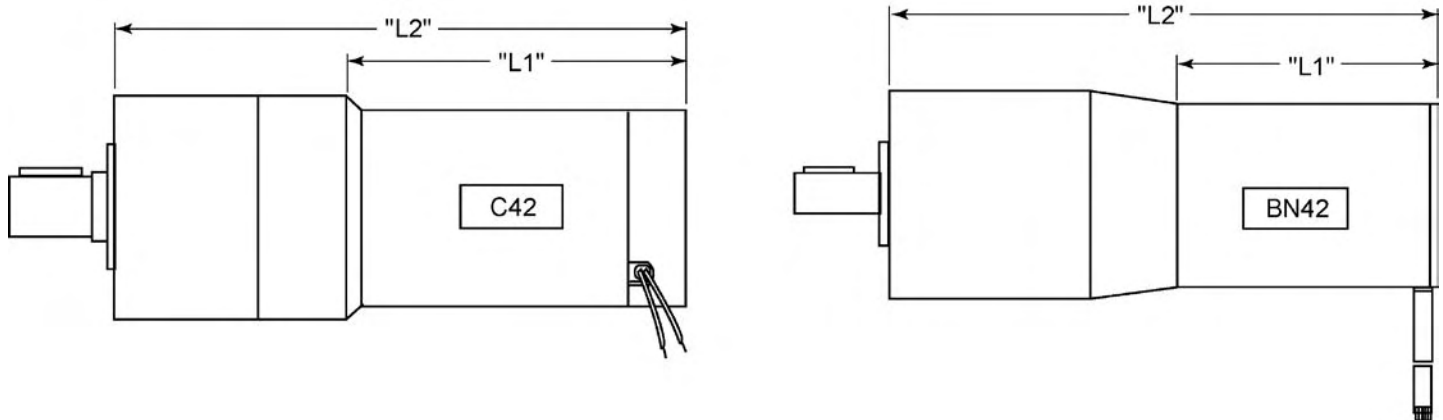
DIM of Gear Unit Output Flange		a_2	b_2	c_2	e_2	f_2	s_2
C 140		140	95 J7	15	115	3.0	M8
C 160		160	110 J7	15	130	3.5	M8

We reserve the right to make technical changes.

Note: All dimension on this page are in millimeters.

Gearheads

Dimensional Drawings



Motor + Gearhead Dimensions*

Unit Type	L1 Max	L2 Max (1-Stage)	L2 Max (2-Stage)	L2 Max (3-Stage)
C42-L50	5.00 in (127 mm)	10.213 in (259.4 mm)	11.551 in (293.4 mm)	12.890 in (327.4 mm)
C42-L70	7.00 in (177.8 mm)	12.213 in (310.2 mm)	13.551 in (344.2 mm)	14.890 in (378.2 mm)
C42-L90	9.00 in (228.6 mm)	14.213 in (361 mm)	15.551 in (395 mm)	16.890 in (429 mm)
BN42-23	2.30 in (63.5 mm)	7.513 in (190.8 mm)	8.851 in (224.8 mm)	10.190 in (258.8 mm)
BN42-33	3.30 in (88.9 mm)	8.513 in (216.2 mm)	9.851 in (250.2 mm)	11.190 in (284.2 mm)
BN42-43	4.30 in (114.3 mm)	9.513 in (241.6 mm)	10.851 in (275.6 mm)	12.190 in (309.6 mm)
BN42-53	5.30 in (134.6 mm)	10.513 in (267 mm)	11.851 in (301 mm)	13.190 in (335 mm)

*All dimensions are reference dimensions

Ordering Information - Examples

120-46:1 – 120 mm gearhead, 46:1 ratio
 120-308:1 – 120 mm gearhead, 308:1 ratio