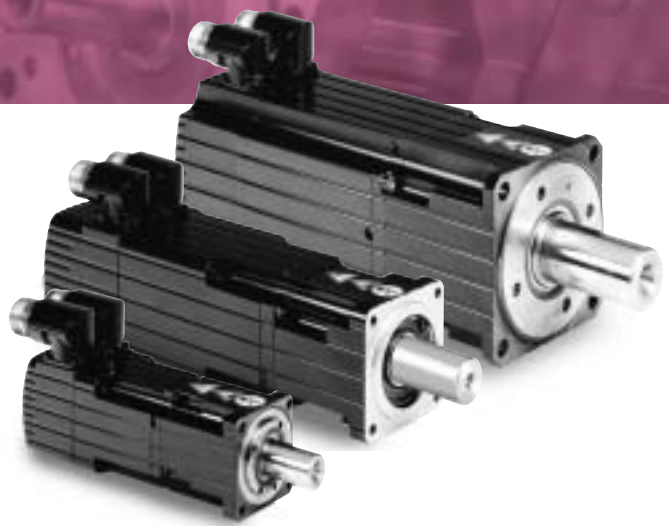
MOOG

GEA G
Brushless Servo-Gearmotors



DESCRIPTION & GENERAL DATA

GEA G

Description

Moog GEA G Series Gear Motor is based on the high dynamic Moog AC Servomotors and a technologically improved single stage planetary gear box.

The integration of these high performance elements results in a gear motor with reduced length, low inertia, high stiffness and superior dynamics.

The new Moog Gearmotor is most suitable in demanding applications where high power density and low weight are required.

For example:

- Robotics (wrist axis)
- Handling systems
- Pick and Place devices
- Packaging machines
- Printing machines
- Textile machines
- Plastic machines

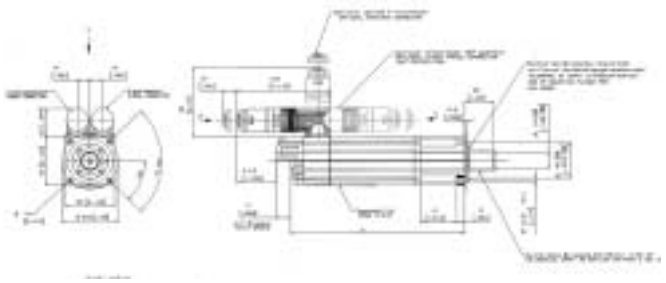
General Data

- Backlash:
  Size 2: < 8 arcmin; Size 3 and 4: < 3 arcmin
- Torsional rigidity:
  Size 2: 3.5 Nm/arcmin; Size 3: 6.5 Nm/arcmin;
  Size 3: 9.0 Nm/arcmin
- Running noise 60 dB(A)
- Max. radial load:
  Size 2: [1] 2,500 N; Size 3: [1] 3,500 N; Size 4: [1]5,000 N
- Max. axial load:
  Size 2: [1] 2,800 N; Size 3: [1] 4,300 N; Size 4: [1]12,000 N
- Protection class IP65
- Winding 325/630V
- Insulation class F
- Operation temperature -25 to +100 °C
- Any mounting position
- Lifetime grease lubrication
- Design according to VDE and UL
- High max. radial load
- High max. axial load

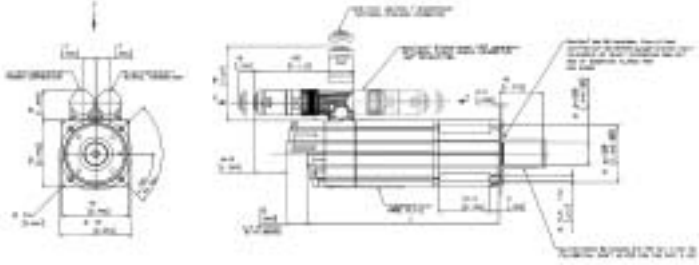
[1] half way along output shaft and 100% duty time

Dimensions

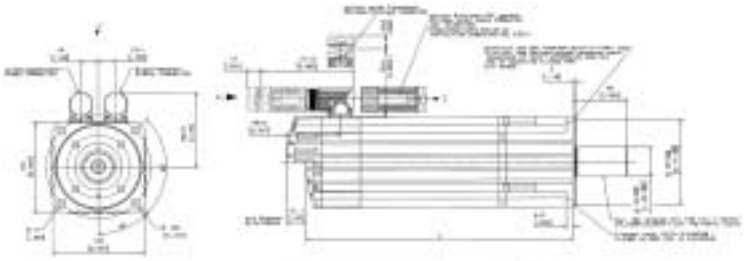
Size 2



Size 3



Size 4



This catalog is for users with technical knowledge. To ensure that all necessary characteristics for function and safety of the system are given, the user has to check the suitability of the products described herein.
The products described herein are subject to change without notice. In case of doubt, please contact Moog.

For the most current information, visit www.moog.com/servomotorsanddrives

Dimensions and tolerances in mm
Dimensioni meccaniche in mm

Specific Technical Data

Motor G482 [2]	**2** (L05)	**4** (L10)	**6** (L20)	**8** (L40)	Symbol
Gear ratio i [3]	4/7	4/7	4/7	4	-
Continuous stall torque M_0	0.8/1.4	1.6/2.8	3.0/5.3	5.8	Nm
Peak stall torque M_{max}	1.6/2.8	4.4/7.8	8.2/14.5	17	Nm
Nominal power P_N	0.150	0.325	0.530	0.820	kW
Inertia J	0.156/0.135	0.196/0.175	0.286/0.265	0.476	$kgcm^2$
Mass m	1.9	2.1	2.4	3.2	kg
Motor length A	157	170	195	246	mm

Motor G483 [2]	**2** (L05)	**4** (L15)	**6** (L25)	**8** (L40)	Symbol
Gear ratio i [3]	4/8	4/8	4/8	4/8	-
Continuous stall torque M_0	2.0/4.0	5.7/11.4	9/18	13	Nm
Peak stall torque M_{max}	5.2/10.4	16.6/33.2	30/60	46	Nm
Nominal power P_N	0.45	0.95	1.15	1.40	kW
Inertia J	0.352/0.280	0.582/0.510	0.812/0.740	1.162	$kgcm^2$
Mass m	3.3	3.9	4.5	5.4	kg
Motor length A	174	199	225	263	mm

Motor G484 [2]	**2** (L05)	**4** (L10)	**6** (L20)	**8** (L40)	**9** (L60)	Symbol
Gear ratio i [3]	4/8	4/8	4/8	4	4	-
Continuous stall torque M_0	5.2/10.4	10.4/20.8	18.8/37.6	32.8	49.2	Nm
Peak stall torque M_{max}	12.8/25.6	26.8/52.0	50.0/100.0	88.0	140.0	Nm
Nominal power P_N	0.58	0.95	1.80	2.31	4.10	kW
Inertia J	1.95/1.49	2.45/1.99	3.50/3.04	5.60	7.65	$kgcm^2$
Mass m	7.0	7.6	8.7	10.9	13.2	kg
Motor length A	204	217	242	293	344	mm

[2] Dependent on the application, Moog supplies motor controller L180, T200, DS2000 and DACS

[3] For other ratio, please contact factory

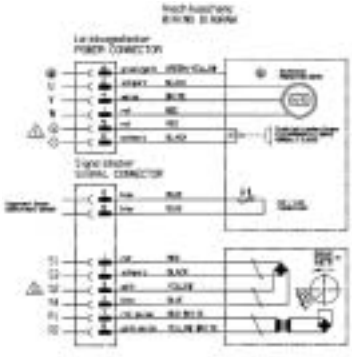
Options

Holding Brake	Size 2	Size 3		Size 4		Symbol
Option	1	1	2	1	2	
Gear ratio	4/7	4/8	4/8	4/8	4/8	i
Holding torque	3.2/5.7	5.2/10.4	10.4/20.8	24/48	60/120	Nm
Inertia	0.02	0.07	0.18	0.54	1.00	$Kgcm^2$
Power requirement	11	11	10	13	19	W
Extra weight	0.18	0.20	0.32	0.53	0.75	kg
Extra length	-	22	22	21	21	mm

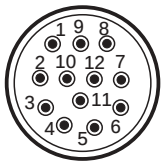
Wiring Diagram

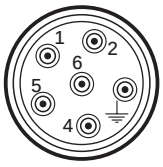
Power Connector

Signal Connector



Connectors





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PIS EN-59- 09/03