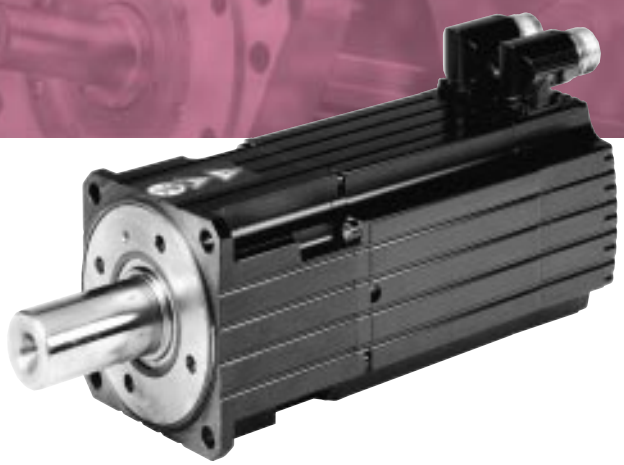
GEA G, Size 1
Brushless Servo-Gearmotors



DESCRIPTION

The 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 lenght, low inertia, high stiffness and superior dynamics.

The new Moog Gear Motor 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

- design according to VDE and UL
- high max. radial load
- high max. axial load

GENERAL TECHNICAL DATA

- backlash < 3 arc/min
- torsional rigidity 9.0 Nm/arcmin
- running noise 60 dB(A)
- max. radial load [1] 5,000 N
- max. axial load [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

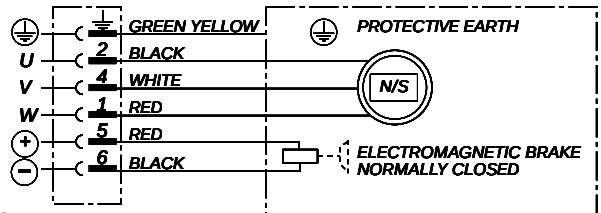
[1] half way along output shaft and 100% duty time

OPTIONS

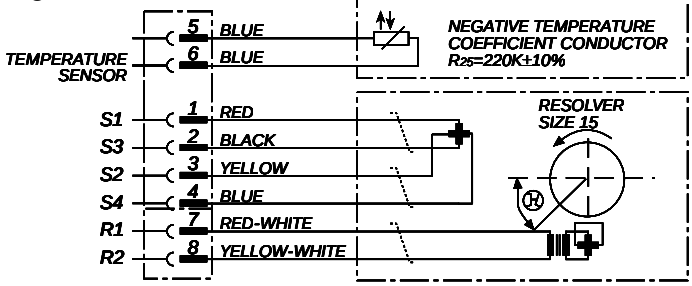
Holding brake	**Option 1**	**Option 2**	
- gear ratio	4/8	4/8	[i]
- holding torque	24/48	60/120	[Nm]
- inertia	0.54	1.00	[kgcm^2]
- power requirement	13	19	[W]
- extra weight	0.53	0.75	[kg]
- extra length	21	21	[mm]

Wiring Diagram

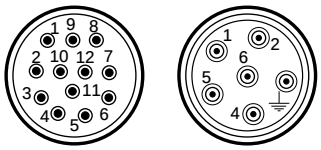
Power Connector



Signal Connector



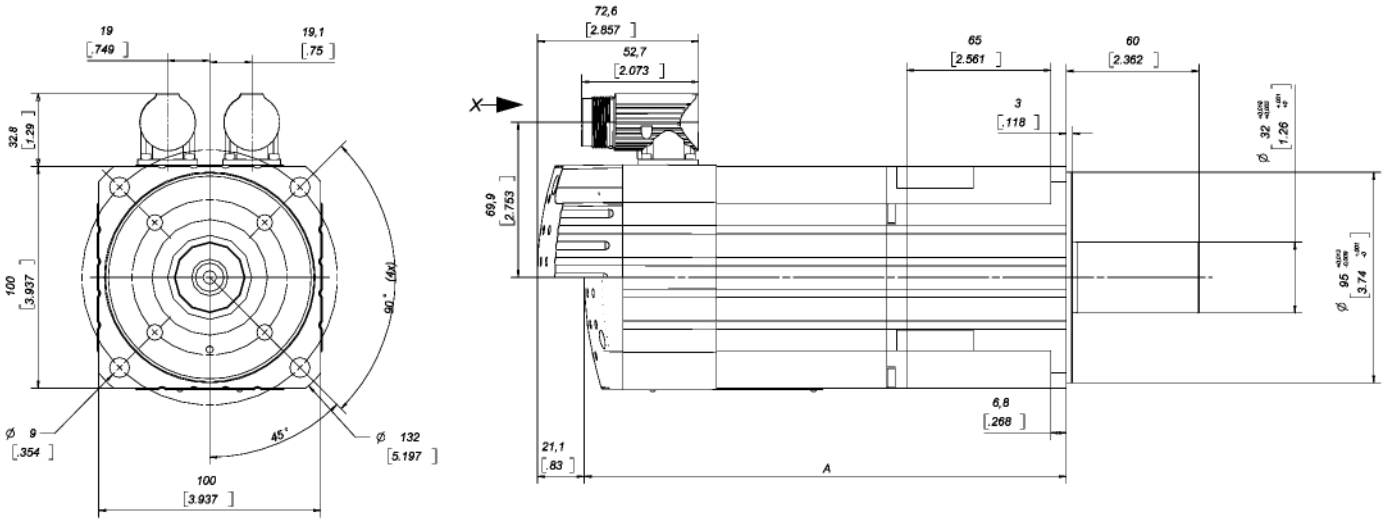
Connectors



SPECIFIC TECHNICAL DATA [2]

Motor [3]	**GEA G-1-M2 GEA G-1-V2** (L05)	**GEA G-1-M4 GEA G-1-V4** (L10)	**GEA G-1-M6 GEA G-1-V6** (L20)	**GEA G-1-M8 GEA G-1-V8** (L40)	**GEA G-1-M9 GEA G-1-V9** (L60)	Symbol
Gear ratio i [4]	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] Please find the detailed characteristics of the motors in the motor catalogue
[3] Dependent on the application, Moog supplies motor controller L180, T200, DS2000 and DACS
[4] For other ratio, please contact factory



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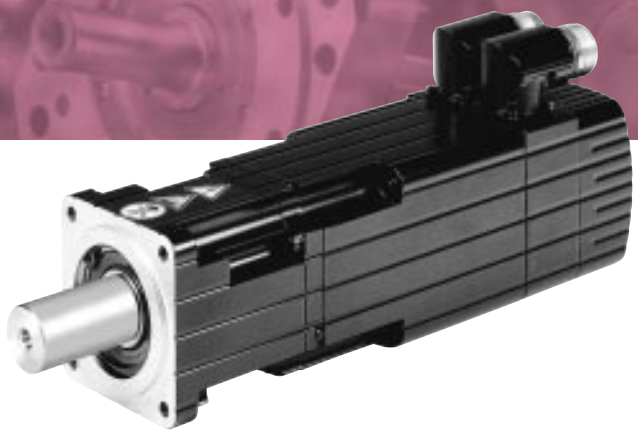
PIS EN-55 - 09/02

GEA G Series Gear Motor - Size 0
Brushless Servomotors



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

- design according to VDE and UL
- high max. radial load
- high max. axial load

GENERAL TECHNICAL DATA

- backlash < 3 arc/min
- torsional rigidity 6.5 Nm/arcmin
- running noise 60 dB(A)
- max. radial load [1] 3,500 N
- max. axial load [1] 4,300 N
- protection class IP65
- winding 325/630V
- insulation class F
- operation temperature -25 to +100 °C
- any mounting position
- lifetime grease lubrication

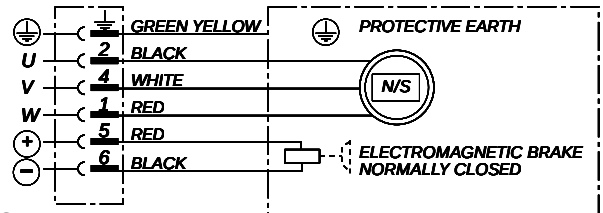
[1] half way along output shaft and 100% duty time

OPTIONS

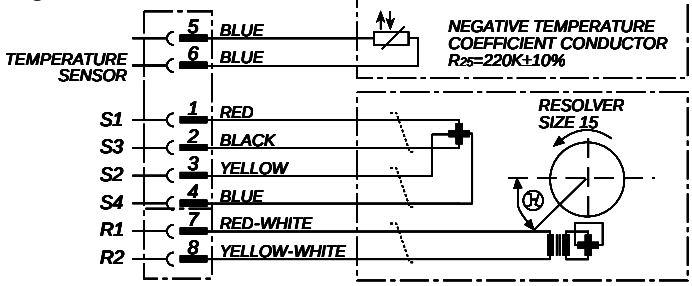
Holding brake	**Option 1**	**Option 2**	
- gear ratio	4/8	4/8	[i]
- holding torque	5.2/10.4	10.4/20.8	[Nm]
- inertia	0.07	0.18	[kgcm²]
- power requirement	11	10	[W]
- extra weight	0.20	0.32	[kg]
- extra length	22	22	[mm]

Wiring Diagram

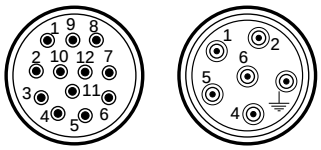
Power Connector



Signal Connector



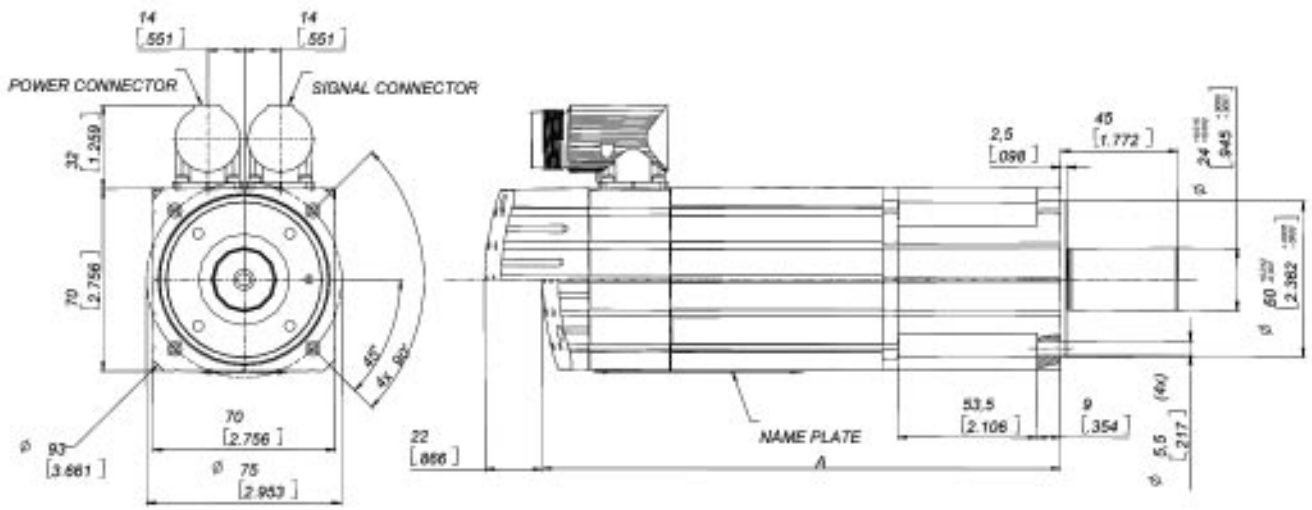
Connectors



SPECIFIC TECHNICAL DATA [2]

Motor [3]	**GEA G-0-M2 GEA G-0-V2** (L05)	**GEA G-0-M4 GEA G-0-V4** (L15)	**GEA G-0-M6 GEA G-0-V6** (L25)	**GEA G-0-M8 GEA G-0-V8** (L40)	Symbol
Gear ratio i [4]	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	kgcm²
Mass m	3.3	3.9	4.5	5.4	kg
Motor length A	174	199	225	263	mm

[2] Please find the detailed characteristics of the motor in the motor catalogue
[3] Dependent on the application, Moog supplies motor controller L180, T200 and DS200
[4] For other ratio, please contact factory



The quality management is certified by DIN EN ISO 9001

DIN ISO 9001 certified BVQI

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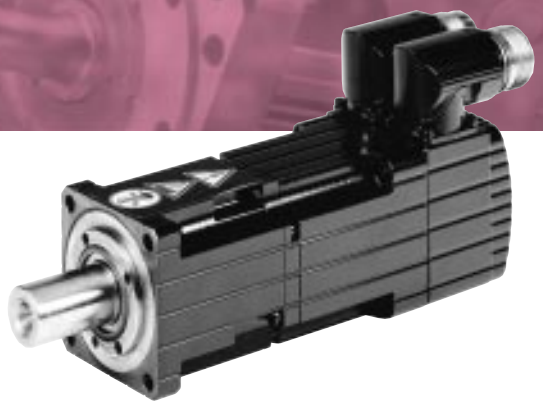
PIS EN-54 - 09/02

GEA G Series Gear Motor - Size 00
Brushless Servomotors



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- Printing machines
- Textile machines
- Plastic machines

- design according to VDE and UL
- high max. radial load
- high max. axial load

GENERAL TECHNICAL DATA

- backlash < 8 arc/min
- torsional rigidity 3.5 Nm/arcmin
- running noise 60 dB(A)
- max. radial load [1] 2,500 N
- max. axial load [1] 2.800 N
- protection class IP65
- winding 325/630V
- insulation class F
- operation temperature -25 to +100 °C
- any mounting position
- lifetime grease lubrication

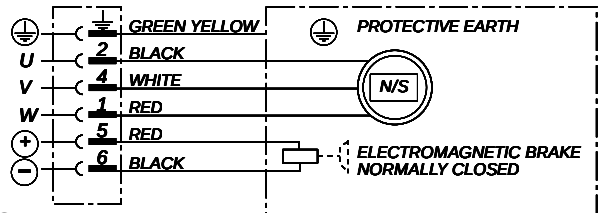
[1] half way along output shaft and 100% duty time

OPTIONS

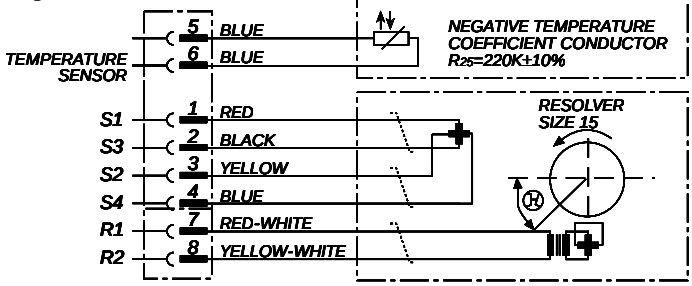
Holding brake	**Option 1**	
- gear ratio	4/7	[i]
- holding torque	3.2/5.7	[Nm]
- inertia	0.02	[kgcm²]
- power requirement	11	[W]
- extra weight	0.18	[kg]

Wiring Diagram

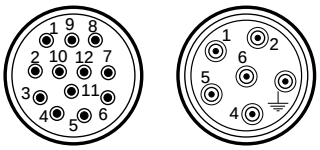
Power Connector



Signal Connector



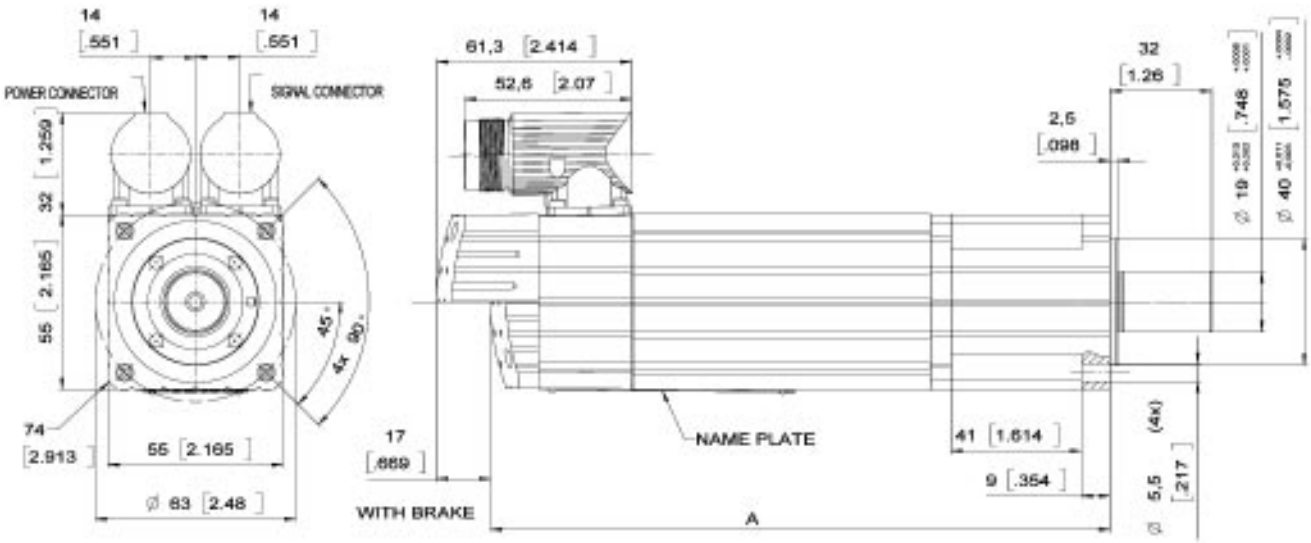
Connectors



SPECIFIC TECHNICAL DATA [2]

Motor [3]	**GEA G-00-M2** **GEA G-00-V2** (L05)	**GEA G-00-M4** **GEA G-00-V4** (L10)	**GEA G-00-M6** **GEA G-00-V6** (L20)	**GEA G-00-M8** **GEA G-00-V8** (L40)	Symbol
Gear ratio i [4]	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	kgcm²
Mass m	1.9	2.1	2.4	3.2	kg
Motor length A	157	170	195	246	mm

[2] Please find the detailed characteristics of the motor in the motor catalogue
[3] Dependent on the application, Moog supplies motor controller L180, T200 and DS200
[4] For other ratio, please contact factory



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