SG35 Inline Spur Gearhead

UHV Inline Spur Gearhead for use with D35.1 Stepper Motors

ARUN MICROELECTRONICS LTD

The SG35 series gearheads couple directly to AML D35.1 stepper motors and are suitable for use in UHV environments. Primarily used for increasing resolution, torque multiplication and inertia matching. They are designed for maximum torque capacity, high efficiency and zero backlash.

FEATURES

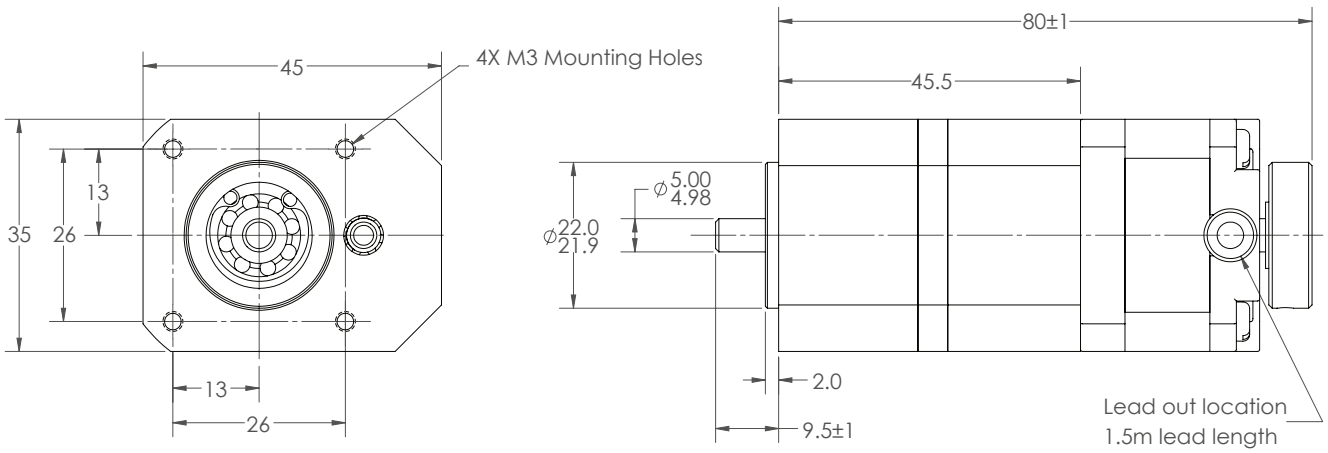
- Suitable for use below 1x10^{-10} mbar
- 5:1 ratio
- Efficiency: >75%
- Low inertia
- High precision, zero backlash
- Bakeable to 200 °C
- Operational temperature range -65 °C to +190 °C
- In-line shafts
- Anti-backlash spur gears
- RoHS compliant

SPECIFICATION

Reduction Ratio	Nominal Output Torque (1)	Maximum Acceleration Torque	Gear Inertia	Efficiency at nominal torque	Radial Load (2)	Axial Load (2)	Mass	Lubrication
(:1)	mNm	mNm	kg-cm2	%	N	N	kg	
5	350	450	0.25	75	160	100	0.58	Nyetorr® 6300

Direction of rotation: Same as input
Vacuum environment: <1 x 10^{-10}
Max. temperature: +200 °C
(1) Measured at 500 Hz
(2) @75 rpm, radial load applied at centre of shaft

DIMENSIONS



ORDERING INFORMATION

Order Code	
SG35-005	UHV Spur Inline Gearhead for D35.1 Stepper Motor (Ratio 5:1)

Related Products	
D35.1	75 mNm UHV stepper motor

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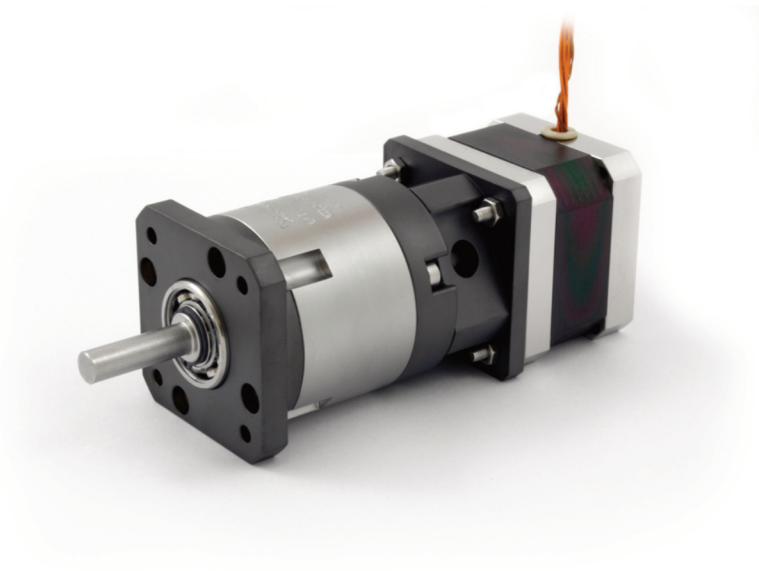
PG42 Planetary Gearhead

UHV Planetary Gearhead for use with D42 Series Stepper Motors

ARUN MICROELECTRONICS LTD

The PG42 series gearheads couple directly to AML D42 stepper motors and are suitable for use in UHV environments. Primarily used for increasing resolution, torque multiplication and inertia matching. They are designed for maximum torque capacity, high efficiency and low backlash.



- Suitable for use below 1 x 10^{-10} mBar
- Multiple ratio options, 4:1 through 100:1
- Low inertia
- High precision, low backlash
- Service life > 10,000 hours
- Bakeable to 200°C

SPECIFICATIONS

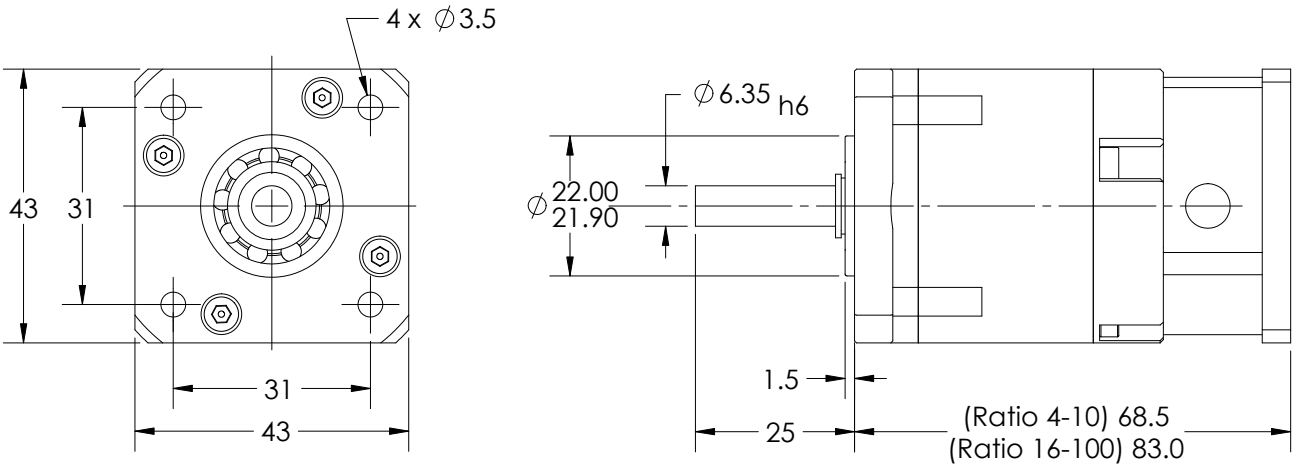
Reduction Ratio (:1)	Nominal Output Torque Nm	Maximum Acceleration Torque Nm	Gear Inertia kg-cm²	Backlash[1] arc-min	Efficiency at nominal torque %	Radial Load[2] N	Axial Load[2] N	Maximum Mass kg	Lubrication
4	5.9	11.8	0.020	<15	96	200	196	0.60	Nyetorr 6300
5	6.2	11.8	0.018						
7	5.5	11.0	0.016						
10	3.5	7.0	0.016						
16	6.5	13.0	0.019	<18	94			0.90	
20	6.5	13.0	0.017						
25	6.7	13.0	0.017						
35	6.7	13.0	0.016						
40	6.5	13.0	0.016						
50	6.7	13.0	0.016						
70	5.5	11.0	0.016						
100	3.5	7.0	0.016						

Nominal input speed: 4500 rpm
Maximum input speed: 8000 rpm
Direction of rotation: Same as input
Vacuum environment: <1 x 10^{-10}
Max. temperature: +200°C
Min. temperature: -65°C

(1) Measured at 2% of rated torque

(2) @100rpm, radial load applied at centre of shaft

DIMENSIONS



ORDERING INFORMATION

Order Code	
PG42-XX	UHV Planetary Gearhead for AML Stepper Motors

Related Products	
D42.1	250 mNm UHV Stepper Motor
D42.2	500 mNm UHV Stepper Motor
D42.3	550 mNm UHV Stepper Motor

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PG57 Planetary Gearhead

UHV Planetary Gearhead for use with D57 Series Stepper Motors

ARUN MICROELECTRONICS LTD

The PG57 series gearheads couple directly to the AML D57 stepper motor and are suitable for use in UHV environments. Primarily used for increasing resolution, torque multiplication and inertia matching. They are designed for maximum torque capacity, high efficiency and low backlash.

- Suitable for use below 1 x 10^{-10} mBar
- Multiple ratio options, 3:1 through 100:1
- Low inertia
- High precision, low backlash
- Service life > 10,000 hours
- Bakeable to 200°C

SPECIFICATIONS

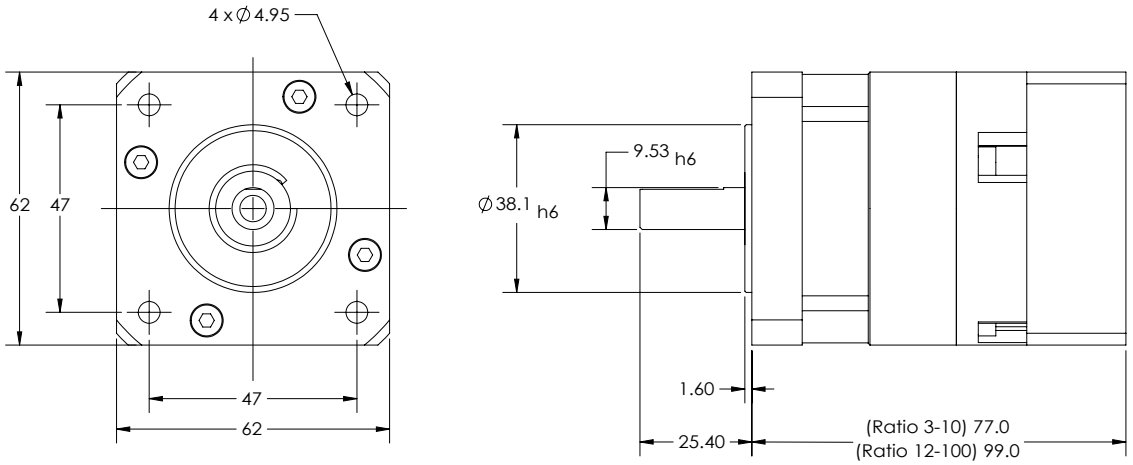
Reduction Ratio (:1)	Nominal Output Torque Nm	Maximum Acceleration Torque Nm	Gear Inertia kg-cm²	Backlash[1] arc-min	Efficiency at nominal torque %	Radial Load[2] N	Axial Load[2] N	Maximum Mass kg	Lubrication
3	12.0	24.0	0.140	<12	96	665	765	1.2	Nyetorr 6300
4	18.9	36.4	0.100						
5	19.6	36.4	0.084						
7	16.7	33.4	0.075						
10	10.6	21.2	0.007						
12	18.2	36.4	0.097	<16	94			1.6	
15	19.4	36.4	0.083						
20	21.5	40.0	0.083						
25	20.0	40.0	0.083						
30	22.5	40.0	0.070						
40	21.5	40.0	0.070						
50	20.0	40.0	0.070						
70	16.7	33.4	0.070						
100	10.6	21.2	0.070						

Nominal input speed: 4500 rpm
Maximum input speed: 8000 rpm
Direction of rotation: Same as input
Vacuum environment: <1 x 10^{-10}
Max. temperature: +200°C
Min. temperature: -65°C

(1) Measured at 2% of rated torque

(2) @100rpm, radial load applied at centre of shaft

DIMENSIONS



ORDERING INFORMATION

Order Code	
PG57-XX	UHV Planetary Gearhead for AML Stepper Motors

Related Products	
D57.1	1,000 mNm UHV Stepper Motor

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