

PG42 Planetary Gearhead

UHV Planetary Gearhead for use with D42 Series Stepper Motors

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.



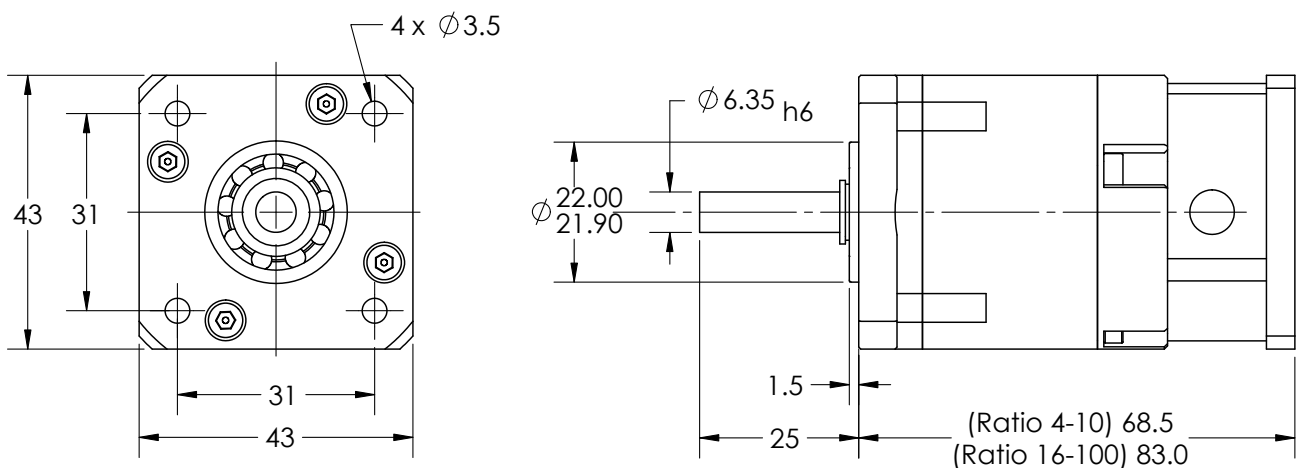
FEATURES

- Suitable for use below 1×10^{-10} mBar
- Multiple ratio options, 4:1 through 100:1
- High efficiency, >94%
- Low inertia
- High precision, low backlash
- Service life >10,000 Hrs
- Bakeable to 200°C
- RoHS compliant

SPECIFICATIONS

Reduction Ratio	Nominal Output Torque	Maximum Acceleration Torque	Gear Inertia	Backlash ¹⁾	Efficiency at nominal torque	Radial Load ²⁾	Axial Load ²⁾	Mass	Lubrication			
(:1)	Nm	Nm	kg-cm ²	arc-min	%	N	N	kg				
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												
(1) Measured at 2% of rated torque (2) @100rpm, radial load applied at centre of shaft												

DIMENSIONS



ORDERING INFORMATION

Order Code	
PG42-xx	Precision Planetary Gearhead
Related products	
D42.1	180mNm UHV Stepper Motor
D42.2	360mNm UHV Stepper Motor
D42.3	480mNm UHV Stepper Motor

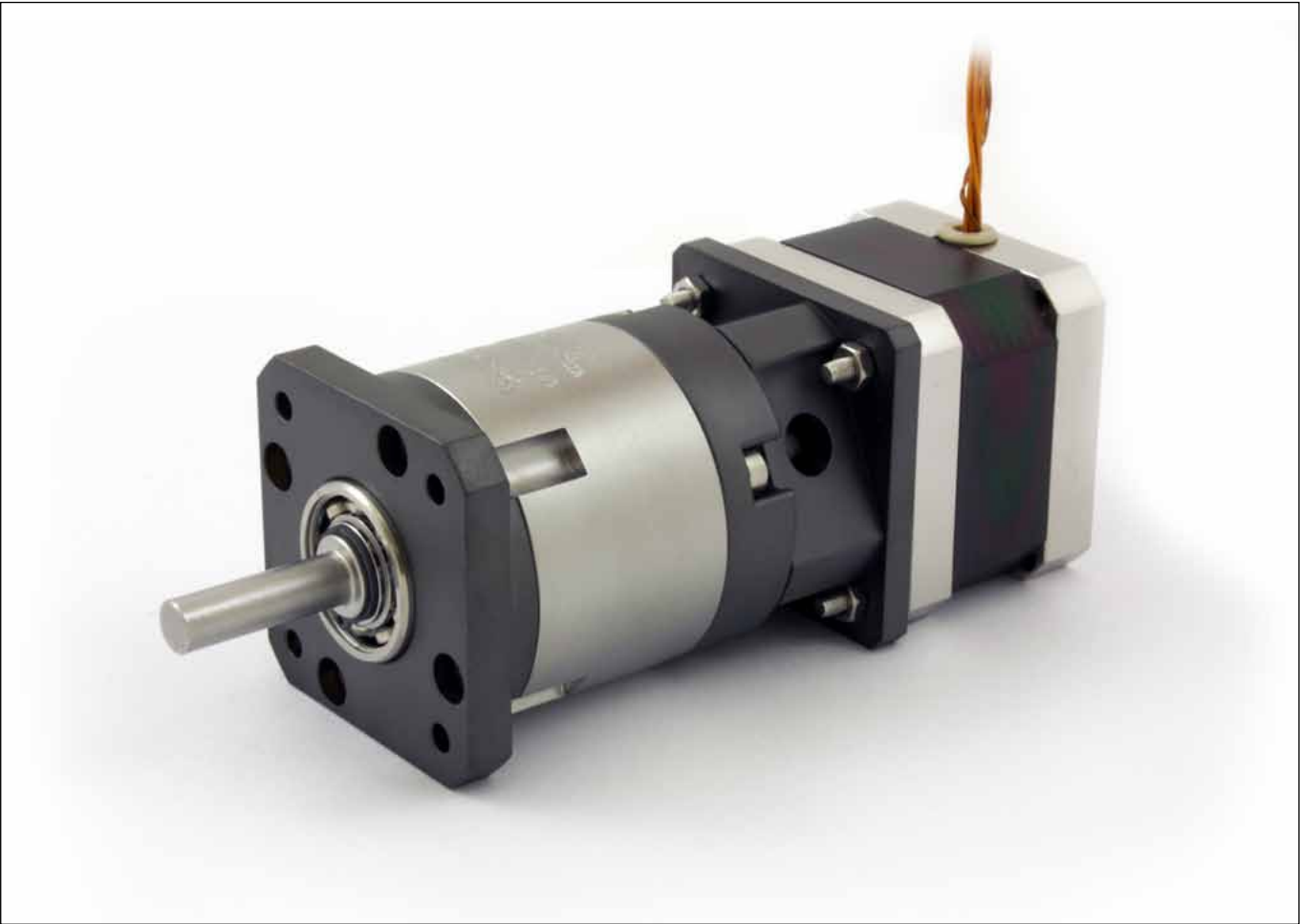
AML pursues a policy of continuous improvement and reserves the right to make detail changes to specifications without consultation. E and OE.

Order code format		
	PG42-	10
Order Code		
Ratio		



Arun Microelectronics Ltd
Bury Mill Farm
Bury Gate
Bury
PULBOROUGH
RH20 1NN

Tel: +44 (0)1903 884141
email: sales@arunmicro.com



PG42-10 mounted to D42.1 Stepper Motor