

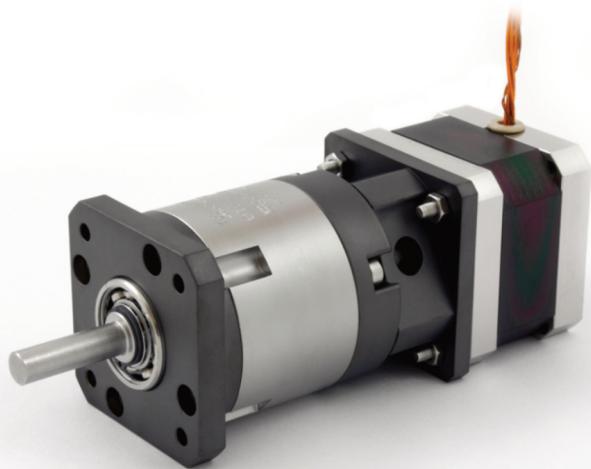
PG42 Planetary Gearhead

UHV Planetary Gearhead for use with D42 Series Stepper Motors

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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 1×10^{-10} mBar
- Multiple ratio options, 5:1 through 100:1
- Additional gear ratios available for special order.
- 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-cm ²	Backlash ⁽¹⁾ arc-min	Efficiency at nominal torque %	Radial Load ⁽²⁾ N	Axial Load ⁽²⁾ N	Maximum Mass kg	Lubrication	
5	6.2	11.8	0.018	<15	96	200	196	0.60	NyeTorr® 6300	
10	3.5	7.0	0.016					0.90		
20	6.5	13.0	0.017							
50	6.7	13.0	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: $<1 \times 10^{-10}$ mBar

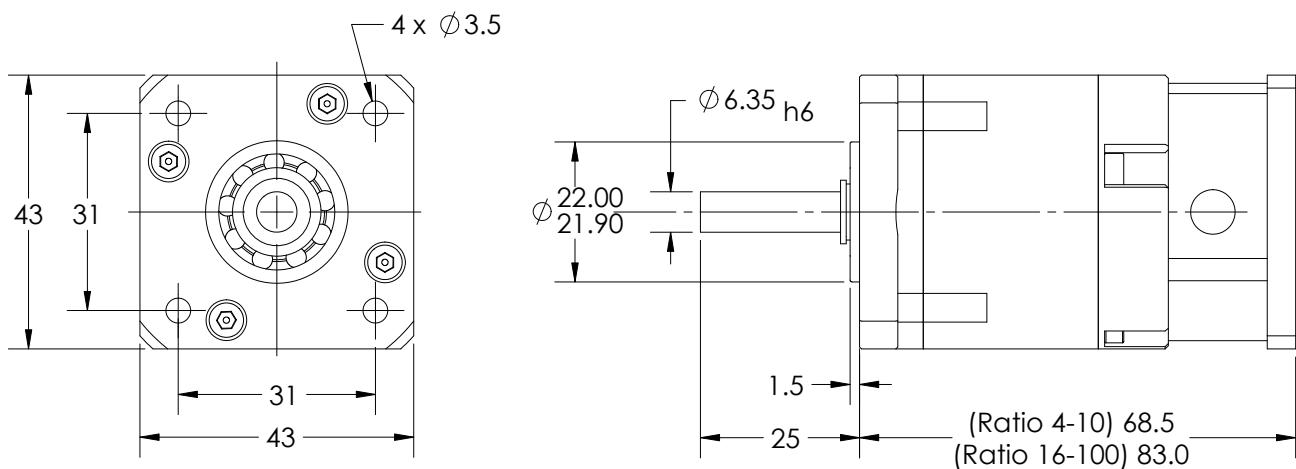
Max. temperature: +200°C

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