

GP42/GP56

High-torque planetary gearboxes GP

The planetary gearboxes of the GP series can be combined with brushless DC motors and stepper motors. They are available in one- and two-stage versions as well as with mounting flanges for all compatible motor series from Nanotec. Thanks to their modular concept, they are quick and easy to adapt to individual requirements.

High torque

Through simulation-based toothing design, the GP42 and GP56 gearboxes were optimized in such a way that they achieve a significantly higher torque than gearboxes of comparable design.

GP42

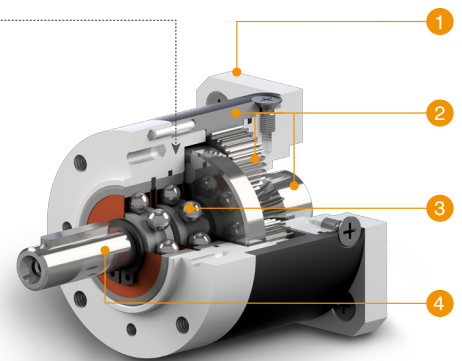
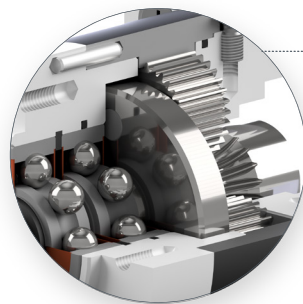
The gearboxes of the GP42 series are equipped with an 8-mm shaft and planets that run on sliding bearings. They can be combined with brushless internal and external rotor motors as well as with stepper motors with 42 mm flange size (NEMA 17).

- 9.9 Nm max. rated torque
- 4 to 46 reduction ratio
- 0.95° max. backlash

GP56

In the standard version the GP56 gearboxes are equipped with a 12-mm shaft and planets that run on sliding bearings. The T version comes with a 14-mm shaft, reinforced output bearings and planetary gears on needle bearings, which improve the efficiency and service life under increased axial and radial loads.

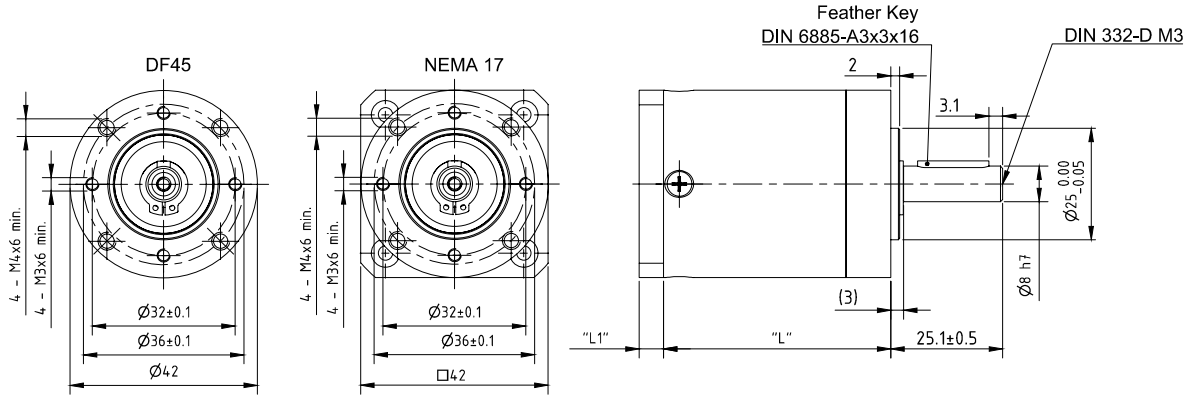
- 29.1 Nm max. rated torque
- 3 to 62 reduction ratio
- 0.6° max. backlash



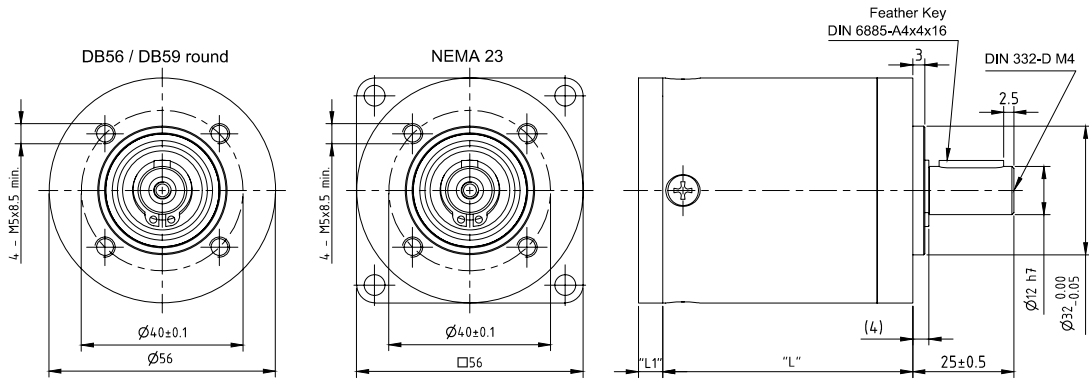
- 1 Motor flange for all matching Nanotec motors
- 2 Planets, sun- and ring gears made of hardened steel
- 3 Output shaft with two ball bearings
- 4 Individual shafts possible in series



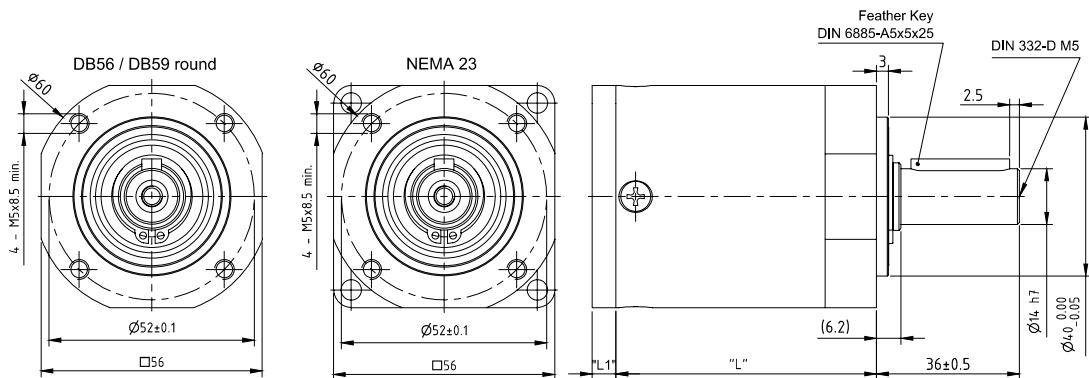
GP42



GP56-S



GP56-T



	GP42-S1	GP42-S2	GP56-S1	GP56-S2	GP56-T1	GP56-T2
Reductions	4/5/7/9	15/21/26/46	3/5/7/8/10	11/16/20/26/ 33/43/62	3/5/7/8/10	11/16/20/26/ 33/43/62
Rated torque	1.8-7.5 Nm	9.6-9.9 Nm	3.6-21.6 Nm	17.4-29.1 Nm	3.6-21.6 Nm	17.4-29.1 Nm
Rated speed	3,000 U/min	3,000 U/min	3,500 U/min	3,500 U/min	3,500 U/min	3,500 U/min
Service life	10,000 h	10,000 h	10,000 h	10,000 h	10,000 h	10,000 h
Efficiency	89%	83%	91%	86%	94%	92%
Matching motors	NEMA 17, DF45	NEMA 17, DF45	NEMA 23/24, APBA60, DFA90	NEMA 23/24, APBA60, DFA90	NEMA 23/24, APBA60, DFA90	NEMA 23/24, APBA60, DFA90