# Product data sheet

WITTENSTEIN | alpha

## NP

### Low backlash planetary gearbox



| Gearbox data | |
|---|---|
| Designation: NP015S-MF2-15-0C1-1S | |
| Gearbox type | NP |
| Gearbox size | 015 |
| Design keyword | Standard |
| Gearbox variation | Motor attachment gearbox |
| Gearbox stages | 2 |
| Gearbox ratio i | 15 |
| Output design | Smooth shaft |
| Clamping hub diameter | 14 mm |
| Gearbox backlash | Standard |
| Gearbox material number | 10046120 |

| Motor mounting parts (included in delivery) | |
|---|---|
| Incl. mounting parts for servo motor | SIEMENS AG<br>1FK2103-4AG00-0xA0 |
| Adapter plate | 10032108 |

| Order designation |
|---|
| **NP015S-MF2-15-0C1-1S / SIEMENS AG 1FK2103-4AG00-0xA0** |

| Technical specifications | | |
|---|---|---|
| Max. output torque<br>(Depending on the specific boundary conditions of the application) | $T_{2\alpha}$ | 51 Nm |
| Max. acceleration torque<br>(max. 1000 cycles per hour) | $T_{2B}$ | 31 Nm |
| Nominal output torque<br>(with $n_{1N}$) | $T_{2N}$ | 17 Nm |
| Emergency stop torque (permitted 1000 times during the service life of the gearbox) | $T_{2Not}$ | 80 Nm |
| Nominal input speed<br>(with $T_{2N}$ and 20°C ambient temperature) a) | $n_{1N}$ | 4000 $min^{-1}$ |
| Max. input speed | $n_{1Max}$ | 10000 $min^{-1}$ |
| Mean no load running torque<br>(with $n_1$=3000 $min^{-1}$ and 20°C gearbox temp.) b) | $T_{012}$ | 0.07 Nm |
| Max. torsional backlash | $j_t$ | ≤ 10 arcmin |
| Torsional rigidity b) | $C_{t21}$ | 2.8 Nm/arcmin |
| Tilting rigidity | $C_{2K}$ | 17 Nm/arcmin |
| Max. axial force c) | $F_{2AMax}$ | 1550 N |
| Max. radial force c) | $F_{2RMax}$ | 1700 N |
| Max. tilting moment | $M_{2KMax}$ | 62 Nm |
| Efficiency at full load | η | 95 % |
| Service life (for calculation, see the Chapter "Information" in our product catalogue) | $L_h$ | > 20000 h |
| Weight incl. standard adapter plate | m | 1.9 kg |
| Operating noise<br>(with $n_1$=3000 $min^{-1}$ no load) | $L_{PA}$ | ≤ 65 dB(A) |
| Max. permitted housing temperature | | 90 °C |
| Ambient temperature | | -15 °C to 40 °C |
| Lubrication | | lubricated for life |
| Paint | | Dark pearl gray / inno-vation blue |
| Protection class | | IP 64 |
| Inertia<br>(relates to the drive) | $J_1$ | 0.14 $kgcm^2$ |

a) For higher ambient temperatures, please reduce input speed
b) Depends on clamping hub diameter
c) Refers to center of the output shaft or flange