

Product data sheet

XP⁺

Low backlash planetary gearbox



| Gearbox data | |
|-------------------------|--------------------------|
| Designation: | XP050S-MF2-16-1K1-2S |
| Gearbox type | XP ⁺ |
| Gearbox size | 050 |
| Design keyword | Standard |
| Gearbox variation | Motor attachment gearbox |
| Gearbox stages | 2 |
| Gearbox ratio i | 16 |
| Output design | Key |
| Clamping hub diameter | 38 mm |
| Gearbox backlash | Standard |
| Gearbox material number | 20025831 |

| Motor mounting parts (included in delivery) | |
|---|---|
| Incl. mounting parts for servo motor | TBD |
| Adapter plate | Configure with provided cymex [®] 5 file |

| Order designation |
|--|
| XP050S-MF2-16-1K1-2S / Specify your motor P/N here |

Confirm motor compatibility with cymex[®] 5. Download your pre-configured file and base 3D model here!^{d)}



Don't have cymex[®] 5? Get your Premium license here!



| Technical specifications | | |
|---|--------------------|-------------------------|
| Max. output torque (Depending on the specific boundary conditions of the application) | T _{2α} | 3696 Nm |
| Max. acceleration torque (max. 1000 cycles per hour) | T _{2B} | 3080 Nm |
| Nominal output torque (with n _{IN}) | T _{2N} | 1178 Nm |
| Emergency stop torque (permitted 1000 times during the service life of the gearbox) | T _{2Not} | 5000 Nm |
| Nominal input speed (with T _{2N} and 20°C ambient temperature) ^{a)} | n _{1N} | 2700 min ⁻¹ |
| Max. input speed | n _{1Max} | 5000 min ⁻¹ |
| Mean no load running torque (with n ₁ =3000 min ⁻¹ and 20°C gearbox temp.) ^{b)} | T ₀₁₂ | 5.1 Nm |
| Max. torsional backlash | j _t | ≤ 4 arcmin |
| Torsional rigidity ^{b)} | C _{t21} | 290 Nm/arcmin |
| Tilting rigidity | C _{2K} | 1900 Nm/arcmin |
| Max. axial force ^{c)} | F _{2AMax} | 17725 N |
| Max. radial force ^{c)} | F _{2RMax} | 18000 N |
| Max. tilting moment | M _{2KMax} | 3256 Nm |
| Efficiency at full load | η | 94 % |
| Service life (for calculation, see the Chapter "Information" in our product catalogue) | L _h | > 20000 h |
| Weight incl. standard adapter plate | m | 36 kg |
| Operating noise (with n ₁ =3000 min ⁻¹ no load) | L _{PA} | ≤ 64 dB(A) |
| Max. permitted housing temperature | | 90 °C |
| Ambient temperature | | -15 °C to 40 °C |
| Lubrication | | lubricated for life |
| Paint | | Innovation blue |
| Protection class | | IP 65 |
| Inertia (relates to the drive) | J ₁ | 14.28 kgcm ² |

a) For higher ambient temperatures, please reduce input speed

b) Depends on clamping hub diameter

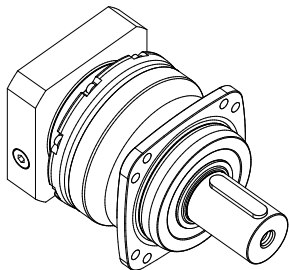
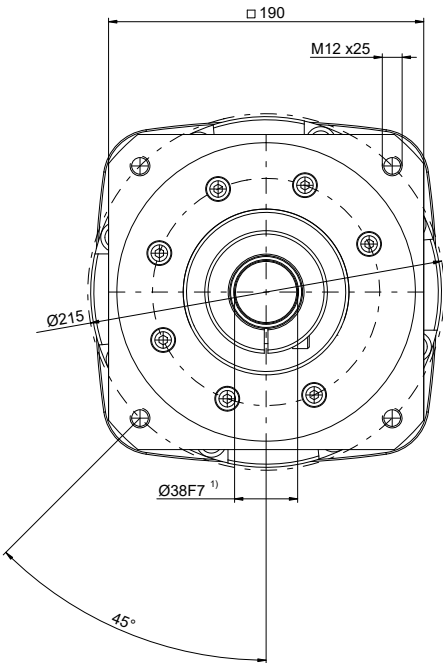
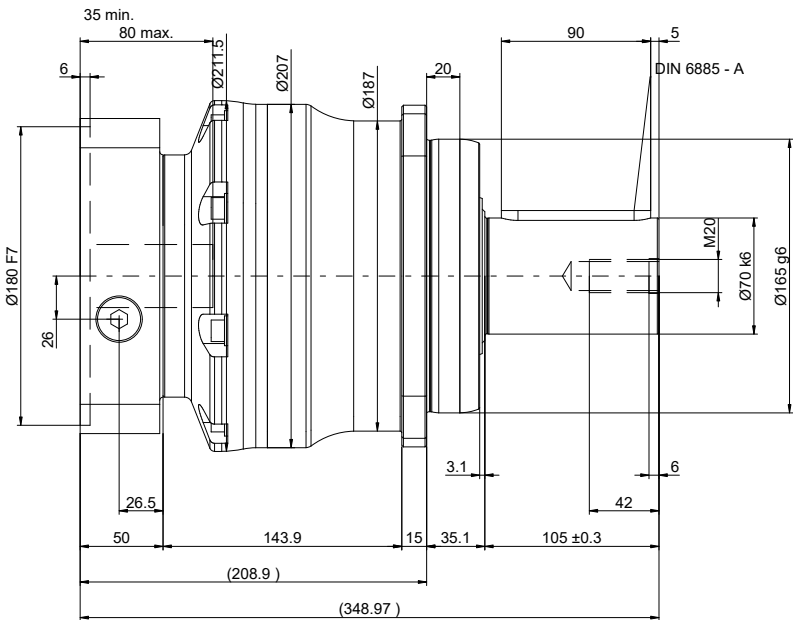
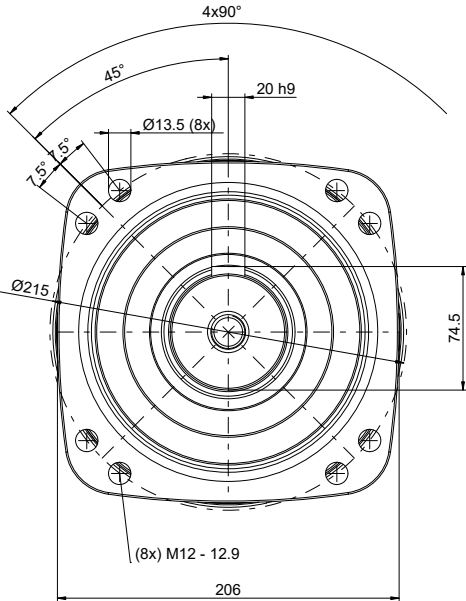
c) Refers to center of the output shaft or flange

d) Use cymex[®] 5 to confirm adapter plate dimensions and motor compatibility

New to cymex[®] 5? Learn how to check motor compatibility quickly with a simple tutorial.



Please note: adapter plate dimensions may vary based on specified motor



1) Motorwellenpassung pruefen / Check motor shaft fit

Technische Aenderungen vorbehalten / Technical modifications reserved

Betriebsanleitung unter www.wittenstein-alpha.de / Operating manual on www.wittenstein-alpha.de

Nicht tolerierte Masse sind Nennmasse / Non-toleranced dimensions are nominal dimensions

| | | | |
|--|--|------------------|------------------------------------|
| gez/draft | | Masstab Scale | |
| Datum/date | | auto | |
| Eigentumsvorbehalt nach DIN 34 beachten ! | Observe copyright note according to DIN 34 ! | | |
| Benenn. Descr. | XP 050S-MF2- 16-1K1-2S | | |
| Kommentar Note | Motor specified by user - compatibility check required | | |
| MN | 20025831 | DIN A3 | Ursp./Ref-Drwg: CAD-Generator V2.0 |
| | | | Blatt/Sheet: 1 |



nicht vertraulich

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| Anbauteile / mounting parts | | |
|--------------------------------|----|-----|
| Adapterplatte adapter plate | MN | TBD |
| Distanzhülse bushing | MN | |