

# Product data sheet

**XP+**

Low backlash planetary gearbox



| Gearbox data            |                            |
|-------------------------|----------------------------|
| <b>Designation:</b>     | <b>XP030S-MF1-4-1K1-2S</b> |
| Gearbox type            | XP+                        |
| Gearbox size            | 030                        |
| Design keyword          | Standard                   |
| Gearbox variation       | Motor attachment gearbox   |
| Gearbox stages          | 1                          |
| Gearbox ratio i         | 4                          |
| Output design           | Key                        |
| Clamping hub diameter   | 38 mm                      |
| Gearbox backlash        | Standard                   |
| Gearbox material number | 20026910                   |

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

| Order designation  |  |
|--|--|
| <b>XP030S-MF1-4-1K1-2S / Specify your motor P/N here</b> |  |

Confirm motor compatibility with cymex® 5. Download your pre-configured file and base 3D model here!<sup>d)</sup>



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| Technical specifications  |                    |                         |
|---|--------------------|-------------------------|
| Max. output torque<br>(Depending on the specific boundary conditions of the application)                          | T <sub>2α</sub>    | 600 Nm                  |
| Max. acceleration torque<br>(max. 1000 cycles per hour)   | T <sub>2B</sub>    | 550 Nm                  |
| Nominal output torque<br>(with n <sub>IN</sub> )  | T <sub>2N</sub>    | 171 Nm                  |
| Emergency stop torque (permitted 1000 times during the service life of the gearbox)                               | T <sub>2Not</sub>  | 1000 Nm                 |
| Nominal input speed<br>(with T <sub>2N</sub> and 20°C ambient temperature) <sup>a)</sup>                          | n <sub>1N</sub>    | 2500 min <sup>-1</sup>  |
| Max. input speed  | n <sub>1Max</sub>  | 5500 min <sup>-1</sup>  |
| Mean no load running torque<br>(with n <sub>1</sub> =3000 min <sup>-1</sup> and 20°C gearbox temp.) <sup>b)</sup> | T <sub>012</sub>   | 2.9 Nm                  |
| Max. torsional backlash   | j <sub>t</sub>     | ≤ 3 arcmin              |
| Torsional rigidity <sup>b)</sup>  | C <sub>t21</sub>   | 40 Nm/arcmin            |
| Tilting rigidity  | C <sub>2K</sub>    | 675 Nm/arcmin           |
| Max. axial force <sup>c)</sup>  | F <sub>2AMax</sub> | 6700 N                  |
| Max. radial force <sup>c)</sup>   | F <sub>2RMax</sub> | 9000 N                  |
| Max. tilting moment   | M <sub>2KMax</sub> | 1296 Nm                 |
| Efficiency at full load   | η                  | 97 %                    |
| Service life (for calculation, see the Chapter "Information" in our product catalogue)                            | L <sub>h</sub>     | > 20000 h               |
| Weight incl. standard adapter plate   | m                  | 7.7 kg                  |
| Operating noise<br>(with n <sub>1</sub> =3000 min <sup>-1</sup> no load)  | L <sub>PA</sub>    | ≤ 65 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<br>(relates to the drive)   | J <sub>1</sub>     | 10.36 kgcm <sup>2</sup> |

a) For higher ambient temperatures, please reduce input speed

b) Depends on clamping hub diameter

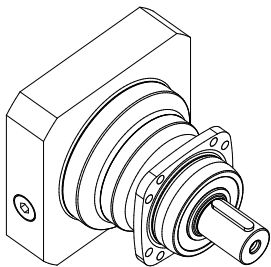
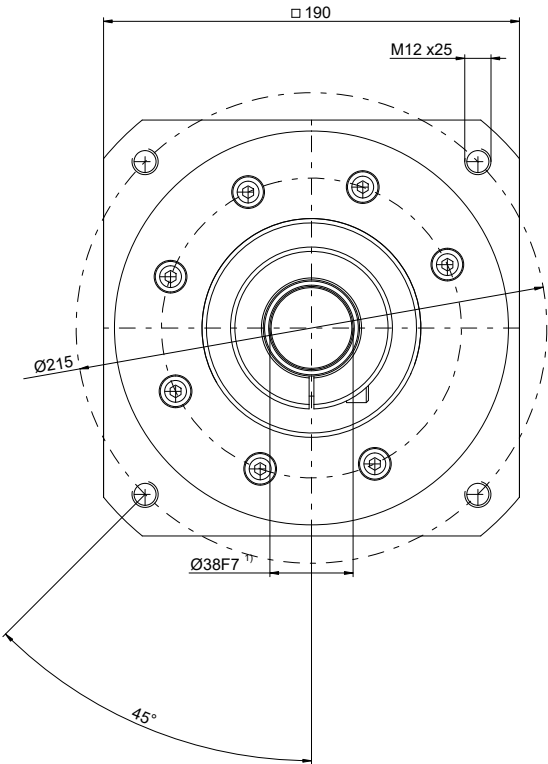
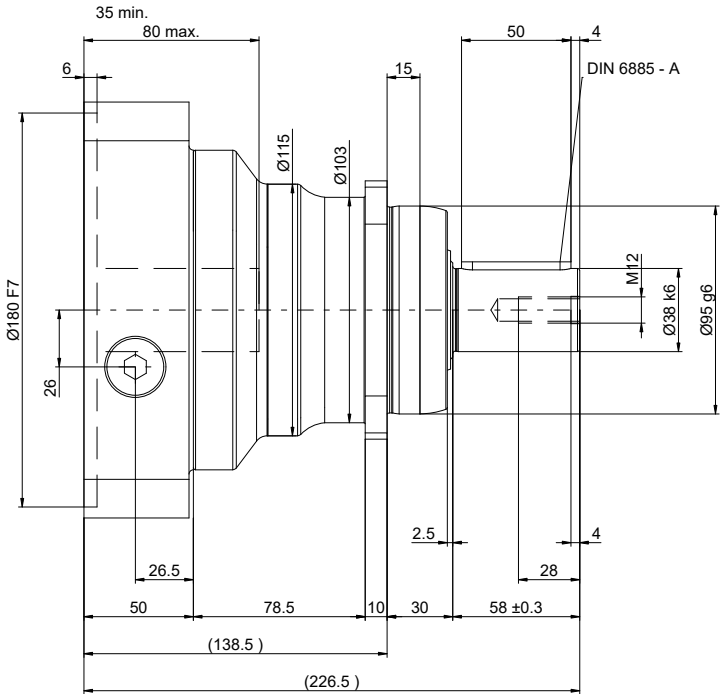
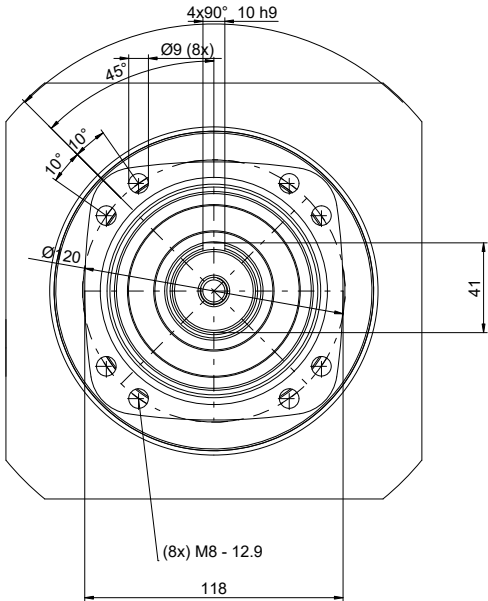
c) Refers to center of the output shaft or flange

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](http://www.wittenstein-alpha.de) / Operating manual on [www.wittenstein-alpha.de](http://www.wittenstein-alpha.de)

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

|  |  |                  |                                    |
|--|--|------------------|------------------------------------|
| gez/draft                                    |  | Masstab<br>Scale |                                    |
| Datum/date                                   |  | auto             |                                    |
| Eigentumsvorbehalt nach<br>DIN 34 beachten ! | Observe copyright note<br>according to DIN 34 !        |                  |                                    |
| Benenn.<br>Descr.                            | XP 030S-MF1- 4-1K1-2S                                  |                  |                                    |
| Kommentar<br>Note                            | Motor specified by user - compatibility check required |                  |                                    |
| MN   | 20026910   | DIN A3           | Ursp./Ref-Drwg: CAD-Generator V2.0 |
|  |  |                  | Blatt/Sheet: 1                     |



nicht vertraulich

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