

# DATORKER® Strain Wave Gear Technical Data

Date: 2026/1/5

|                                       |               |  |         |                                                                                     |
|---------------------------------------|---------------|--|---------|-------------------------------------------------------------------------------------|
| Specification                         | DTC-32-160-PE |  | Diagram |  |
| Model                                 | 32            |  |         |                                                                                     |
| Ratio                                 | 160           |  |         |                                                                                     |
| Item                                  |               |  | Value   | Unit                                                                                |
| Rated torque at input 2000rpm         |               |  | 96      | Nm                                                                                  |
| Average torque                        |               |  | 151     | Nm                                                                                  |
| Repeated peak torque                  |               |  | 261     | Nm                                                                                  |
| Momentary peak torque                 |               |  | 445     | Nm                                                                                  |
| Average input speed                   |               |  | 3500    | rpm                                                                                 |
| Maximum input speed                   |               |  | 4800    | rpm                                                                                 |
| Moment of inertia                     |               |  | 1.09    | x10 <sup>-4</sup> kgm <sup>2</sup>                                                  |
| Transmission accuracy                 |               |  | 1       | arc min                                                                             |
| Repeatability                         |               |  | ±6      | arc sec                                                                             |
| Maximum backlash                      |               |  | -       | arc sec                                                                             |
| Hysteresis loss                       |               |  | 1       | arc min                                                                             |
| Lost motion                           |               |  | 1       | arc min                                                                             |
| Torsional Stiffness K1                |               |  | 1.8     | kgfm/arc min                                                                        |
| Torsional Stiffness K2                |               |  | 2.3     | kgfm/arc min                                                                        |
| No load starting torque               |               |  | 15      | cNm                                                                                 |
| No load running torque(25°C/2000rpm)  |               |  | 35.8    | cNm                                                                                 |
| Weight                                |               |  | 2.4     | kg                                                                                  |
| Crossed roller bearing specifications |               |  |         |                                                                                     |
| Pitch circle diameter of roller       |               |  | 0.08    | m                                                                                   |
| Offset amount                         |               |  | 0.0144  | m                                                                                   |
| Basic dynamic load ratings            |               |  | 15      | kN                                                                                  |
| Basic static load ratings             |               |  | 25      | kN                                                                                  |
| Moment rigidity                       |               |  | 16      | kgfm/arc min                                                                        |
| Permissible dynamic tilting moment    |               |  | 313     | Nm                                                                                  |
| Permissible static tilting moment     |               |  | 471     | Nm                                                                                  |
| Permissible axial load                |               |  | 3.21    | kN                                                                                  |
| Permissible radial load               |               |  | 2.15    | kN                                                                                  |