

# DATORKER® Strain Wave Gear Technical Data

Date: 2024/11/20

| Specification                        | DGH-17-50-PO | Diagram |  |
|--------------------------------------|--------------|---------|-------------------------------------------------------------------------------------|
| Model                                | 17           |         |                                                                                     |
| Ratio                                | 50           |         |                                                                                     |
| Item                                 |              | Value   | Unit                                                                                |
| Rated torque at input 2000rpm        |              | 21      | Nm                                                                                  |
| Average torque                       |              | 34      | Nm                                                                                  |
| Repeated peak torque                 |              | 44      | Nm                                                                                  |
| Momentary peak torque                |              | 91      | Nm                                                                                  |
| Average input speed                  |              | 3500    | rpm                                                                                 |
| Maximum input speed                  |              | 7300    | rpm                                                                                 |
| Moment of inertia                    |              | 0.079   | x10 <sup>-4</sup> kgm <sup>2</sup>                                                  |
| Transmission accuracy                |              | 1.5     | arc min                                                                             |
| Repeatability                        |              | ±6      | arc sec                                                                             |
| Maximum backlash                     |              | 20      | arc sec                                                                             |
| Hysteresis loss                      |              | 2       | arc min                                                                             |
| Lost motion                          |              | 1       | arc min                                                                             |
| Torsional Stiffness K1               |              | 0.24    | kgfm/arc min                                                                        |
| Torsional Stiffness K2               |              | 0.32    | kgfm/arc min                                                                        |
| No load starting torque              |              | 6.7     | cNm                                                                                 |
| No load running torque(25°C/2000rpm) |              | 7.6     | cNm                                                                                 |
| Weight                               |              | 0.57    | kg                                                                                  |
| Permissible dynamic tilting moment   |              | 124     | Nm                                                                                  |
| Permissible axial load               |              | 2.222   | kN                                                                                  |
| Permissible radial load              |              | 1.489   | kN                                                                                  |