

# DATORKER® Strain Wave Gear Technical Data

Date: 2024/11/20

| Specification                        | DGH-20-120-AJ | Diagram |  |
|--------------------------------------|---------------|---------|-------------------------------------------------------------------------------------|
| Model                                | 20            |         |                                                                                     |
| Ratio                                | 120           |         |                                                                                     |
| Item                                 |               | Value   | Unit                                                                                |
| Rated torque at input 2000rpm        |               | 52      | Nm                                                                                  |
| Average torque                       |               | 64      | Nm                                                                                  |
| Repeated peak torque                 |               | 113     | Nm                                                                                  |
| Momentary peak torque                |               | 191     | Nm                                                                                  |
| Average input speed                  |               | 3500    | rpm                                                                                 |
| Maximum input speed                  |               | 6500    | rpm                                                                                 |
| Moment of inertia                    |               | 0.137   | 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               |               | 0.47    | kgfm/arc min                                                                        |
| Torsional Stiffness K2               |               | 0.75    | kgfm/arc min                                                                        |
| No load starting torque              |               | 9.3     | cNm                                                                                 |
| No load running torque(25°C/2000rpm) |               | 16.6    | cNm                                                                                 |
| Weight                               |               | 1.38    | kg                                                                                  |
| Permissible dynamic tilting moment   |               | 187     | Nm                                                                                  |
| Permissible axial load               |               | 3.119   | kN                                                                                  |
| Permissible radial load              |               | 2.09    | kN                                                                                  |