

# DATORKER® Strain Wave Gear Technical Data

Date: 2024/11/20

|                                      |               |  |         |                                                                                     |
|--------------------------------------|---------------|--|---------|-------------------------------------------------------------------------------------|
| Specification                        | DGH-40-120-AH |  | Diagram |  |
| Model                                | 40            |  |         |                                                                                     |
| Ratio                                | 120           |  |         |                                                                                     |
| Item                                 |               |  | Value   | Unit                                                                                |
| Rated torque at input 2000rpm        |               |  | 382     | Nm                                                                                  |
| Average torque                       |               |  | 586     | Nm                                                                                  |
| Repeated peak torque                 |               |  | 802     | Nm                                                                                  |
| Momentary peak torque                |               |  | 1530    | Nm                                                                                  |
| Average input speed                  |               |  | 3000    | rpm                                                                                 |
| Maximum input speed                  |               |  | 4000    | rpm                                                                                 |
| Moment of inertia                    |               |  | 9.28    | 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               |               |  | 3.8     | kgfm/arc min                                                                        |
| Torsional Stiffness K2               |               |  | 6       | kgfm/arc min                                                                        |
| No load starting torque              |               |  | 110     | cNm                                                                                 |
| No load running torque(25°C/2000rpm) |               |  | 168.3   | cNm                                                                                 |
| Weight                               |               |  | 7.7     | kg                                                                                  |
| Permissible dynamic tilting moment   |               |  | 849     | Nm                                                                                  |
| Permissible axial load               |               |  | 9.25    | kN                                                                                  |
| Permissible radial load              |               |  | 6.198   | kN                                                                                  |