

# DATORKER® Strain Wave Gear Technical Data

Date: 2024/11/20

|                                      |              |  |         |                                                                                     |
|--------------------------------------|--------------|--|---------|-------------------------------------------------------------------------------------|
| Specification                        | DGC-17-80-PO |  | Diagram |  |
| Model                                | 17           |  |         |                                                                                     |
| Ratio                                | 80           |  |         |                                                                                     |
| Item                                 |              |  | Value   | Unit                                                                                |
| Rated torque at input 2000rpm        |              |  | 29      | Nm                                                                                  |
| Average torque                       |              |  | 35      | Nm                                                                                  |
| Repeated peak torque                 |              |  | 56      | Nm                                                                                  |
| Momentary peak torque                |              |  | 109     | 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                     |              |  | 13      | arc sec                                                                             |
| Hysteresis loss                      |              |  | 1       | arc min                                                                             |
| Lost motion                          |              |  | 1       | arc min                                                                             |
| Torsional Stiffness K1               |              |  | 0.3     | kgfm/arc min                                                                        |
| Torsional Stiffness K2               |              |  | 0.4     | kgfm/arc min                                                                        |
| No load starting torque              |              |  | 4.4     | cNm                                                                                 |
| No load running torque(25°C/2000rpm) |              |  | 6.3     | cNm                                                                                 |
| Weight                               |              |  | 0.68    | kg                                                                                  |
| Permissible dynamic tilting moment   |              |  | 64      | Nm                                                                                  |
| Permissible axial load               |              |  | 1.13    | kN                                                                                  |
| Permissible radial load              |              |  | 0.757   | kN                                                                                  |