


## DATORKER® Strain Wave Gear Technical Data

Date: 2024/11/20

| Specification                        | DSC-14-80-PO | Diagram                           |  |
|--------------------------------------|--------------|-----------------------------------|---|
| Model                                | 14           |                                   |   |
| Ratio                                | 80           |                                   |   |
| Item                                 | Value        | Unit                              |   |
| Rated torque at input 2000rpm        | 7.8          | Nm                                |   |
| Average torque                       | 11           | Nm                                |   |
| Repeated peak torque                 | 23           | Nm                                |   |
| Momentary peak torque                | 47           | Nm                                |   |
| Average input speed                  | 3500         | rpm                               |   |
| Maximum input speed                  | 8500         | rpm                               |   |
| Moment of inertia                    | 0.033        | $\times 10^{-4}$ kgm <sup>2</sup> |   |
| Transmission accuracy                | 1.5          | arc min                           |   |
| Repeatability                        | ±6           | arc sec                           |   |
| Maximum backlash                     | 23           | arc sec                           |   |
| Hysteresis loss                      | 1            | arc min                           |   |
| Lost motion                          | 1            | arc min                           |   |
| Torsional Stiffness K1               | 0.14         | kgfm/arc min                      |   |
| Torsional Stiffness K2               | 0.18         | kgfm/arc min                      |   |
| No load starting torque              | 2.8          | cNm                               |   |
| No load running torque(25°C/2000rpm) | 3.7          | cNm                               |   |
| Weight                               | 0.52         | kg                                |   |
| Permissible dynamic tilting moment   | 41           | Nm                                |   |
| Permissible axial load               | 1.004        | kN                                |   |
| Permissible radial load              | 0.673        | kN                                |   |