


## DATORKER® Strain Wave Gear Technical Data

Date: 2024/11/20

| Specification                        | <b>DSC-40-80-PO-M</b> | Diagram                            |  |
|--------------------------------------|-----------------------|------------------------------------|---|
| Model                                | <b>40</b>             |                                    |   |
| Ratio                                | <b>80</b>             |                                    |   |
| Item                                 | Value                 | Unit                               |   |
| Rated torque at input 2000rpm        | <b>206</b>            | Nm                                 |   |
| Average torque                       | <b>284</b>            | Nm                                 |   |
| Repeated peak torque                 | <b>519</b>            | Nm                                 |   |
| Momentary peak torque                | <b>980</b>            | Nm                                 |   |
| Average input speed                  | <b>3000</b>           | rpm                                |   |
| Maximum input speed                  | <b>4000</b>           | rpm                                |   |
| Moment of inertia                    | <b>4.5</b>            | x10 <sup>-4</sup> kgm <sup>2</sup> |   |
| Transmission accuracy                | <b>1</b>              | arc min                            |   |
| Repeatability                        | <b>±6</b>             | arc sec                            |   |
| Maximum backlash                     | <b>9</b>              | arc sec                            |   |
| Hysteresis loss                      | <b>1</b>              | arc min                            |   |
| Lost motion                          | <b>1</b>              | arc min                            |   |
| Torsional Stiffness K1               | <b>3.8</b>            | kgfm/arc min                       |   |
| Torsional Stiffness K2               | <b>6</b>              | kgfm/arc min                       |   |
| No load starting torque              | <b>35</b>             | cNm                                |   |
| No load running torque(25°C/2000rpm) | <b>70.1</b>           | cNm                                |   |
| Weight                               | <b>6.9</b>            | kg                                 |   |
| Permissible dynamic tilting moment   | <b>886</b>            | Nm                                 |   |
| Permissible axial load               | <b>10.361</b>         | kN                                 |   |
| Permissible radial load              | <b>6.942</b>          | kN                                 |   |