

DATORKER® Strain Wave Gear Technical Data

Date: 2025/12/30

Specification	DTC-14-50-PE		Diagram	
Model	14			
Ratio	50			
Item			Value	Unit
Rated torque at input 2000rpm			3.7	Nm
Average torque			4.8	Nm
Repeated peak torque			12	Nm
Momentary peak torque			24	Nm
Average input speed			3500	rpm
Maximum input speed			8500	rpm
Moment of inertia			0.021	x10 ⁻⁴ kgm ²
Transmission accuracy			1.5	arc min
Repeatability			±6	arc sec
Maximum backlash			-	arc sec
Hysteresis loss			2.5	arc min
Lost motion			1	arc min
Torsional Stiffness K1			0.085	kgfm/arc min
Torsional Stiffness K2			0.11	kgfm/arc min
No load starting torque			4.4	cNm
No load running torque(25°C/2000rpm)			4.53	cNm
Weight			0.35	kg
Crossed roller bearing specifications				
Pitch circle diameter of roller			0.035	m
Offset amount			0.0095	m
Basic dynamic load ratings			4.7	kN
Basic static load ratings			6.1	kN
Moment rigidity			1.3	kgfm/arc min
Permissible dynamic tilting moment			41	Nm
Permissible static tilting moment			50	Nm
Permissible axial load			1.01	kN
Permissible radial load			0.674	kN