

DATORKER® Strain Wave Gear Technical Data

Date: 2025/12/30

Specification	DTC-20-50-PE		Diagram	
Model	20			
Ratio	50			
Item			Value	Unit
Rated torque at input 2000rpm			17	Nm
Average torque			24	Nm
Repeated peak torque			39	Nm
Momentary peak torque			69	Nm
Average input speed			3500	rpm
Maximum input speed			6500	rpm
Moment of inertia			0.09	x10 ⁻⁴ kgm ²
Transmission accuracy			1	arc min
Repeatability			±6	arc sec
Maximum backlash			-	arc sec
Hysteresis loss			2	arc min
Lost motion			1	arc min
Torsional Stiffness K1			0.32	kgfm/arc min
Torsional Stiffness K2			0.4	kgfm/arc min
No load starting torque			8.9	cNm
No load running torque(25°C/2000rpm)			11.9	cNm
Weight			0.65	kg
Crossed roller bearing specifications				
Pitch circle diameter of roller			0.05	m
Offset amount			0.0102	m
Basic dynamic load ratings			5.8	kN
Basic static load ratings			9	kN
Moment rigidity			3.8	kgfm/arc min
Permissible dynamic tilting moment			91	Nm
Permissible static tilting moment			130	Nm
Permissible axial load			1.24	kN
Permissible radial load			0.828	kN