

DATORKER® Strain Wave Gear Technical Data

Date: 2025/12/31

Specification	DTC-20-80-PE-M		Diagram	
Model	20			
Ratio	80			
Item			Value	Unit
Rated torque at input 2000rpm			24	Nm
Average torque			33	Nm
Repeated peak torque			51	Nm
Momentary peak torque			89	Nm
Average input speed			3500	rpm
Maximum input speed			6500	rpm
Moment of inertia			0.09	x10 ⁻⁴ kgm²
Transmission accuracy			1	arc min
Repeatability			±6	arc sec
Maximum backlash			-	arc sec
Hysteresis loss			1	arc min
Lost motion			1	arc min
Torsional Stiffness K1			0.4	kgfm/arc min
Torsional Stiffness K2			0.5	kgfm/arc min
No load starting torque			6.2	cNm
No load running torque(25°C/2000rpm)			10.3	cNm
Weight			0.94	kg
Crossed roller bearing specifications				
Pitch circle diameter of roller			0.07	m
Offset amount			0.0128	m
Basic dynamic load ratings			14.6	kN
Basic static load ratings			22	kN
Moment rigidity			7.5	kgfm/arc min
Permissible dynamic tilting moment			187	Nm
Permissible static tilting moment			264	Nm
Permissible axial load			3.12	kN
Permissible radial load			2.09	kN