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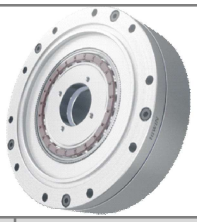
DATORKER® Strain Wave Gear Technical Data

Date: 2025/12/31

Specification	DTC-14-80-PE-M	Diagram	
Model	14		
Ratio	80		

Item	Value	Unit
Rated torque at input 2000rpm	5.4	Nm
Average torque	7.7	Nm
Repeated peak torque	16	Nm
Momentary peak torque	35	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	arc min
Lost motion	1	arc min
Torsional Stiffness K1	0.12	kgfm/arc min
Torsional Stiffness K2	0.13	kgfm/arc min
No load starting torque	3.8	cNm
No load running torque(25℃/2000rpm)	4.3	cNm
Weight	0.5	kg
Crossed roller bearing specifications		
Pitch circle diameter of roller	0.05	m
Offset amount	0.0118	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	131	Nm
Permissible axial load	1.24	kN
Permissible radial load	0.828	kN