

PRODUCT DATASHEET

ES-HG-S09-F50-R160

Precision Transmission Component

Hollow Shaft Harmonic Gearboxes | High-Torque Hollow Shaft Gear Unit

Product Overview

Precision Transmission Component with reduction Ratio 160, frame Size 50 and angular Transmission Accuracy 1 arcmin.

Key Specifications

PARAMETER	VALUE	UNIT
Reduction Ratio	160	
Frame Size	50	
Angular Transmission Accuracy	1	arcmin
Hysteresis Loss	1	arcmin
Torsional Rigidity K1	25	×10 ⁴ N·m/rad
Torsional Rigidity K2	40	×10 ⁴ N·m/rad
Torsional Rigidity K3	44	×10 ⁴ N·m/rad
Torsional Rigidity T1	108	N·m
Torsional Rigidity T2	382	N·m

Technical Specifications

PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Angular Transmission Accuracy	1	arcmin	Frame Size: 50; Reduction Ratio: 160; Reduction Ratio Min: 50; Size: 50
Hysteresis Loss	1	arcmin	Frame Size: 50; Reduction Ratio: 160; Reduction Ratio Min: 50; Size: 50
MECHANICAL			
Frame Size	50		Frame Size: 50; Reduction Ratio: 160; Size: 50
ADDITIONAL SPECIFICATIONS			
Reduction Ratio	160		Frame Size: 50; Reduction Ratio: 160; Size: 50
Torsional Rigidity K2	40	$\times 10^4$ Nm/rad	Frame Size: 50; Reduction Ratio: 160; Reduction Ratio Min: 50; Size: 50
Torsional Rigidity K1	25	$\times 10^4$ Nm/rad	Frame Size: 50; Reduction Ratio: 160; Reduction Ratio Min: 50; Size: 50
Torsional Rigidity K3	44	$\times 10^4$ Nm/rad	Frame Size: 50; Reduction Ratio: 160; Reduction Ratio Min: 50; Size: 50
Torsional Rigidity T2	382	Nm	Frame Size: 50; Reduction Ratio: 160; Reduction Ratio Min: 50; Size: 50
Torsional Rigidity T1	108	Nm	Frame Size: 50; Reduction Ratio: 160; Reduction Ratio Min: 50; Size: 50

Dimensional & Integration Overview

Mechanical Overview

PARAMETER	VALUE	UNIT
Frame Size	50	

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01 Specifications are subject to change without notice. Verify the current product configuration before final design release.

02 2D drawings, CAD files and integration documentation are controlled documents and are supplied separately on request.