PRODUCT DATASHEET

ES-HG-S29-F11-R80

Precision Transmission Component

Ultra-Thin Harmonic Gearboxes | Ultra-Short Gear Unit

Product Overview

Precision Transmission Component with reduction Ratio 80, frame Size 11 and angle Transmission Accuracy 2 arc min.

Key Specifications

PARAMETER	VALUE	UNIT
Reduction Ratio	80	
Frame Size	11	
Angle Transmission Accuracy	2	arc min
Wave Generator Bore U	φ5H7 / φ6H7	
Hysteresis Loss	2.5	arc min
Torsional Rigidity K1	0.073	×10⁴ N·m/rad
Torsional Rigidity K2	0.077	×10⁴ N·m/rad
Torsional Rigidity K3	0.1	×10⁴ N·m/rad
Torsional Rigidity T1	0.29	N·m

Technical Specifications

PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Angle Transmission Accuracy	2	arc min	Frame Size: 11; Ratio Bucket: >50; Reduction Ratio: 80; Reduction Ratio Min: 50; Size: 11
Hysteresis Loss	2.5	arc min	Frame Size: 11; Ratio Bucket: >50; Reduction Ratio: 80; Reduction Ratio Min: 50; Size: 11
MECHANICAL			
Frame Size	11		Frame Size: 11; Reduction Ratio: 80; Size: 11
Wave Generator Bore U	φ5H7 / φ6H7		Frame Size: 11; Option Label: Wave generator - A φ5; Reduction Ratio: 80; Wave Generator Option: wave-generator-9b68021d3e2c / Frame Size: 11; Option Index: 1; Option Label: Wave generator - A φ6; Reduction Ratio: 80; Wave Generator Option: wave-generator-4df7ad827c47
ADDITIONAL SPECIFICATIONS			
Reduction Ratio	80		Frame Size: 11; Reduction Ratio: 80; Size: 11
Torsional Rigidity K2	0.077	×10⁴ N·m/rad	Frame Size: 11; Ratio Bucket: >50; Reduction Ratio: 80; Reduction Ratio Min: 50; Size: 11; Source Condition: ratio>50
Torsional Rigidity K1	0.073	×10⁴ N·m/rad	Frame Size: 11; Ratio Bucket: >50; Reduction Ratio: 80; Reduction Ratio Min: 50; Size: 11; Source Condition: ratio>50
Torsional Rigidity K3	0.1	×10⁴ N·m/rad	Frame Size: 11; Ratio Bucket: >50; Reduction Ratio: 80; Reduction Ratio Min: 50; Size: 11; Source Condition: ratio>50
Torsional Rigidity T2	0.75	N·m	Frame Size: 11; Ratio Bucket: >50; Reduction Ratio: 80; Reduction Ratio Min: 50; Size: 11; Source Condition: all ratios
Torsional Rigidity T1	0.29	N·m	Frame Size: 11; Ratio Bucket: >50; Reduction Ratio: 80; Reduction Ratio Min: 50; Size: 11; Source Condition: all ratios

Dimensional & Integration Overview

Mechanical Overview

PARAMETER	VALUE	UNIT
Frame Size	11	
Wave Generator Bore U	φ5H7 / φ6H7	

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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.