PRODUCT DATASHEET

ES-HG-S27-F14-R50

Precision Transmission Component

Ultra-Thin Harmonic Gearboxes | Thin Cup Gear Unit

Product Overview

Precision Transmission Component with rated Torque 3.7 N·m, instantaneous Maximum Torque 24 N·m and start/Stop Peak Torque 12 N·m.

Key Specifications

PARAMETER	VALUE	UNIT
Rated Torque	3.7	N·m
Instantaneous Maximum Torque	24	N·m
Start/Stop Peak Torque	12	N·m
Reduction Ratio	50	
Backlash	≤20	arc sec
Maximum Input Speed	8500	r/min
Allowable Average Torque	4.8	N·m
Frame Size	14	
Weight	0.37	kg

Technical Specifications

PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Rated Torque	3.7	N·m	Frame Size: 14; Reduction Ratio: 50
Instantaneous Maximum Torque	24	N·m	Frame Size: 14; Reduction Ratio: 50
Start/Stop Peak Torque	12	N·m	Frame Size: 14; Reduction Ratio: 50
Backlash	≤20	arc sec	Frame Size: 14; Reduction Ratio: 50
Allowable Average Torque	4.8	N·m	Frame Size: 14; Reduction Ratio: 50
MECHANICAL			
Frame Size	14		Frame Size: 14; Reduction Ratio: 50
Weight	0.37	kg	Frame Size: 14; Reduction Ratio: 50
Wave Generator Dimension T	7+0.10 / 9.4+0.10	mm	Frame Size: 14; Option Label: Wave generator - A φ6; Reduction Ratio: 50; Wave Generator Option: wave-generator-4d941c778cf8 / Frame Size: 14; Option Index: 1; Option Label: Wave generator - A φ8; Reduction Ratio: 50; Wave Generator Option: wave-generator-dd7ad026bda9
Wave Generator Bore U	φ11H7 / φ8H7 / φ6H7		Varies by published configuration.
Wave Generator Keyway W	3P9/JS9 / 2P9/JS9		Frame Size: 14; Option Index: 1; Option Label: Wave generator - A φ8; Reduction Ratio: 50; Wave Generator Option: wave-generator-dd7ad026bda9 / Frame Size: 14; Option Label: Wave generator - A φ6; Reduction Ratio: 50; Wave Generator Option: wave-generator-4d941c778cf8
RELIABILITY			
Design Life	9000	h	Frame Size: 14; Reduction Ratio: 50
ADDITIONAL SPECIFICATIONS			
Reduction Ratio	50		Frame Size: 14; Reduction Ratio: 50
Maximum Input Speed	8500	r/min	Frame Size: 14; Reduction Ratio: 50
Average Input Speed	3500	r/min	Frame Size: 14; Reduction Ratio: 50

Dimensional & Integration Overview

Mechanical Overview

PARAMETER	VALUE	UNIT
Frame Size	14	
Weight	0.37	kg
Wave Generator Dimension T	7+0.10 / 9.4+0.10	mm
Wave Generator Bore U	φ11H7 / φ8H7 / φ6H7	
Wave Generator Keyway W	3P9/JS9 / 2P9/JS9	

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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.