

PRODUCT DATASHEET

ES-HG-S01-F14-R50

Precision Transmission Component

Harmonic Component Sets | Cup Component Set

Product Overview

Precision Transmission Component with rated Torque 5.4 N·m, instantaneous Maximum Torque 35 N·m and start/Stop Peak Torque 18 N·m.

Key Specifications

PARAMETER	VALUE	UNIT
Rated Torque	5.4	N·m
Instantaneous Maximum Torque	35	N·m
Start/Stop Peak Torque	18	N·m
Reduction Ratio	50	
Backlash	≤20	arc sec
Maximum Input Speed	8500	r/min
Allowable Average Torque	6.9	N·m
Frame Size	14	
Weight	0.09	kg

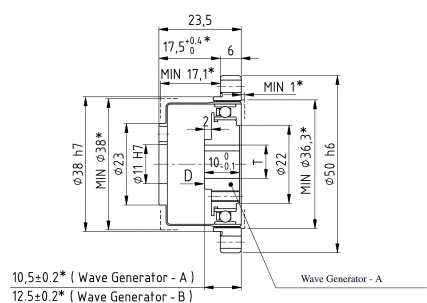
Technical Specifications

PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Rated Torque	5.4	Nm	Frame Size: 14; Reduction Ratio: 50
Instantaneous Maximum Torque	35	Nm	Frame Size: 14; Reduction Ratio: 50
Start/Stop Peak Torque	18	Nm	Frame Size: 14; Reduction Ratio: 50
Backlash	≤20	arc sec	Frame Size: 14; Reduction Ratio: 50
Allowable Average Torque	6.9	Nm	Frame Size: 14; Reduction Ratio: 50
MECHANICAL			
Frame Size	14		Frame Size: 14; Reduction Ratio: 50
Weight	0.09	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 ϕ 6; Reduction Ratio: 50; Wave Generator Option: wave-generator-39713db786bd / Frame Size: 14; Option Index: 1; Option Label: Wave generator - A ϕ 8; Reduction Ratio: 50; Wave Generator Option: wave-generator-e6e55a341aa3
Wave Generator Bore U	ϕ 6H7 / ϕ 8H7		Frame Size: 14; Option Label: Wave generator - A ϕ 6; Reduction Ratio: 50; Wave Generator Option: wave-generator-39713db786bd / Frame Size: 14; Option Index: 1; Option Label: Wave generator - A ϕ 8; Reduction Ratio: 50; Wave Generator Option: wave-generator-e6e55a341aa3
Wave Generator Keyway W	2JS9/P9 / 3JS9/P9		Frame Size: 14; Option Label: Wave generator - A ϕ 6; Reduction Ratio: 50; Wave Generator Option: wave-generator-39713db786bd / Frame Size: 14; Option Index: 1; Option Label: Wave generator - A ϕ 8; Reduction Ratio: 50; Wave Generator Option: wave-generator-e6e55a341aa3
RELIABILITY			
Design Life	10000	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

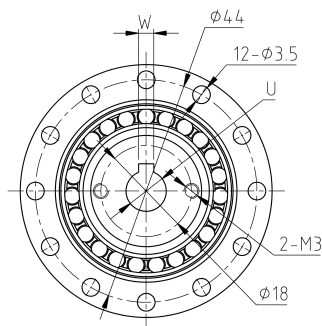
Mechanical Overview

PARAMETER	VALUE	UNIT
Frame Size	14	
Weight	0.09	kg
Wave Generator Dimension T	7+0.10 / 9.4+0.10	mm
Wave Generator Bore U	φ6H7 / φ8H7	
Wave Generator Keyway W	2JS9/P9 / 3JS9/P9	

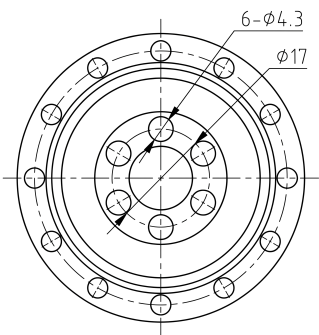
Dimensional Drawings



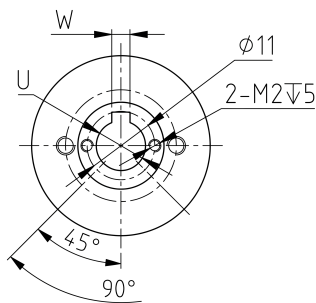
Mechanical View 1



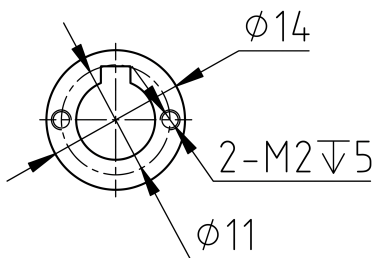
Mechanical View 2



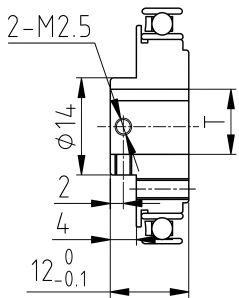
Mechanical View 3



Mechanical View 4



Mechanical View 5



Mechanical View 6

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Overall Length	23.5 mm
	Mounting Length with Tolerance	17.5 +0.4/0 mm
	End Section Length	6 mm
	Minimum Mounting Length	MIN 17.1 mm
	Minimum Step Height	MIN 1 mm
	Feature Count or Width	2 mm or 2x
	Inner Diameter with Tolerance	10 0/-0.1 mm
	Datum D	
	Parameter T	T (see specification table)
	Shaft Diameter h7 Fit	Φ38 h7
	Minimum Shaft Diameter	MIN Φ38 mm
	Internal Shaft Diameter	Φ23 mm
	Center Bore Diameter H7 Fit	Φ11 H7
	Internal Diameter	Φ22 mm
	Minimum Outer Diameter	MIN Φ36.3 mm
	Mounting Outer Diameter h6 Fit	Φ50 h6
	Wave Generator-A Variant Dimension	10.5±0.2 mm (Wave Generator-A)
	Wave Generator-B Variant Dimension	12.5±0.2 mm (Wave Generator-B)

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 2	Outer mounting circle diameter	Φ44
	Hole pattern: quantity and diameter	12 holes × Φ3.5
	Width dimension label	W (dimension label)
	Dimension label U	U (dimension label)
	Threaded hole specification and quantity	2 × M3 threaded holes
	Center hole diameter	Φ18
Mechanical View 3	Mounting hole quantity and diameter	6 holes, Φ4.3
	Bolt circle diameter (PCD)	Φ17
Mechanical View 4	Width	W (variable dimension)
	Center hole diameter	Φ11
	U dimension	U (variable dimension)
	Mounting threaded holes	2 holes, M2 thread, depth 5mm
	Angular positioning	45°
	Angular span	90°
Mechanical View 5	Outer diameter	Φ14
	Threaded hole specification and quantity	2 × M2 threaded holes, depth 5mm
	Center hole diameter	Φ11

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 6	Mounting threaded hole	2 holes M2.5 thread
	Shaft diameter	Ø14 mm
	Axial distance 1	2 mm
	Axial distance 2	4 mm
	Overall length with tolerance	12 mm (+0/-0.1)
	Datum reference	Datum T

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Specifications are subject to change without notice. Verify the current product configuration before final design release.
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2D drawings, CAD files and integration documentation are controlled documents and are supplied separately on request.