

PRODUCT DATASHEET

ES-HG-S01-F25-R160

Precision Transmission Component

Harmonic Component Sets | Cup Component Set

Product Overview

Precision Transmission Component with rated Torque 67 N·m, instantaneous Maximum Torque 314 N·m and start/Stop Peak Torque 176 N·m.

Key Specifications

PARAMETER	VALUE	UNIT
Rated Torque	67	N·m
Instantaneous Maximum Torque	314	N·m
Start/Stop Peak Torque	176	N·m
Reduction Ratio	160	
Backlash	≤20	arc sec
Maximum Input Speed	5600	r/min
Allowable Average Torque	108	N·m
Frame Size	25	
Weight	0.42	kg

Technical Specifications

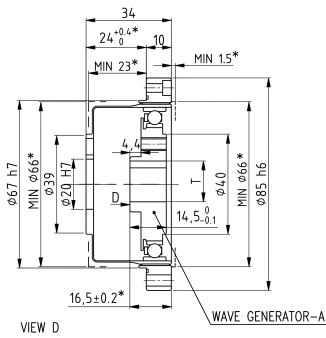
PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Rated Torque	67	N·m	Frame Size: 25; Reduction Ratio: 160
Instantaneous Maximum Torque	314	N·m	Frame Size: 25; Reduction Ratio: 160
Start/Stop Peak Torque	176	N·m	Frame Size: 25; Reduction Ratio: 160
Backlash	≤20	arc sec	Frame Size: 25; Reduction Ratio: 160
Allowable Average Torque	108	N·m	Frame Size: 25; Reduction Ratio: 160
MECHANICAL			
Frame Size	25		Frame Size: 25; Reduction Ratio: 160
Weight	0.42	kg	Frame Size: 25; Reduction Ratio: 160
Wave Generator Dimension T	16.3+0.10 / 12.8+0.10	mm	Frame Size: 25; Option Index: 1; Option Label: Wave generator - A φ14; Reduction Ratio: 160; Wave Generator Option: wave-generator-307ae5fd0846 / Frame Size: 25; Option Label: Wave generator - A φ11; Reduction Ratio: 160; Wave Generator Option: wave-generator-fd26f6670d9b
Wave Generator Bore U	φ14H7 / φ11H7		Frame Size: 25; Option Index: 1; Option Label: Wave generator - A φ14; Reduction Ratio: 160; Wave Generator Option: wave-generator-307ae5fd0846 / Frame Size: 25; Option Label: Wave generator - A φ11; Reduction Ratio: 160; Wave Generator Option: wave-generator-fd26f6670d9b
Wave Generator Keyway W	4JS9/P9 / 5JS9/P9		Frame Size: 25; Option Label: Wave generator - A φ11; Reduction Ratio: 160; Wave Generator Option: wave-generator-fd26f6670d9b / Frame Size: 25; Option Index: 1; Option Label: Wave generator - A φ14; Reduction Ratio: 160; Wave Generator Option: wave-generator-307ae5fd0846
RELIABILITY			
Design Life	15000	h	Frame Size: 25; Reduction Ratio: 160
ADDITIONAL SPECIFICATIONS			
Reduction Ratio	160		Frame Size: 25; Reduction Ratio: 160
Maximum Input Speed	5600	r/min	Frame Size: 25; Reduction Ratio: 160
Average Input Speed	3500	r/min	Frame Size: 25; Reduction Ratio: 160

Dimensional & Integration Overview

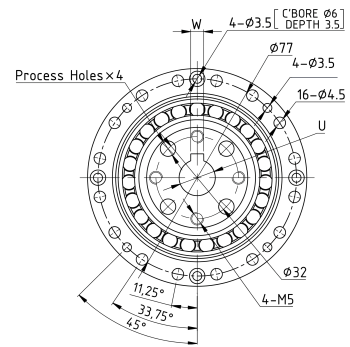
Mechanical Overview

PARAMETER	VALUE	UNIT
Frame Size	25	
Weight	0.42	kg
Wave Generator Dimension T	16.3+0.10 / 12.8+0.10	mm
Wave Generator Bore U	φ14H7 / φ11H7	
Wave Generator Keyway W	4JS9/P9 / 5JS9/P9	

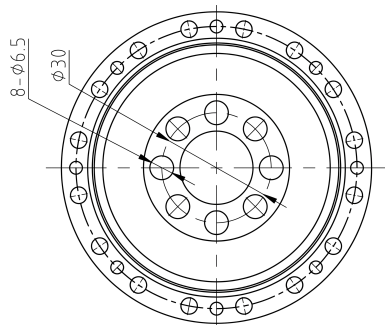
Dimensional Drawings



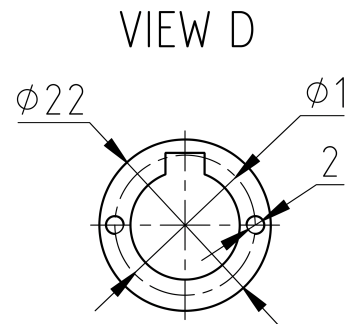
Mechanical View 1



Mechanical View 2



Mechanical View 3



Mechanical View 4

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Top overall width	34 mm
	Upper step length with unilateral tolerance	24 mm +0.4/0
	Upper right step length	10 mm
	Minimum clearance	Minimum 1.5 mm
	Minimum length	Minimum 23 mm
	Outer diameter fit	Diameter 67 h7
	Minimum outside diameter	Minimum diameter 66 mm
	Diameter dimension	Diameter 39 mm
	Bore diameter fit	Diameter 20 H7
	Small step width	4.4 mm
	D view or datum marker	D
	Diameter dimension	Diameter 40 mm
	Outer diameter fit	Diameter 85 h6
	Axial height with unilateral tolerance	14.5 mm +0/-0.1
	Bottom length with symmetric tolerance	16.5 mm $\pm$ 0.2
	Component label	Wave Generator-A
	T marker	T

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 2	Four counterbored holes	4 holes, through/pre-drill diameter $\Phi 3.5$, counterbore diameter $\Phi 6$, counterbore depth 3.5
	Width designation	Width designation W; numeric value not specified in this crop
	Outer diameter	Outer diameter $\Phi 77$
	Four diameter 3.5 holes	4 holes, diameter $\Phi 3.5$
	Process holes quantity	Process holes, quantity 4
	Sixteen diameter 4.5 holes	16 holes, diameter $\Phi 4.5$
	Feature designation U	Feature designation U; detailed value not specified in this crop
	Diameter 32	Diameter $\Phi 32$
	Angular spacing 11.25 degrees	11.25° angular dimension
	Four M5 threaded holes	4 × M5 threaded holes
	Angular spacing 33.75 degrees	33.75° angular dimension
	Angular spacing 45 degrees	45° angular dimension
Mechanical View 3	Mounting hole quantity and diameter	8 holes, diameter 6.5
	Central bore diameter	Diameter 30
Mechanical View 4	View identifier	View D
	Hole or circular feature diameter	Diameter 22 mm
	Local dimension value	2 mm

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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.