PRODUCT DATASHEET

ES-HG-S27-F25-R50

Precision Transmission Component

Ultra-Thin Harmonic Gearboxes | Thin Cup Gear Unit

Product Overview

Precision Transmission Component with rated Torque 27 N·m, instantaneous Maximum Torque 127 N·m and start/Stop Peak Torque 69 N·m.

Key Specifications

PARAMETER	VALUE	UNIT
Rated Torque	27	N·m
Instantaneous Maximum Torque	127	N·m
Start/Stop Peak Torque	69	N·m
Reduction Ratio	50	
Backlash	≤20	arc sec
Maximum Input Speed	5600	r/min
Allowable Average Torque	38	N·m
Frame Size	25	
Weight	1.2	kg

Technical Specifications

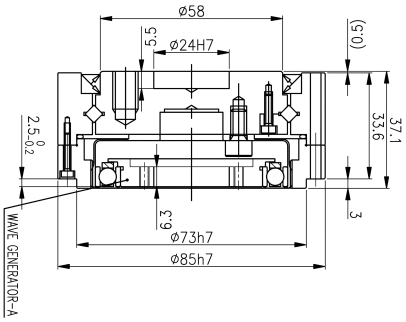
PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Rated Torque	27	N·m	Frame Size: 25; Reduction Ratio: 50
Instantaneous Maximum Torque	127	N·m	Frame Size: 25; Reduction Ratio: 50
Start/Stop Peak Torque	69	N·m	Frame Size: 25; Reduction Ratio: 50
Backlash	≤20	arc sec	Frame Size: 25; Reduction Ratio: 50
Allowable Average Torque	38	N·m	Frame Size: 25; Reduction Ratio: 50
MECHANICAL			
Frame Size	25		Frame Size: 25; Reduction Ratio: 50
Weight	1.2	kg	Frame Size: 25; Reduction Ratio: 50
RELIABILITY			
Design Life	9000	h	Frame Size: 25; Reduction Ratio: 50
ADDITIONAL SPECIFICATIONS			
Reduction Ratio	50		Frame Size: 25; Reduction Ratio: 50
Maximum Input Speed	5600	r/min	Frame Size: 25; Reduction Ratio: 50
Average Input Speed	3500	r/min	Frame Size: 25; Reduction Ratio: 50

Dimensional & Integration Overview

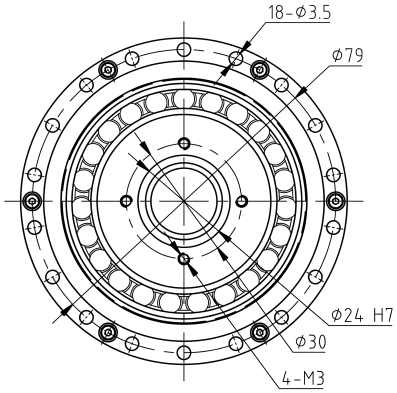
Mechanical Overview

PARAMETER	VALUE	UNIT
Frame Size	25	
Weight	1.2	kg

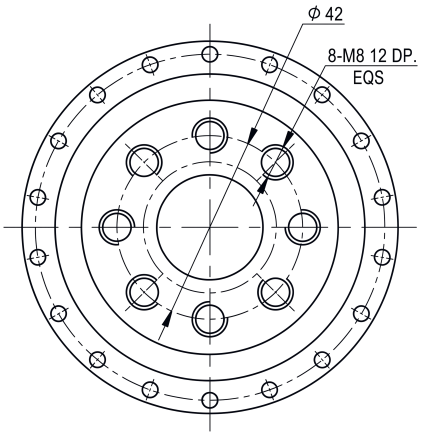
Dimensional Drawings



Mechanical View 1



Mechanical View 2



Mechanical View 3

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Upper outside diameter	Diameter 58
	Reference clearance	Reference dimension 0.5
	Local step dimension	5.5
	Bore diameter fit	Diameter 24 H7
	Local height dimension	33.6
		37.1
	Local dimension with unilateral tolerance	2.5 with upper deviation +0 and lower deviation -0.2
	Local width dimension	3
	Local height dimension	6.3
	Component label	Wave Generator-A
	Shaft or bearing fit diameter	Diameter 73 h7
		Diameter 85 h7
Mechanical View 2	18 holes diameter 3.5	18 × Φ3.5 holes
	Outer diameter	Φ79 outer diameter
	Central bore diameter and fit tolerance	Φ24 H7 bore
	Mounting locating diameter	Φ30 diameter
	4 M3 threaded holes	4 × M3 threaded holes

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 3	Mounting hole pitch circle diameter	Pitch circle diameter Φ42
	Threaded mounting hole specification and depth	8 × M8 threaded holes, 12 mm deep, equally spaced

View Product Online Request Engineering Data Request a Quote

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.