

NEWSPACE MARKET · COMPANY PROFILE



Harmonic Drive

United States · [harmonicdrive.net](https://www.harmonicdrive.net)

59

PRODUCTS

49

WITH DATASHEETS

newspacemarket.com/companies/harmonic-drive/

as of 27 August 2026



Harmonic Drive

Harmonic Drive manufactures precision servo actuators, gearheads, and gear component sets. Their products include rotary actuators (FHA-Mini, FHA-C, SHA-SG), integrated actuators (RSF-5B IDT, RSA-8A IDT, LPA Integrated Servo Drive), and gear units (CSF-2XH, CSG-2UH, SHG-2UH). They also produce component sets (CSG-2A, CSF-2A, FB-2), servo mount gearheads (HPN-A, HPGP, HPG), and miniature products like miniature gearheads and actuators.

This profile is generated from the live NewSpace Market catalogue. Specifications are as published by the manufacturer; every product links to a page where a request for quotation reaches the company directly.

PRODUCTS

Product catalogue



HARMONIC DRIVE
CSD-2A Component Set

The ultra-flat CSD precision gears are available in seven sizes, with ratios 50:1 to 100:1, designed for high precision applications like robotics in tight spaces.

Rated Torque L10	3.7 Nm
Limit for Repeated Peak Torque	12 Nm
Limit for Momentary Peak Torque	24 Nm
Backdriving Torque	2.5 Nm
Standard Accuracy	1.5 arc min
Mass	0.06 kg
K1 Torsional Stiffness	0.29 10^4 Nm / rad

price on request [datasheet](#)

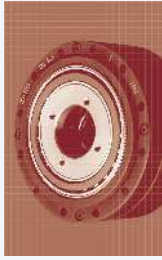


HARMONIC DRIVE
CSD-2UF Gear Unit

The CSD-2UF is a zero-backlash gear unit available in 6 sizes with ratios from 50:1 to 100:1, offering peak torques from 12 to 450 Nm.

Rated Torque L10	3.7 Nm
Limit for Repeated Peak Torque	12 Nm
Limit for Momentary Peak Torque	24 Nm
Backdriving Torque	2.5 Nm
Standard Accuracy	1.5 arc min
Mass	0.5 kg
K1 Torsional Stiffness	0.29 10^4 Nm / rad

price on request [datasheet](#)



HARMONIC DRIVE

CSD-2UH Gear Unit

This housed gear is compact and ultra-flat, available in 7 sizes with ratios from 50:1 to 100:1, offering zero backlash and high load capacity.

Reduction ratios	30:1 to 160:1
Rated Torque L10	3.7 Nm to 329 Nm
Limit for Repeated Peak Torque	12 Nm to 686 Nm
Limit for Momentary Peak Torque	24 Nm to 1,440 Nm
Backdriving Torque	2.5 Nm to 67 Nm
Standard Accuracy	1.5 arc min to 1 arc min
Mass	0.35 kg to 6.9 kg

[price on request](#) [datasheet](#)



HARMONIC DRIVE

CSF-1U-CC Miniature Gear Units

The CSF 1U-CC mini gearheads are designed for motor mounting with an adapter plate, offering shaft or flange output and zero backlash.

Zero backlash	Yes
High positioning accuracy	± 1.5 to 10 arc-min
Diameter	$\varnothing 13$ mm~52 mm
Mass	11.4 g~335 g
Tooth profile	S

[price on request](#) [datasheet](#)



HARMONIC DRIVE

CSF-1U-CC-F Miniature Gear Units

The CSF-1U-CC-F Miniature Gear Units offer zero backlash and high positioning accuracy in a very compact package, ideal for demanding space applications.

Zero backlash	Yes
High positioning accuracy	± 1.5 to 10 arc-min
Diameter	$\varnothing 21$ mm~52 mm
Mass	25 g~295 g
Tooth profile	S
Rated Torque at input speed 2000rpm	0.25 Nm
Limit for Momentary Peak Torque	0.5 Nm

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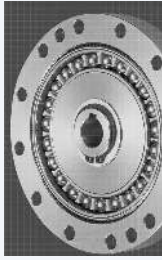
HARMONIC DRIVE

CSF-1U-F Miniature Gear Units

The CSF-1U-F Miniature Gear Unit is a compact gearhead from Harmonic Drive, featuring a flange output and shaft input, available in four sizes with reduction ratios from 30:1 to 10

Outline Dimensions	20 mm~51 mm
Reduction ratios	30:1~100:1
Peak Torque	0.13~28 Nm
Mass	35 g

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HARMONIC DRIVE

CSF-2A

The Harmonic Drive® CSF component set is compact and can be directly integrated into your machinery/equipment, available in a variety of sizes and ratios.

Rated Torque L10	0.9 Nm
Limit for Repeated Peak Torque	1.8 Nm
Limit for Momentary Peak Torque	3.3 Nm
Backdriving Torque	0.65 Nm
Standard Accuracy	2 arc min
Mass	0.02 kg
K1 Torsional Stiffness	$0.03 \cdot 10^4 \text{ Nm / rad}$

[price on request](#) [datasheet](#)



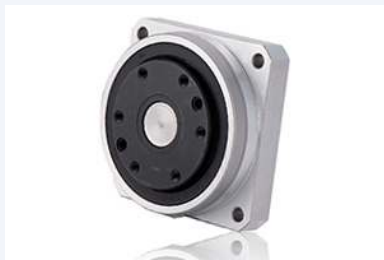
HARMONIC DRIVE

CSF-2UH-LW Gear Unit

The CSF-2UH-LW Gear Unit is a lightweight gearhead ideal for applications where weight is a critical factor, offering exceptional accuracy and repeatability in a compact and robust

Zero Backlash	Yes
Weight Reduction	30% average lower than Standard Series
Peak Torque	9 Nm to 2600 Nm
Reduction Ratios	30:1 to 160:1
Accuracy	High
Output Bearing	High load capacity

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HARMONIC DRIVE

CSF-2UP

These new gear units have an ultra-flat configuration with high-moment stiffness, ideal for applications requiring smaller, space-saving components.

[price on request](#)



HARMONIC DRIVE

CSF-2UP Ultra Flat Gearhead

The CSF-2UP gear units are the newest models in the CSF mini-series lineup, featuring an ultra-flat configuration with high-moment stiffness.

Ratios	30:1 to 100:1
CSF-8-30-2UP Mass	0.2 kg
CSF-8-50-2UP Mass	0.2 kg
CSF-8-100-2UP Mass	0.2 kg
CSF-11-30-2UP Mass	0.33 kg
CSF-11-50-2UP Mass	0.33 kg
CSF-11-100-2UP Mass	0.33 kg

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HARMONIC DRIVE

CSF-2XH Miniature Gear Units

The CSF-2XH miniature gearheads are designed to couple directly to any servomotor, offering zero backlash and high positioning accuracy in a compact package.

Gear Ratios	30:1 to 100:1
Peak Torque	0.5~28 Nm
Positioning Accuracy	± 1.5 to 10 arc-min
Diameter	22 mm~53 mm
Output	Flange (F) or Shaft (J)
Series	CSF
Model	2XH-J

[price on request](#) [datasheet](#)



HARMONIC DRIVE

CSF-8-30-1U-CC-F Miniature Gear Units

This miniature gearhead features a flange output, designed for direct coupling to high-performance small servomotors.

Series	CSF
Size	8
Ratio	30
Type	1U-CC-F
Rated Torque L10	0.9 Nm
Limit for Average Torque	1.4 Nm
Limit for Repeated Peak Torque	1.8 Nm

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HARMONIC DRIVE

CSF-GH Harmonic Drive® gearhead

Zero-backlash CSF-GH Harmonic Drive® gearheads are available with reduction ratios from 50:1 to 160:1, utilizing a proprietary S tooth profile for high torque and accuracy.

Peak Torque	18 Nm to 2,630 Nm
Ratios	50:1 to 160:1
Accuracy	<1 arc-min
Repeatability	±4 to ±10 arc-sec
Available Sizes	5
Output Bearing	Cross Roller

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HARMONIC DRIVE

CSG-2A Component Set

Harmonic Drive® CSG Series gearing component sets are second generation cup-type component sets, ideal for high torque applications.

Peak Torque	23 Nm to 3419 Nm
Zero Backlash	Yes
High Accuracy	Yes
High load capacity output bearing	Yes
Lightweight versions also available	Yes
Rated Torque at 2000rpm	87 Nm
Limit for Repeated Peak Torque	204 Nm

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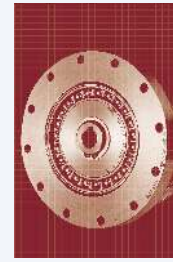
HARMONIC DRIVE

CSG-2UH Zero Backlash Gear Unit

The CSG-2UH is a high torque housed component gear set combined with a precision cross roller output bearing & flange, offering a compact, robust, and easy-to-use gearhead solu

Peak Torque	23 Nm to 3419 Nm
Accuracy	<1 arc-min
Reduction ratios	30:1 to 160:1
Rated Torque L10	7 Nm to 1236 Nm
Limit for Repeated Peak Torque	23 Nm to 3419 Nm
Limit for Momentary Peak Torque	46 Nm to 6175 Nm
Backdriving Torque	1.8 Nm to 198 Nm

[price on request](#) [datasheet](#)



HARMONIC DRIVE

CSG-2UH-LW Gear Unit

A lightweight, high-torque gear unit with zero backlash, ideal for applications where weight is a critical factor.

Peak Torque	23 Nm to 3419 Nm
Reduction ratios	30:1 to 160:1
Standard Accuracy	1 arc min
Series	CSG
Model	2UH-LW

[price on request](#) [datasheet](#)



HARMONIC DRIVE

CSG-GH

Harmonic Drive® CSG-GH gearheads offer zero-backlash, 30% higher torque, and 42% longer life than standard models, featuring a proprietary S tooth profile and Quick Connect® coupli

Peak Torque	23 Nm to 3,419 Nm
Ratios	50:1 to 160:1
Accuracy	<1 arc-min
Repeatability	±4 to ±10 arc-sec
Frame Sizes	5
Mass	1.8 kg
Rated Torque at 2000 rpm	33 Nm

[price on request](#) [datasheet](#)



HARMONIC DRIVE

DDP Servo Drive

The DDP Servo Drive is a compact and versatile DC digital servo drive designed for precise motion control in various applications, including those requiring incremental encoder fee

Supply Voltage (DDP-090-09)	DC24V
Supply Voltage (DDP-090-18, DDP-090-36)	DC48 to 90 V
Control Modes	Indexer, Point-to-Point, PVT, Camming, Gearing, Position, Velocity, Torque
Command Interface	CANopen/DeviceNet, ASCII and discrete I/O, Stepper commands, ±10 V position/velocity/torqu
Communications	CANopen/DeviceNet, RS-232
I/O – Digital	12 inputs, 3 outputs
Dimensions	168 x 99 x 31 mm [6.6 x 3.9 x 1.2 in]

[price on request](#) [datasheet](#)

HARMONIC DRIVE

Direct Drive and Hollow Shaft Motors

Harmonic Drive offers reliable direct drive and hollow shaft motor options to support manufacturing processes in numerous industries, including robotics, medical devices, automotive

Positioning accuracy	10 arc-sec
Repeatability	±0.5 arc-sec
Resolution	0.16 arc-sec
Frame sizes	5

[price on request](#)



HARMONIC DRIVE

FB-2 Component Gear Set

The FB-2 Component Gear Set offers high ratio, in-line mechanical power transmissions in extremely compact configurations, making it easier to use than conventional gearing.

Mass	0.1 kg
Gear Backlash	< 3 arc min
Rated torque at 2000rpm (oil lubricant)	14 Nm
Rated torque at 2000rpm (grease lubricant)	18 Nm
Max. Repeated Peak Torque (oil lubricant)	18 Nm
Max. Repeated Peak Torque (grease lubricant)	18 Nm
Max. Load Torque	34 Nm

[price on request](#)

[datasheet](#)



HARMONIC DRIVE

FB-32-157-2-GR Flat Component Set

The FB-32-157-2-GR is a flat component set from Harmonic Drive, consisting of a wave generator, flexspline, circular spline, and dynamic spline, designed for precise motion control

Rated Torque L10	82 Nm
Limit for Average Torque	118 Nm
Limit for Repeated Peak Torque	157 Nm
Limit for Momentary Peak Torque	235 Nm
Ave. Input Speed	2,300 rpm
Gear Backlash	< 3 arc min
Mass	1 kg

[price on request](#)

[datasheet](#)



HARMONIC DRIVE

FBB Phasing Differential

FBB gear sets allow easy and direct phasing of rotating elements and are ideally suited for web presses and other machines requiring constant monitoring and adjustment while they a

Maximum Input RPM (Oil)	6000
Maximum Input RPM (Grease)	3500
Rated Torque @ 1750 RPM (lb-in)	246 - 3180
Rated Torque @ 1750 RPM (Nm)	28 - 359
Maximum Output Torque (lb-in)	250 - 5800
Maximum Output Torque (Nm)	28 - 655
No Load Starting Torque (in-oz)	4.5 - 50

[price on request](#)

[datasheet](#)



HARMONIC DRIVE

FD-0A Phasing Differential

The FD series is an extremely compact differential unit that allows you to fine-tune the phase and timing during operation.

Mass(kg) 20	2.0
Mass(kg) 25	2.6
Mass(kg) 32	5.0
Mass(kg) 40	8.3
Mass(kg) 50	17
Mass(kg) 65	34
Mass(kg) 80	59

[price on request](#) [datasheet](#)



HARMONIC DRIVE

FD-2A Differential Gear

The FD series is an extremely compact differential unit that allows you to fine-tune the phase and timing during operation.

Mass (Size 20)	0.6 kg
Mass (Size 25)	1.0 kg
Mass (Size 32)	2.0 kg
Mass (Size 40)	3.6 kg
Mass (Size 50)	7.2 kg
Mass (Size 65)	14 kg
Mass (Size 80)	26 kg

[price on request](#) [datasheet](#)



HARMONIC DRIVE

FHA-C

Super-flat hollow shaft actuators with high torque, high positioning accuracy and high torsional stiffness, ideal for various space applications.

Peak torque	39~820 Nm
Max speed	22~96 rpm

[price on request](#)



HARMONIC DRIVE

FHA-C LW Mini

The FHA-C Lightweight Mini is a compact, flat-profile actuator designed for applications where every gram and every millimeter matter.

[price on request](#)



HARMONIC DRIVE

FHA-Mini Actuator with Integrated Servo Drive

The FHA-C mini Series is a family of extremely compact actuators that deliver high torque with exceptional accuracy and repeatability, now available with an integrated servo drive

Supply Voltage Range	24VDC Nominal +7 to 28VDC
Output Sensing Encoder Resolution	14bit (16384 cpr)
Input Sensing Encoder Resolution	15bit (32768 cpr)
Safety Standard	EN60034-1:2010, EN60034-5
One-way Positioning Accuracy (FHA-8C)	150 arc-sec
Allowable Moment Load (FHA-8C)	15 Nm
Mass (FHA-8C)	0.41 kg

[price on request](#)



HARMONIC DRIVE

FHA-Mini Compact Hollow Shaft Servo Actuator

The FHA-C Mini Series is a family of extremely compact Actuators that deliver high torque with exceptional accuracy and repeatability, combining a high precision Harmonic Drive® ge

Maximum Torque (FHA-14C, 100)	28 N.m
Maximum Speed	200 rpm
Positioning Accuracy	90 arc-sec
Maximum Moment Load (FHA-14C)	75 Nm
Moment Stiffness (FHA-14C)	8×10^4 Nm/rad
Encoder Type	Incremental, Absolute, Dual Absolute
Mass (FHA-14C Incremental)	1.2 kg

[price on request](#)

[datasheet](#)



HARMONIC DRIVE

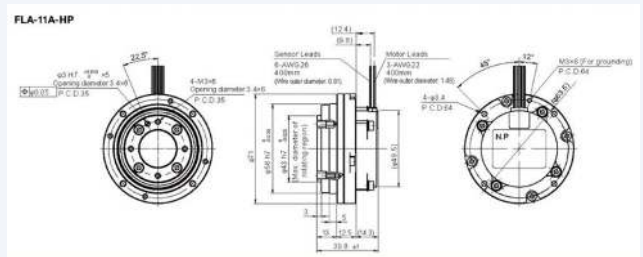
FHA-Mini Dual Encoder Compact Servo Actuator

Introducing Dual Absolute encoder versions of the FHA-C mini actuator, featuring BiSS-C bi-directional communication for both encoders within the same compact package size as the s

Output Encoder Resolution	14bit (16384 cpr)
Input Encoder Resolution	14bit (16384 cpr)
Encoder Communication	BiSS-C bi-directional
Compatible Drive	Copley Controls BEL or BPL
Encoder Voltage Range	4.75-30 V
Gear Type	Harmonic Drive® CSF zero backlash gear
FHA-8C Mass (Dual ABS)	0.40 kg

[price on request](#)

[datasheet](#)



HARMONIC DRIVE

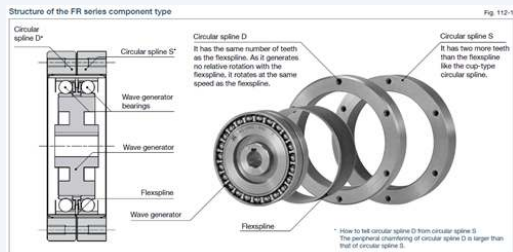
FLA Ultra-Flat Rotary Actuator

The FLA Ultra-Flat Rotary Actuator combines high-precision/high-performance reducers with a compact, high-output brushless DC motor, ideal for applications like AGV wheel drives an

Gear Ratio (HP)	8, 9
Maximum Torque (HP)	1.8 - 12.1 Nm
Maximum Speed (HP)	400 - 500 rpm
Weight (HP)	390 - 1,060 g
Gear Ratio (FB)	50, 100
Maximum Torque (FB)	6.7 - 34 Nm
Maximum Speed (FB)	50 - 100 rpm

[price on request](#)

[datasheet](#)



HARMONIC DRIVE

FR-2 Pancake Gear

The FR-2 Pancake Gear is a heavy-duty component set designed for maximum reduction ratio in minimum space, offering low backlash and simple installation.

Gear Backlash	< 1.5 arc min
Series	FR
Mass	0.5 kg
Max. Input Speed	6000 rpm
Limit for Average Input Speed	3600 rpm
Rated Input Speed	2500 rpm
Dimensions ØA	70 mm

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HARMONIC DRIVE

Helical Rack and Pinion Gear Set

Harmonic Drive engineers and manufactures high-precision rack and pinion gears for converting rotational movement into linear motion, utilizing cutting-edge technology and extensiv

Helix angle	19.5283°
Rack heat treatment	Induction hardened and ground
Rack Module 2 Length	500 mm, 1000 mm
Rack Module 3 Length	500 mm, 1000 mm
Pinion heat treatment	Carburized and ground
Pinion Module 2 Number of teeth	35, 40, 45
Pinion Module 3 Number of teeth	31, 35, 40

[price on request](#) [datasheet](#)



HARMONIC DRIVE

HarmonicGrease®

HarmonicGrease® is a high-quality lubrication specifically formulated to optimize the performance and extend the life of Harmonic Drive gears, reducing friction and corrosion.

SK-1A Temperature	0°C to + 40°C
SK-1A Size Compatibility	Size 20 and larger
SK-2 Temperature	0°C to + 40°C
SK-2 Size Compatibility	Size 17 and smaller
SK-3 Temperature	0°C to + 40°C
SK-3 Size Compatibility	Size 20 and larger
4B No.2 Temperature	-10°C to + 70°C

[price on request](#)



HARMONIC DRIVE

HPG Harmonic Planetary® Precision Gearbox – Right Angle

The HPG-RA Harmonic Planetary® gearhead delivers high-torque and high-accuracy in a compact Right Angle design, incorporating continuous backlash compensation for consistent low ba

Peak Torque	150 Nm to 2,200 Nm
Ratios	5:1 to 50:1
Backlash	<3 arc-min
Frame Sizes	3
Rated Torque L10	66 Nm (min) to 800 Nm (max)
Rated Torque L50	120 Nm (min) to 1,650 Nm (max)
Limit for Repeated Peak Torque	150 Nm (min) to 2,200 Nm (max)

[price on request](#) [datasheet](#)



HARMONIC DRIVE

HPG Planetary Gearbox

The HPG-A Harmonic Planetary® gearhead delivers high-torque and high-accuracy in a compact package, featuring continuous backlash compensation and a large Cross Roller bearing for

Peak Torque	5 Nm to 3,200 Nm
Ratios	3:1 to 50:1
Backlash	<3 arc-min (<1 arc-min available as an option)
Repeatability	±20 arc-sec
Available Frame Sizes	Six
Efficiency	Up to 95%
Accuracy	±30 arc sec (Size 11, Ratio 21)

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HARMONIC DRIVE

HPG-U1 Planetary Gear

The HPG-U1 Planetary Gearhead offers high performance with an input shaft for shaft couplings or belt drives, incorporating continuous backlash compensation for consistent low back

Peak Torque	5 Nm to 3,200 Nm
Ratios	3:1 to 50:1
Backlash	<3 arc-min
Frame Sizes	6
Max. Input Speed	10,000 rpm
Rated Torque L10	2.5 Nm to 870 Nm
Rated Torque L50	5 Nm to 1,650 Nm

[price on request](#) [datasheet](#)



HARMONIC DRIVE

HPGP Planetary Gearbox

The HPGP Harmonic Planetary® gearhead uses four planet gears to deliver high torque and high accuracy in a compact package, incorporating continuous backlash compensation for low b

Peak Torque	12 Nm to 3,940 Nm
Ratios	4:1 to 45:1
Backlash	<3 arc-min
Repeatability	±20 arc-sec
Rated Torque L10	3.4 Nm to 1,130 Nm
Rated Torque L50	6.6 Nm to 1,900 Nm
Limit for Repeated Peak Torque	12 Nm to 3,940 Nm

[price on request](#) [datasheet](#)



HARMONIC DRIVE

HPN-A Planetary Gearbox

The HPN Harmonic Planetary® Value Series Gearbox offers a low-cost solution with high torque, quiet performance, and long life, without compromising on quality.

Peak torque	9 Nm to 752 Nm
Ratios	3:1 to 50:1
Backlash	<5 arc-min (single stage), <7 arc-min (two stage)
Frame Sizes	5
Max. Input Speed	10,000 rpm
Mass	0.44 kg (HPN-11A-4)
K1 Torsional Stiffness	0.2 10 ⁴ Nm / rad (HPN-11A-4)

[price on request](#) [datasheet](#)



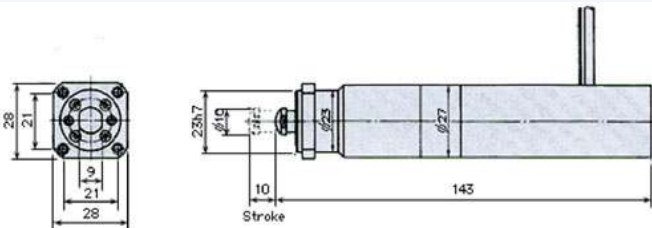
HARMONIC DRIVE

HPN-L Planetary Gearbox

The HPN-L Harmonic Planetary® value series gearbox offers a cost-effective solution without compromising on quality or performance, featuring helical gears for high torque, quiet o

Peak torque	9 Nm to 752 Nm
Ratios	3:1 to 50:1
Backlash (single stage)	<5 arc-min
Backlash (two stage)	<7 arc-min
Frame Sizes	5
Efficiency	Up to 97%
Noise	< 56 dB

[price on request](#) [datasheet](#)



HARMONIC DRIVE

LA Precision Linear Actuator

The LA Precision Linear Actuator offers exceptional positioning accuracy and repeatability, making it ideal for demanding applications in various high-tech industries.

Max. driving force	49N (5kgf)
Resolution	0.0174μm
Stroke	10 mm, 30 mm
Maximum feed speed	0.9 mm/s
Repeatability	±0.1μm/1 mm stroke
Lost motion	5μm/1 mm stroke
Mass (LA-30B-10-F)	320 g

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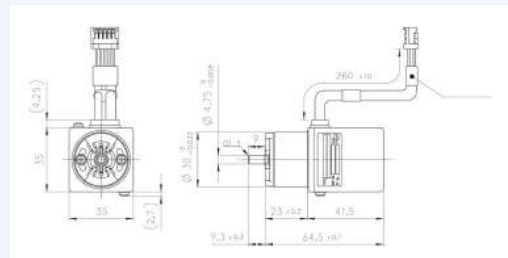
HARMONIC DRIVE

KDU Direct Drive

The KDU Series are Direct Drive Motors designed for high-precision positioning and repeatability, featuring a large hollow shaft for versatile integration.

Maximum torque (KDU-13SB)	7.0 Nm (62.0 In.lb)
Maximum torque (KDU-13WB)	15.0 Nm (132.8 In.lb)
Maximum rotational speed (KDU-13SB)	180 rpm
Maximum rotational speed (KDU-13WB)	160 rpm
Input power supply voltage	AC100 V
Moment of inertia (KDU-13SB)	0.0047 kg·m²
Moment of inertia (KDU-13WB)	0.0065 kg·m²

[price on request](#) [datasheet](#)



HARMONIC DRIVE

Laser Scanning Actuator

Harmonic Drive manufactures galvanometer scanner actuators capable of scanning at high speeds with intense precision, utilizing unique mobile magnet motors and a newly developed op

Item/model	LSA-10A-30
Maximum angular runout	±15 deg
Torque constant	0.0077 N·m/A (0.0668 In.lb/A)
Sensor Linearity (on full scale)	±0.06 %
Scale drift	0.005 %/°C
Position reproducibility (offset and scale drift excluded)	5 μrad
Mass	180 g

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HARMONIC DRIVE

Micro Encoder

Super compact incremental encoders available in micro and ultra-micro models for precision motion control.

Ultra-micro model (MES-6) Dimensions	ø7.5 x 10.5 mm
Ultra-micro model (MES-6) Line Count	360
Micro model (MES-9/MEH-9) Dimensions	ø13 x 20 mm
Micro model (MES-9/MEH-9) Line Count	1000
Power supply	DC5V±10%
Max. response frequency	100 kHz
Permissible Max. revolutions (Mechanical)	6000r/min

[price on request](#) [datasheet](#)



HARMONIC DRIVE

Phase Adjusters

Harmonic Drive's phase adjusters are high-precision phasing differential gears designed to fine-tune phase and timing during equipment operation, ideal for demanding applications i

Torque range	500 in-lb to 20,000 in-lb
Adjustment ratio	100:1

[price on request](#)



HARMONIC DRIVE

Precision Component Sets

Harmonic Drive's precision component sets are core motion control mechanisms, offering zero-backlash performance and design flexibility for various applications.

Accuracy	<1 arc-min
Torque (SHF-2A)	9.0 ~ 1800 Nm
Torque (SHG-2A)	23 ~ 3400 Nm

[price on request](#)



HARMONIC DRIVE

REL Servo Drive

The REL Servo Drive offers a versatile command interface and supports various encoder types, making it suitable for a wide range of motion control applications.

Command Interface	CANopen over EtherCAT (CoE), ASCII and discrete I/O, Stepper commands, ±10 V position/velo
Control Modes	Indexer, Point-to-Point, PVT, Camming, Gearing, Position, Velocity, Torque
Encoder Interface	14 wire Incremental Encoder, 4 wire Incremental Encoder, Absolute Encoder
Communications	EtherCAT, RS-232, RS-485 (Optional)
I/O – Digital	15 inputs, 6 outputs
I/O – Analog	2, 16 bit inputs; 1, 12 bit output
Dimensions	202 x 139 x 52 mm

[price on request](#) [datasheet](#)



HARMONIC DRIVE

RH Mini Actuator

The RH Mini Series is a DC servo actuator that incorporates Harmonic Drive® precision gears, a high-performance brush DC servomotor, and an incremental encoder.

Mass	0.09 kg (RH-5A)
Mass (2)	0.3 kg (RH-8D)
Mass (3)	0.5 kg (RH-11D)
Mass (4)	0.77 kg (RH-14D)
Maximum momentary torque (RH-5A)	0.39 N·m
Rated torque (RH-5A)	0.16 N·m
Max. rotational speed (RH-5A)	180 rpm

[price on request](#) [datasheet](#)



HARMONIC DRIVE

RKF Actuator

The RKF series is a compact servo actuator combining a zero backlash Harmonic Drive® gear and an AC servo motor, designed for operation with a wide range of third-party drives.

Mass (RKF-20A)	2.9 kg
Mass (RKF-25A)	5.0 kg
Mass (RKF-32A)	9.5 kg
One-way Positioning accuracy	90 arc.sec
Encoder type	Incremental encoder
Encoder resolution	200 - 2000p/rev
Time rating	Continuous

[price on request](#) [datasheet](#)



HARMONIC DRIVE

RSF Actuator

The RSF series servo actuator combines a high performance brushless servomotor with a high accuracy Harmonic Drive® gearhead, delivering precise, reliable motion control for high t

Rated Output (RSF-17A, Ratio 50)	62 W
Rated Output (RSF-17A, Ratio 100)	62 W
Rated Torque (RSF-17A, Ratio 50)	9.8 Nm
Rated Torque (RSF-17A, Ratio 100)	20 Nm
Rated Rotational Speed (RSF-17A, Ratio 50)	60 rpm
Rated Rotational Speed (RSF-17A, Ratio 100)	30 rpm
Mass (RSF-17A)	2.1 Kg

[price on request](#) [datasheet](#)

HARMONIC DRIVE

RSF-Mini

These brushless servo actuators utilize zero backlash Harmonic Drive® precision gears with an AC servomotor, ideal for small robot joints and semiconductor/LCD manufacturing equipm

Model	RSF-8B, RSF-11B, RSF-14B
Gear Ratio	30, 50, 100
Max. Torque (RSF-14B, 100)	28 N.m (248 In.lb)
Maximum Speed of Rotation	60-200 rpm
Max. Continuous Torque (RSF-14B, 100)	6.0 N.m (53.1 In.lb)
One-way Positioning Accuracy	120-180 arc/sec
Quad Encoder Resolution	120,000-400,000 counts/rev

[price on request](#) [datasheet](#)

HARMONIC DRIVE

RSF-Supermini Brushless Servo Actuator

These extremely small servo actuators utilize zero backlash Harmonic Drive® precision gears, a brushless servo motor and an incremental encoder to deliver precision motion control.

Rated Torque (RSF-3C, 30)	0.03 Nm
Rated Torque (RSF-3C, 50)	0.07 Nm
Rated Torque (RSF-3C, 100)	0.11 Nm
Rated Torque (RSF-5B, 30)	0.18 Nm
Rated Torque (RSF-5B, 50)	0.29 Nm
Rated Torque (RSF-5B, 100)	0.44 Nm
Mass (RSF-3C, Without Brake)	31.0 g

[price on request](#) [datasheet](#)



HARMONIC DRIVE

Servo Drives

Harmonic Drive provides digital servo drives for brushless (AC) and brush (DC) actuators, compatible with various communication protocols and motor OEM encoder formats.

Power 4 kW

[price on request](#)



HARMONIC DRIVE

Servo Mount Gearheads

Harmonic Drive offers easy-to-connect gearheads with a range of gear ratios and torque capacities, available as planetary or harmonic gearheads.

Planetary Gearbox backlash (standard)	< 3 arc-min
Planetary Gearbox backlash (optional)	<1 arc-min
Harmonic Drive® gearing repeatability	±4 to ±10 arc-sec
HPGP Planetary Gearbox Peak Torque	12 Nm to 3,940 Nm
HPG Planetary Gearbox Repeatability	±20 arc-sec
HPF Gear Unit backlash	<3 arc-min
HPG-U1 Gear Unit backlash	<3 arc-min

[price on request](#)



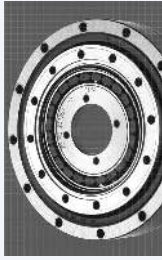
HARMONIC DRIVE

SHA Integrated with Servo Drive

The SHA Integrated Series offers compact actuators delivering high torque with exceptional accuracy and repeatability, featuring Harmonic Drive® gearing, a brushless servo motor, a

Maximum torque	68-477 Nm
Maximum Speed	16-75 rpm
Maximum current	9.1-25.5 A rms
Continuous torque	16-126 Nm
Continuous speed	15-51 rpm
Mass	2.1-6.4 kg
Operating voltage	48 (24-60) V

[price on request](#) [datasheet](#)



HARMONIC DRIVE

SHD-2SH Hollow Shaft Gear

Axially compact gear units featuring a large hollow input shaft and a robust cross roller bearing, allowing loads to be mounted directly without additional support bearings.

Rated Torque L10	3.7 Nm
Limit for Repeated Peak Torque	12 Nm
Limit for Momentary Peak Torque	23 Nm
Backdriving Torque	3.7 Nm
Standard Accuracy	1.5 arc min
Mass	0.33 kg
K1 Torsional Stiffness	0.29 10 ⁴ Nm / rad

[price on request](#) [datasheet](#)



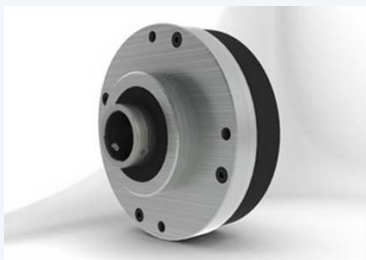
HARMONIC DRIVE

SHD-2UH Lightweight Gear Unit

Axially compact gear units featuring a large hollow input shaft and a robust cross roller bearing, allowing loads to be mounted directly without additional support bearings.

Accuracy	<1 arc-min (most sizes)
Weight reduction	30% lower than Standard SHF Series
Design	15% shorter than SHF Series
Backlash	Zero
SHD-14-50-2UH-LW Mass	0.49 kg
SHD-14-80-2UH-LW Mass	0.49 kg
SHD-14-100-2UH-LW Mass	0.49 kg

[price on request](#) [datasheet](#)



HARMONIC DRIVE

SHF-11-50-2UH Hollow Shaft Gear Unit

The SHF-11-50-2UH is a compact hollow shaft gear unit from Harmonic Drive, designed for precision motion control applications.

Mass	0.53 kg
Rated Torque L10	3.5 Nm
Limit for Average Torque	5.5 Nm
Limit for Repeated Peak Torque	8.3 Nm
Limit for Momentary Peak Torque	17 Nm
Starting Torque	7.1 Ncm
Backdriving Torque	4.6 Nm

[price on request](#) [datasheet](#)



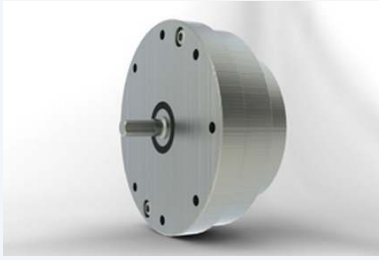
HARMONIC DRIVE

SHF-2A Component Set

The SHF-2A Component Set is a zero-backlash component gear set featuring a brim-like mounting surface and large through hole, available in 10 sizes with reduction ratios from 30:1

Peak torque	9 ~ 1800 N•m
Ratios	30:1 ~ 160:1
Series	SHF

[price on request](#) [datasheet](#)



HARMONIC DRIVE

SHG-50-100-2UJ Gear Unit

The SHG-50-100-2UJ Gear Unit from Harmonic Drive is a high torque gear unit designed for precision motion control applications.

Rated Torque L10	611 Nm
Limit for Average Torque	866 Nm
Limit for Repeated Peak Torque	1,274 Nm
Limit for Momentary Peak Torque	2,678 Nm
Starting Torque	80 Ncm
Backdriving Torque	96 Nm
Ave. Input Speed	2,500 rpm

price on request

[datasheet](#)

Contact Harmonic Drive

Open the company profile on NewSpace Market to see full specifications and datasheets, and to send a request for quotation that reaches the manufacturer directly.

<https://newspacemarket.com/companies/harmonic-drive/>

<https://www.harmonicdrive.net>

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