

RBV1/

Strain Wave Joint

■ Product Features



High-Precision



Low-Noise



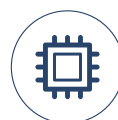
Large-Hollow-Bore Design



Compact Structure



CANOpen/CANFD/EtherCAT



23-bit Dual Magnetic Encoder

Lightweight-Series Strain Wave Joint



R48-Lite



R58-Lite



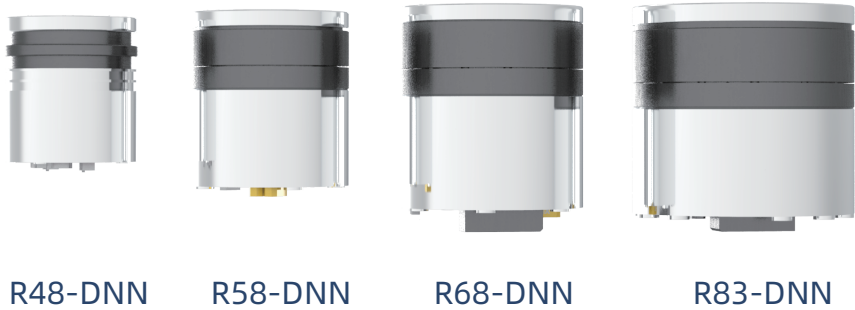
R68-Lite

■ Product Specifications

Module	Gear Ratio	Rated Torque(Nm)	Peak(Nm)	Weight(kg)	Dimensions(mm)	Hollow pore(mm)	Specific Applications
R48-Lite	101:1	5	11	0.26	Φ48*45.5	Φ8	Neck, Wrist
R58-Lite	101:1	20	45	0.46	Φ58*58.0	Φ8	Wrist, Elbow
R68-Lite	101:1	33	82	0.74	Φ68*73.3	Φ18	Shoulder, Elbow



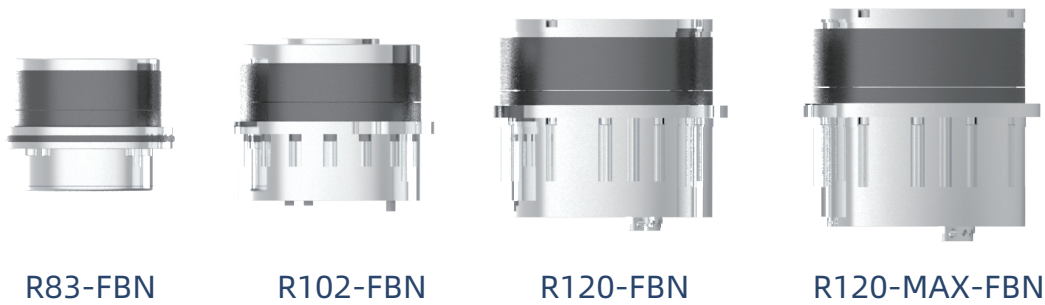
Basic-Series Strain Wave Joint



Product Specifications

Module	Gear Ratio	Rated Torque(Nm)	Peak(Nm)	Weight(kg)	Dimensions(mm)	Hollow pore(mm)	Specific Applications
R48-DNN	101:1	6.5	16	0.27	Φ48*53.6	Φ8	Neck, Wrist
R58-DNN	101:1	20	45	0.55	Φ58*65.2	Φ8	Wrist, Elbow
R68-DNN	101:1	33	82	0.83	Φ68*77.6	Φ12	Shoulder, Elbow
R83-DNN	101:1	53	120	1.26	Φ83*78.8	Φ12	Shoulder, Elbow

Waist-Dedicated-Series Strain Wave Joint



Product Specifications

Module	Gear Ratio	Rated Torque(Nm)	Peak(Nm)	Weight(kg)	Dimensions(mm)	Hollow pore(mm)	Specific Applications
R83-FBN	101:1	53	120	1.4	Φ83*74.0	Φ12	Waist
R102-FBN	161:1	147	350	2.2	Φ102*90.3	Φ20	Waist
R120-FBN	161:1	180	450	4.1	Φ120*110.3	Φ23	Waist
R120-MAX-FBN	161:1	300	600	4.6	Φ120*125.0	Φ23	Waist



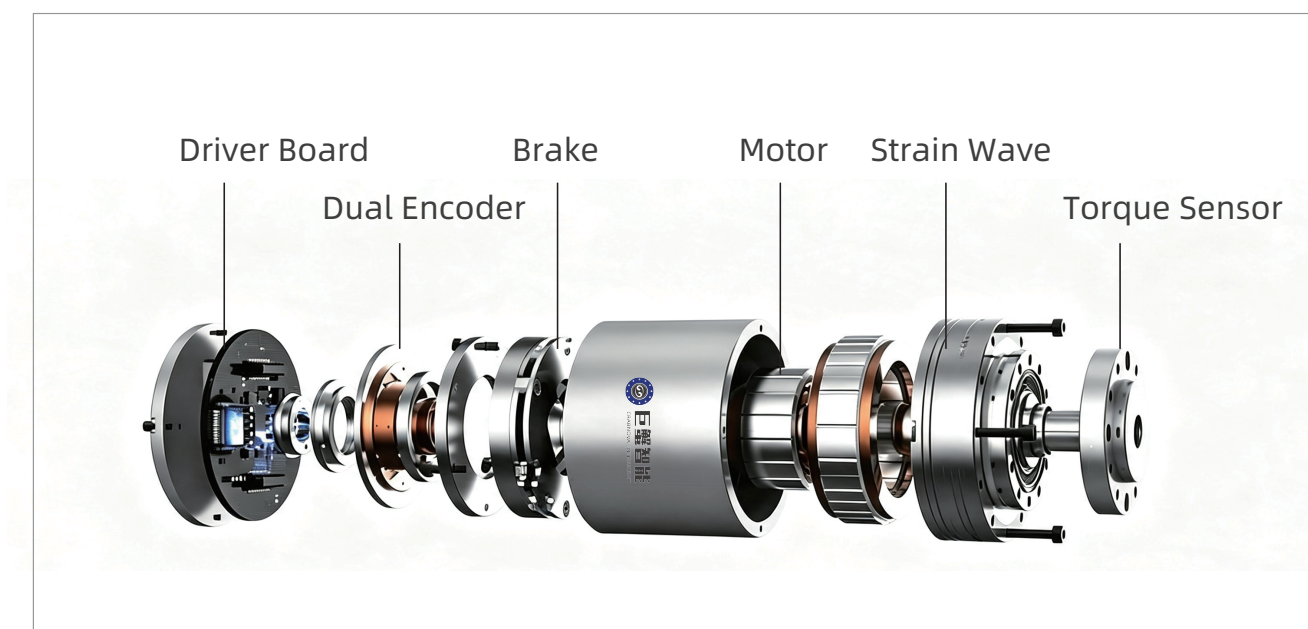
RBV3/

Strain Wave Joint

Performance-Series Strain Wave Joint



■ Product Structure



■ Product Features

Voltage	48V	Accuracy	23bit
Noise	≤60db	Protocol	CANOPEN/CANFD /EtherCAT
Temperature	-20~50°C	Backlash	< 30Arcsec
Lifetime	10000h	Torque Sensor Accuracy	≤0.5%FS
Brake	Yes	Torque Sensor Resolution	0.1%FS

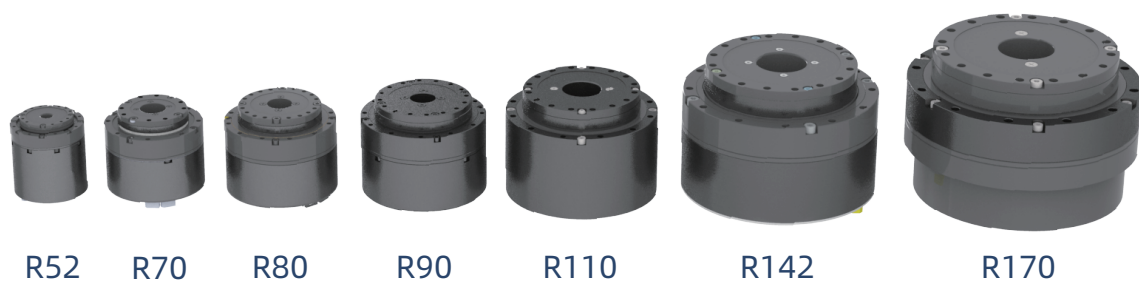
■ Product Specifications

Specifications	R48	R58	R68	R83	R102	R120
Dimensions (mm)	Φ48*48	Φ58*58	Φ68*68	Φ83*79.3	Φ102*86.3	Φ120*103
Hollow pore (mm)	Φ8	Φ8	Φ12	Φ15	Φ20	Φ23
Weight (kg)	0.276	0.495	0.775	1.32	1.95	3.92
Gear Ratio	101:1	101:1	101:1	101:1	101:1	161:1
Output speed (RPM)	30	30	30	30	30	18
Rated Torque (Nm)	6.5	20	33	53	85	180
Peak (Nm)	16	45	82	120	195	450
Rated Current (A)	1.3	3.5	5.42	6.5	9.3	15
Peak Current (A)	3.2	10.8	16.3	20.2	33.8	45
Specific Applications	Neck, Wrist	Wrist, Elbow	Shoulder, Elbow	Shoulder, Elbow, Waist	Shoulder, Elbow, Waist	Shoulder, Waist

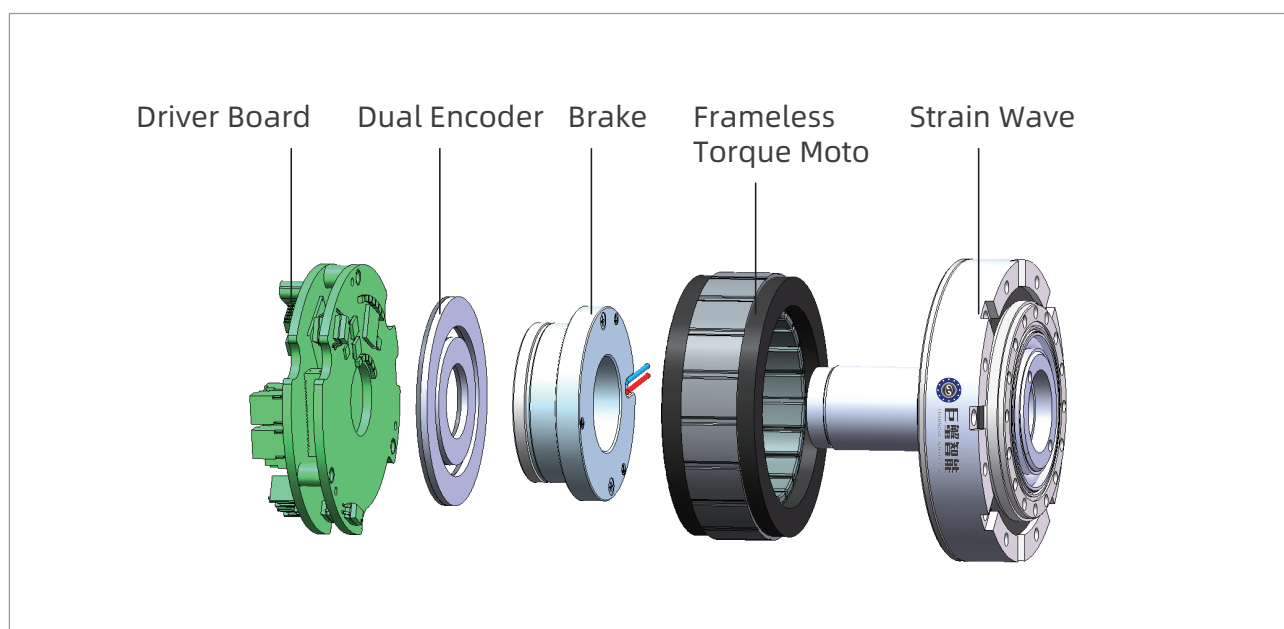


RMV3 / Strain Wave Joint

Industrial-Series Strain Wave Joint



■ Product Structure



■ Product Features

Voltage	48V	Accuracy	23bit
Noise	≤60db	Protocol	CANOPEN/CANFD /EtherCAT
Temperature	-20~50℃	Backlash	< 30Arcsec
Lifetime	> 10000h	Brake	Yes

■ Product Specifications

Module	Gear Ratio	Rated Torque(Nm)	Peak(Nm)	Weight(kg)	Dimensions(mm)	Hollow pore(mm)
R52	51:1	3.5	8.3	0.45	Φ52*57	Φ11
	101:1	5.0	11			
R70	51:1	7	23	0.80	Φ70*58.5	Φ18
	101:1	10	36			
R80	51:1	21	44	1.18	Φ80*63.9	Φ18
	101:1	31	70			
R90	51:1	33	73	1.62	Φ90*69.5	Φ18
	101:1	52	107			
R110	51:1	51	127	2.46	Φ110*78	Φ28
	101:1	87	204			
R142	101:1	178	433	4.80	Φ142*96.5	Φ36
	161:1	178	484			
R170	101:1	345	738	8.00	Φ170*110	Φ40
	161:1	382	841			



HRV1/

Embodied Robot Solution

7DOF Embodied Robotic Arm



■ Product Specifications

Specs	3kg(Data Acquisition Version)	3kg(Force-Control Version)	15kg(Force-Control Version)
Arm Length (mm)	892	892	950
Arm Weight (kg)	4.65	5	20
Degrees of Freedom	7DOF	7DOF	7DOF
Payload (kg)	3	3	15
Rated Voltage (V)	48	48	48
Communication protocol	CANFD/CANOPEN	CANFD/CANOPEN/EtherCAT	CANFD/CANOPEN/EtherCAT
Module Configuration	RBV1: R68/R58/R48	RBV3: R68/R58/R48	RBV3: R120/R102/R83
Joint Torque Sensor	No	Yes	Yes
Brake	No	Yes	Yes



Industrial Embodied Robot



Lifting Wheeled Robot A0

Lifting Wheeled Robot A1

Folding Wheeled Robot A2

Product Specifications

Specs	Lifting Wheeled Robot A0	Lifting Wheeled Robot A1	Folding Wheeled Robot A2
Dimensions (mm)	1640*550*600	1855*550*600	1791*550*600
Weight (kg)	110	100	120
Degrees of Freedom	27DOF	27DOF	30DOF
Gripper	R48-Gri * 2		R48-Gri * 2
Module Configuration	Head: R48-lite*2 Arm: R48-lite*3,R58-lite*2,R68-lite*2 Chassis: RMV3-R80*4		Head: R48-lite*2 Arm: R48-lite*3,R58-lite*2,R68-lite*2 Waist: RBV1-R120-FBN*2,RBV1-R102-FBN*2 Chassis: RMV3-R80*4

