



Articulating a smarter future



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**Contact:** Ryan Hom | 13816038604 | hb@eyoubot.com

**Website:** www.eyoubot.com



Humaniod Robot · Cobot · Industrial Automation  
Integrated Servo Joint Module **Selection Guide**

## Jiangsu EYOU Robotics Technology Co., Ltd

EYOU Robotics was founded in 2018. The company has self-developed high-precision joint FOC algorithms, and launched the planetary, harmonic and actuator joint modules, covering all kinds of power needs of the upper limbs, waist, and lower limbs of humanoid robots.

In 2025, we achieved sales of 100,000 sets of joint module products, with sales revenue exceeding 150 million USD, we hold a leading market share in harmonic drive joints. The company currently has an annual production capacity of 400,000 sets and owns the first automated joint production line in China. With excellent products and high-quality production capacity, the company helps customers achieve rapid mass production and delivery, accelerating the application and deployment of humanoid robots!

### Certifications



ISO



EMC

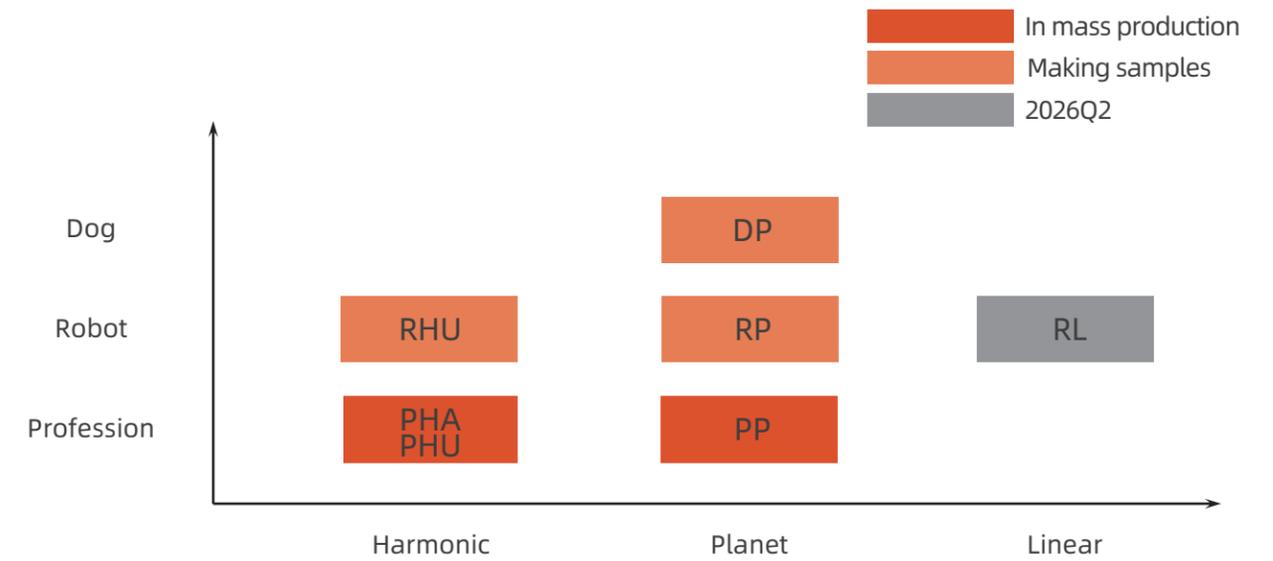


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### Partners

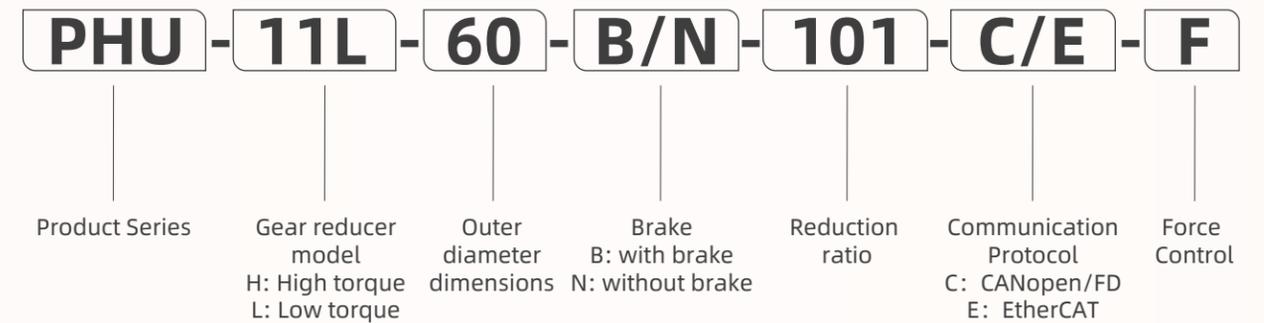


## EYOU Product Matrix



## Model Naming Convention

### Harmonic



### Planetary



## PHU Enhanced Harmonic Integrated Joint Module



### Features

Operating Voltage	24-48V	Encoder Type	Dual Absolute Encoders
Operating Noise	<60db	Encoder Accuracy	19bit
Operating Temperature	-20-60°C	Power-off Brake	Optional
Service Life	> 8000h	Protocol	EtherCAT/CAN FD

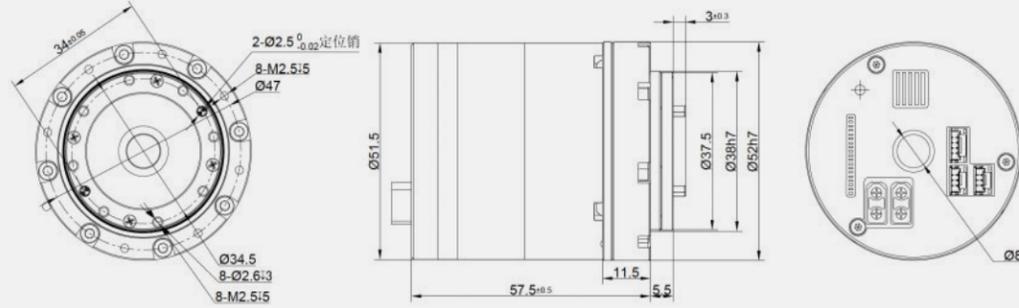
### Specifications

Model	Dimensions (mm)	Hollow Bore Diameter (mm)	Weight (g)	Reduction Ratio	Rated Output Power (W)	Rated Torque (@2000rpm) (N.m)	Average Output Torque (N.m)	Peak Start-Stop Output Torque (N.m)	Max. Allowable Momentary Torque (N.m)
PHU11L-52	φ52*63	8	B:392 N:355	51	10	2.4	3.5	5.8	11.5
				101	6	3	5.5	6.5	15
PHU11H-52	φ52*68.5	8	B:441 N:403	51	14	3.5	5.5	8.3	17
				101	10	5	8.9	11	25

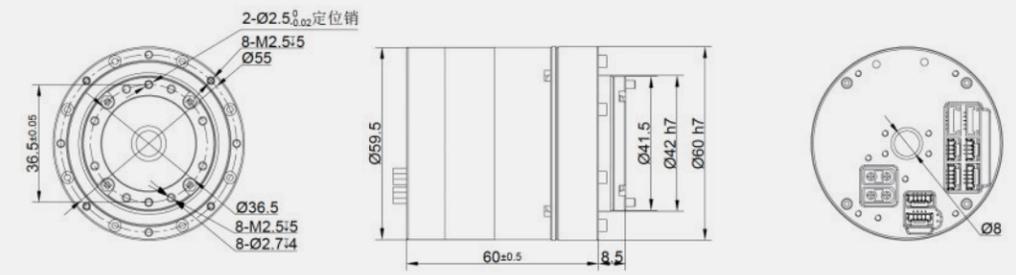
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PHU11H-60	φ60*68.5	8	B:595 N:543	51	14	3.5	5.5	8.3	17
				101	10	5	8.9	11	25
PHU14H-70	φ70*75.4	10.8	B:838 N:747	51	27	6.6	8.6	23	43
				101	20	9.6	13.5	34	66
PHU17H-80	φ80*78	10.8	B:1202 N:1088	51	81	19.8	32	42	86
				101	62	30	49	66	134
PHU20H-90	φ90*83.8	13	B:1749 N:1590	81	109	42	58	91	158
				101	104	50	61	102	182
				121	87	50	61	108	182
PHU25H-110	φ110*94	13	B:2542 N:2349	81	202	78	107	169	315
				101	174	84	133	194	351
				121	145	84	133	207	376
PHU32H-142	φ142*148	22	B:6310 N:5828	81	420	146	206	376	702
				101	389	169	267	411	800
				121	319	169	267	436	848
				161	239	169	267	459	848
PHU40H-170	φ170*153.5	23	B:9345 N:8701	81	734	255	351	641	1210
				101	756	328	460	702	1334
				121	684	363	557	762	1458
				161	513	363	557	800	1458

## Product Details

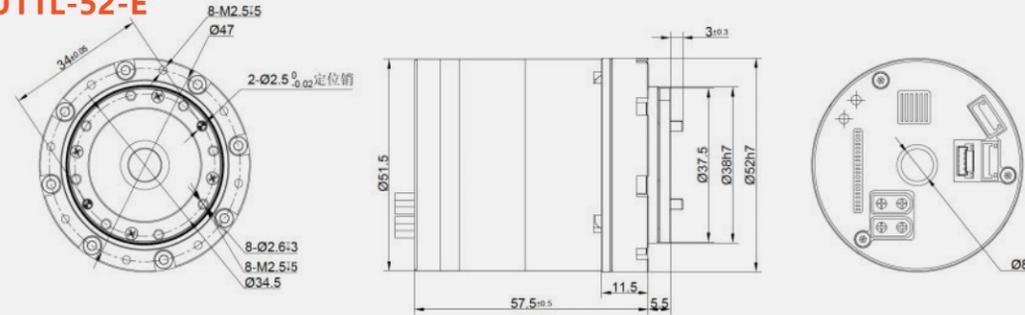
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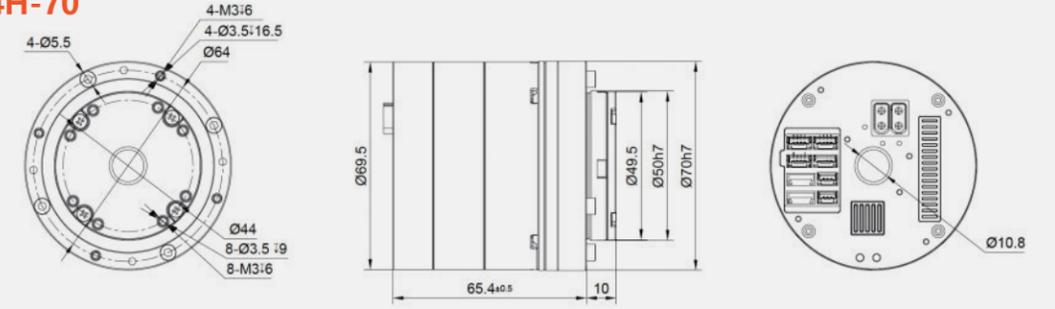
**PHU11H-60**



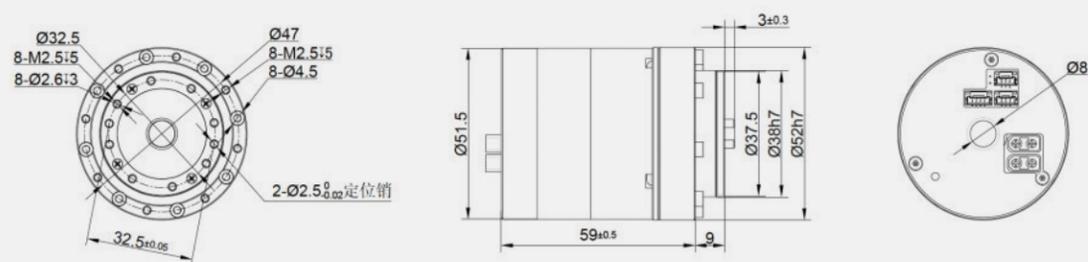
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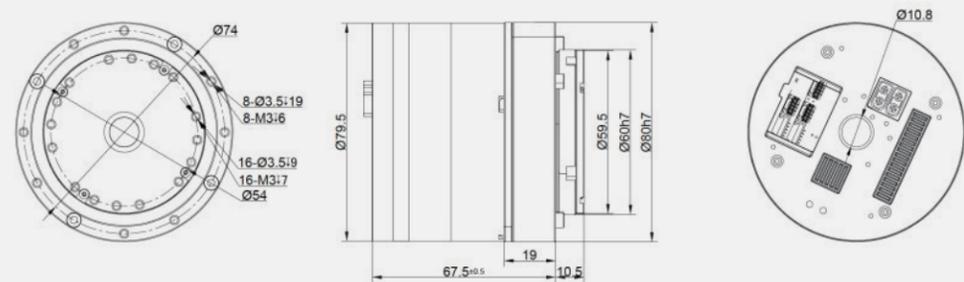
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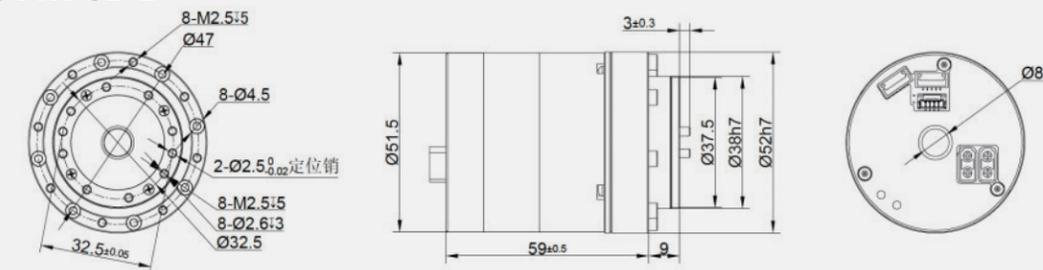
**PHU11H-52-C**



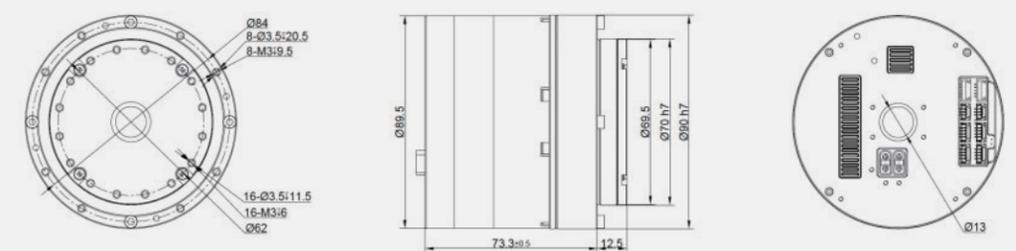
**PHU17H-80**



**PHU11H-52-E**

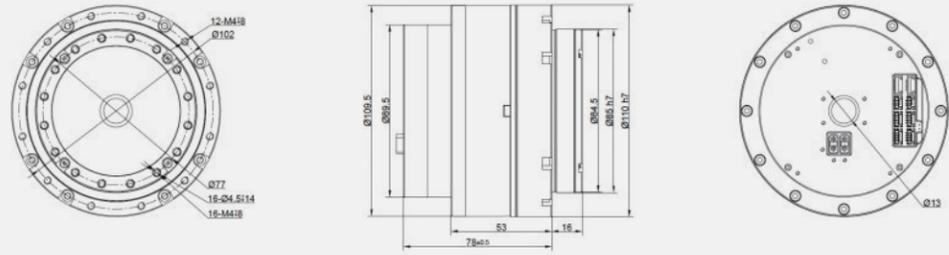


**PHU20H-90**

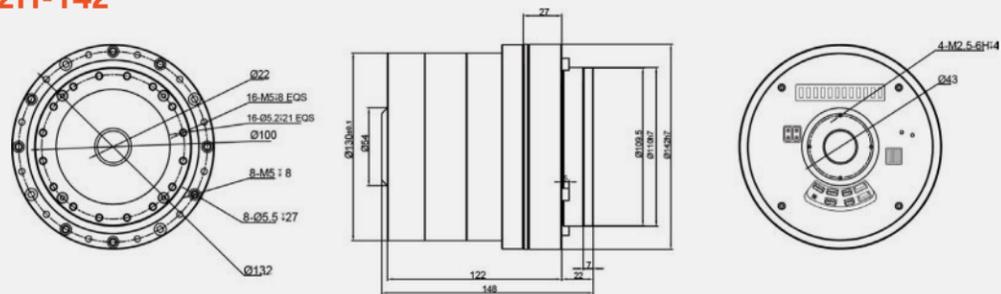


## PHU-F Force Control Enhanced Harmonic Integrated Joint Module

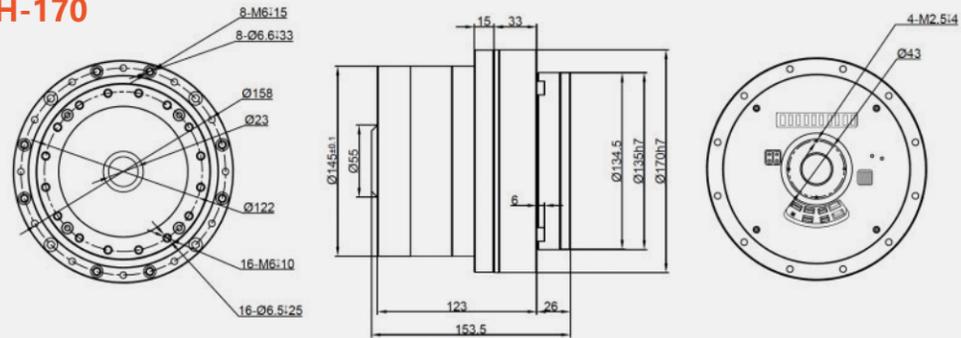
### PHU25H-110



### PHU32H-142



### PHU40H-170



## Features

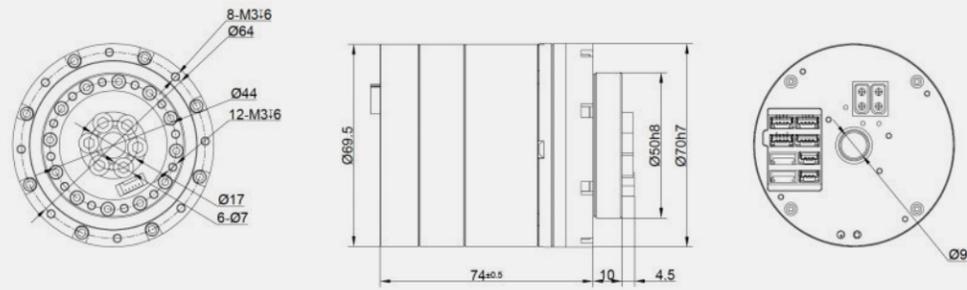
Operating Voltage	24-48V	Encoder Type	Dual Absolute Encoders
Torque Accuracy	≤0.5%FS	Encoder Accuracy	19bit
Sensor Resolution	0.1%FS	Power-off Brake	Optional
Sampling Frequency	≥5kHz	Protocol	EtherCAT/CAN FD

## Specifications

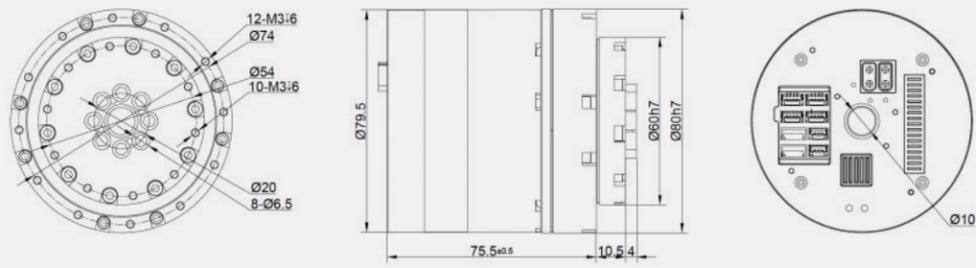
Model	Dimensions (mm)	Hollow Bore Diameter (mm)	Weight (g)	Reduction Ratio	Rated Output Power (W)	Rated Torque (@2000rpm) (N.m)	Average Output Torque (N.m)	Peak Start-Stop Output Torque (N.m)	Max. Allowable Momentary Torque (N.m)
PHU14H-70-F	φ70*72	10.8	B:981 N:906	50	28	6.6	8.6	23	43
				100	20	9.6	13.5	34	66
PHU17H-80-F	φ80*84	10.8	B:1350 N:1242	50	83	19.8	32	42	86
				100	63	30	49	66	134
PHU20H-90-F	φ90*92	13	B:1904 N:1738	80	110	42	58	91	158
				100	105	50	61	102	182
				120	87	50	61	108	183
PHU25H-110-F	φ110*100	13	B:2969 N:2782	50	204	78	107	169	315
				100	176	84	133	194	351
				120	147	84	133	207	376

## Product Details

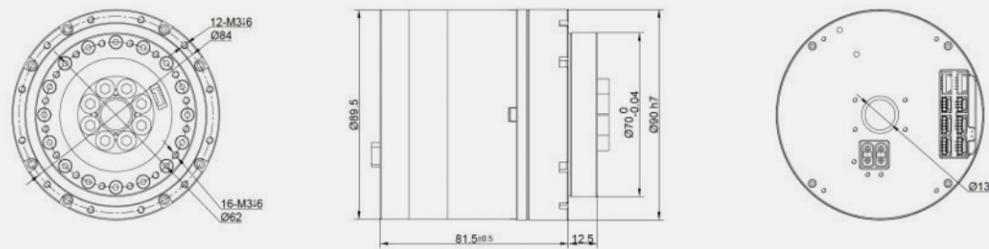
### PHU14H-70-F



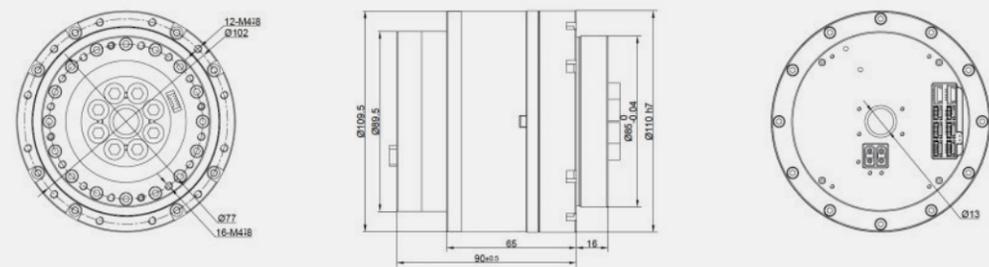
### PHU17H-80-F



### PHU20H-90-F



### PHU25H-110-F



## RHU Humanoid-Specific Harmonic Integrated Joint



## Features

Operating Voltage	24-48V	Encoder Type	Dual Absolute Encoders
Operating Noise	< 60db	Encoder Accuracy	19bit
Operating Temperature	-20-60°C	Power-off Brake	Optional
Service Life	> 10000h	Protocol	EtherCAT/CANopen

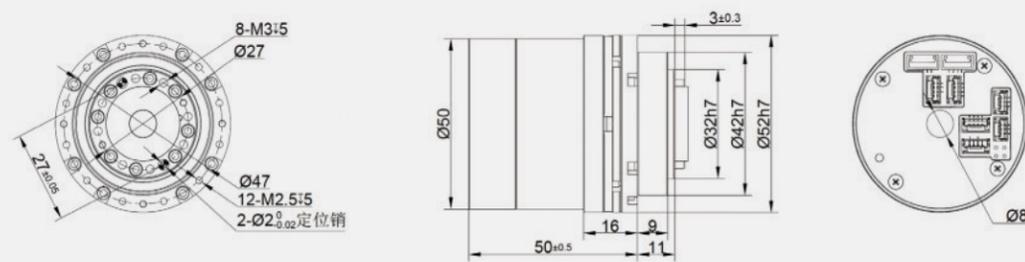
## Specifications

Model	Dimensions (mm)	Hollow Bore Diameter (mm)	Weight (g)	Reduction Ratio	Rated Output Power (W)	Rated Torque (@2000rpm) (N.m)	Average Output Torque (N.m)	Peak Start-Stop Output Torque (N.m)	Allowable Momentary Torque (N.m)
RHU14L-52	φ52*65	8	383	50	28	3.7	4.8	12	24
				80	25	5.4	7.7	16	35
				100	20	5.4	7.7	19	35
RHU17L-60	φ60*66	10	553	50	83	11	18	23	48
				80	71	15	19	29	61
				100	60	16	27	37	71

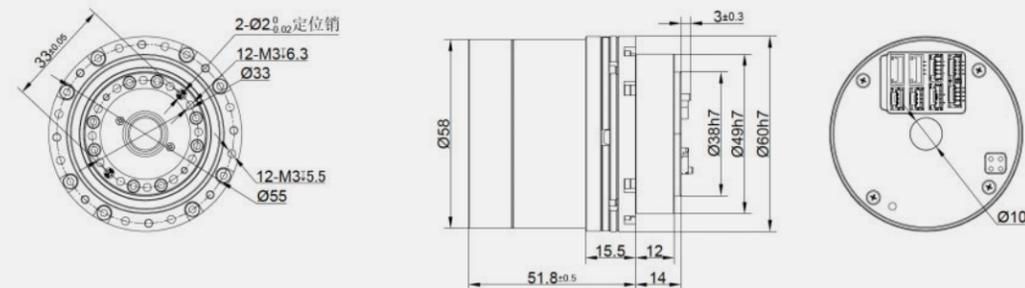
Model	Dimensions (mm)	Hollow Bore Diameter (mm)	Weight (g)	Reduction Ratio	Rated Output Power (W)	Rated Torque (@2000rpm) (N.m)	Average Output Torque (N.m)	Peak Start-Stop Output Torque (N.m)	Allowable Momentary Torque (N.m)
RHU20L-70	φ70*68	13	845	50	107	17	24	39	69
				80	94	24	33	51	89
				100	88	28	34	57	95
RHU25L-80	φ80*80.5	18	1284	50	170	27	38	69	127
				80	173	44	60	96	179
				100	148	47	75	110	184
RHU32H-120	φ120*126	22	4360	160	265	169	267	459	848
RHU40H-130	φ130*136		6016	160	570	353	557	800	1458

## Product Details

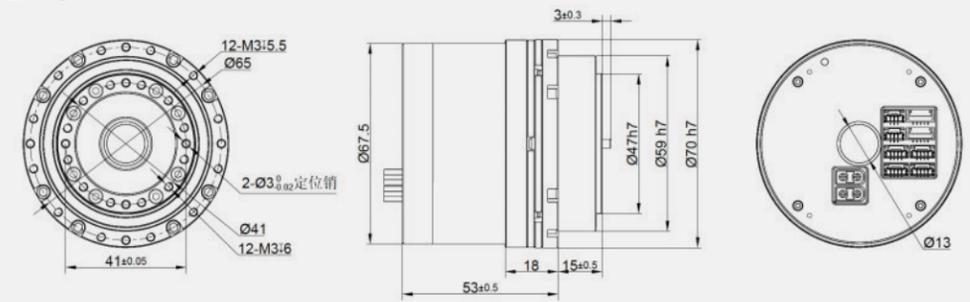
### RHU14L-52



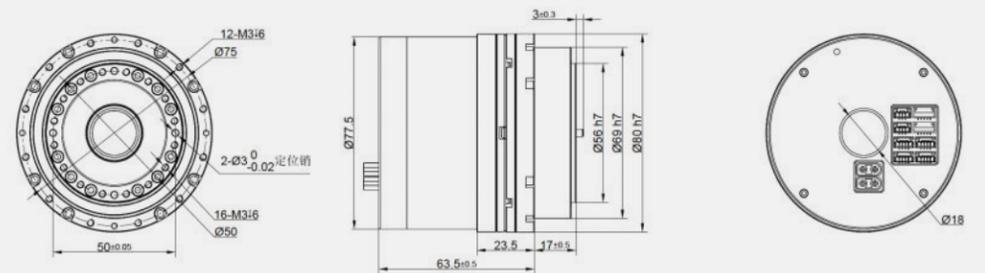
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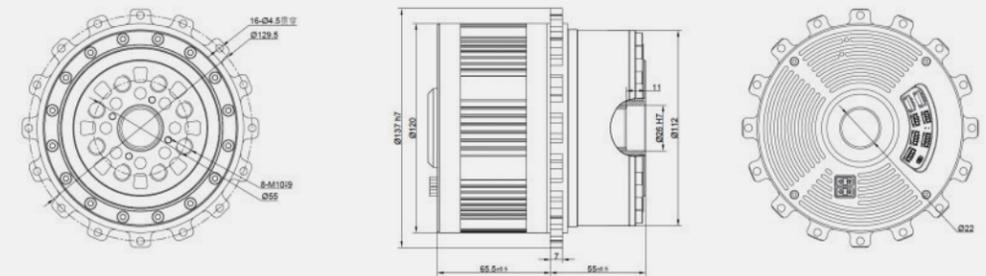
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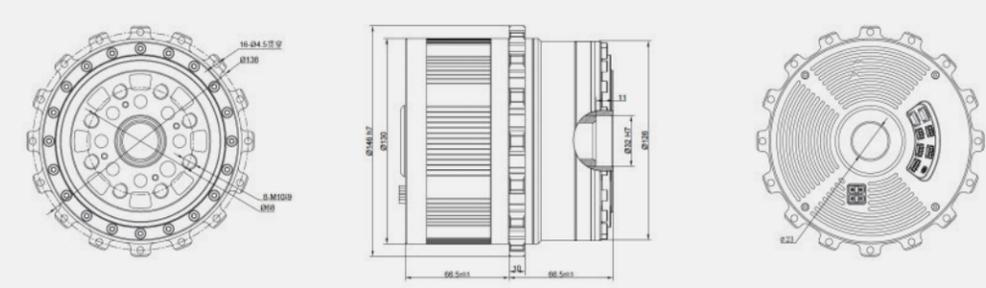
### RHU25L-80



### RHU32H-120



### RHU40H-130



## RHU-F Force-Control Humanoid Harmonic Integrated Joint



### Features

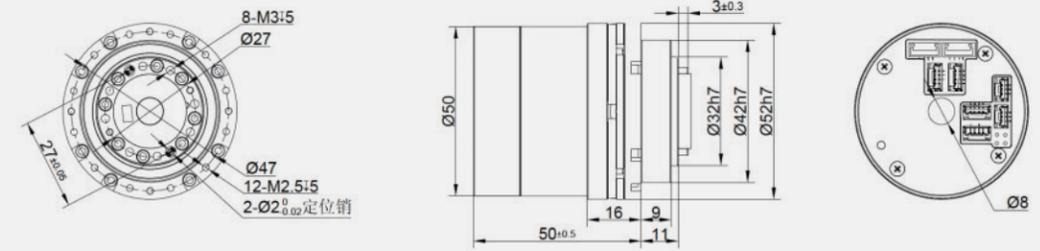
Operating Voltage	24-48V	Encoder Type	Dual Absolute Encoders
Torque Accuracy	≤0.5%FS	Encoder Accuracy	19bit
Sensor Resolution	0.1%FS	Power-off Brake	Optional
Sampling Frequency	≥5kHz	Protocol	EtherCAT/CAN FD

### Specifications

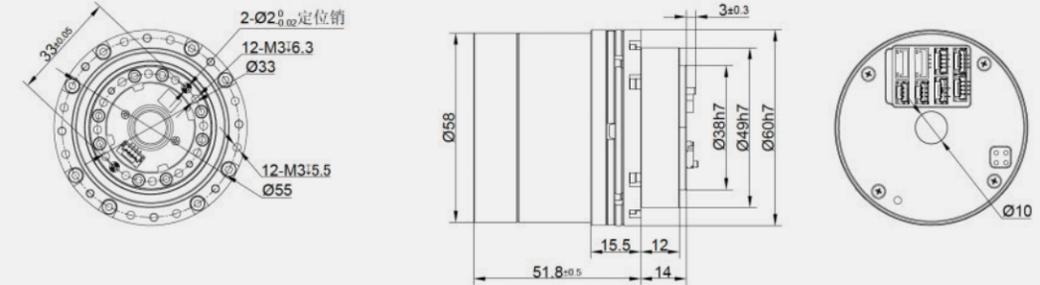
Model	Dimensions (mm)	Hollow Bore Diameter (mm)	Weight (g)	Reduction Ratio	Rated Output Power (W)	Rated Torque (@2000rpm) (N.m)	Average Output Torque (N.m)	Peak Start-Stop Output Torque (N.m)	Max. Allowable Momentary Torque (N.m)
RHU14L-52-N-F	φ52*65	8	377	50	28	3.7	4.8	12	24
				80	25	5.4	7.7	16	35
				100	20	5.4	7.7	19	35
RHU17L-60-N-F	φ60*66	10	550	50	83	11	18	23	48
				80	71	15	19	29	61
				100	60	16	27	37	71
RHU20L-70-N-F	φ70*68	13	815	50	107	17	24	39	69
				80	94	24	33	51	89
				100	88	28	34	57	95
RHU25L-80-N-F	φ80*80.5	18	1214	50	170	27	38	69	127
				80	173	44	60	96	179
				100	148	47	75	110	184

### Product Details

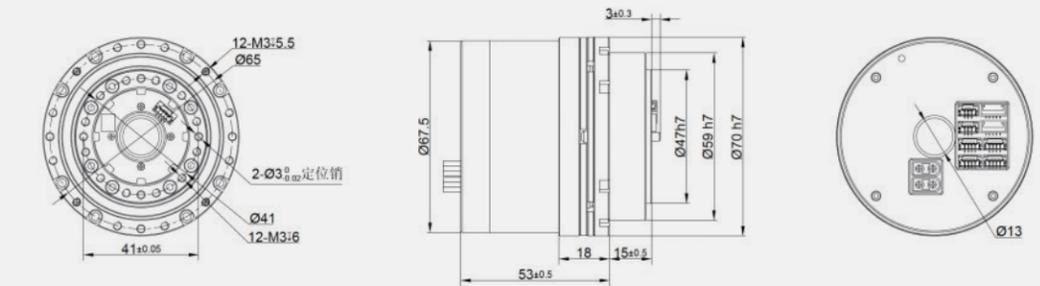
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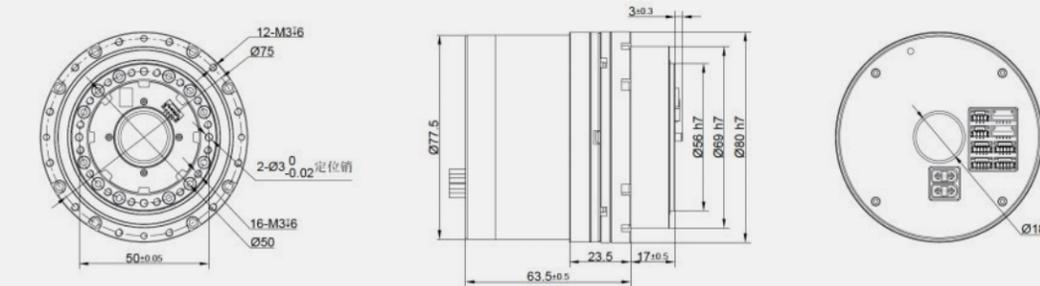
#### RHU17L-F



#### RHU20L-F



#### RHU25L-F



## PHA Ultra-Lightweight Harmonic Integrated Joint



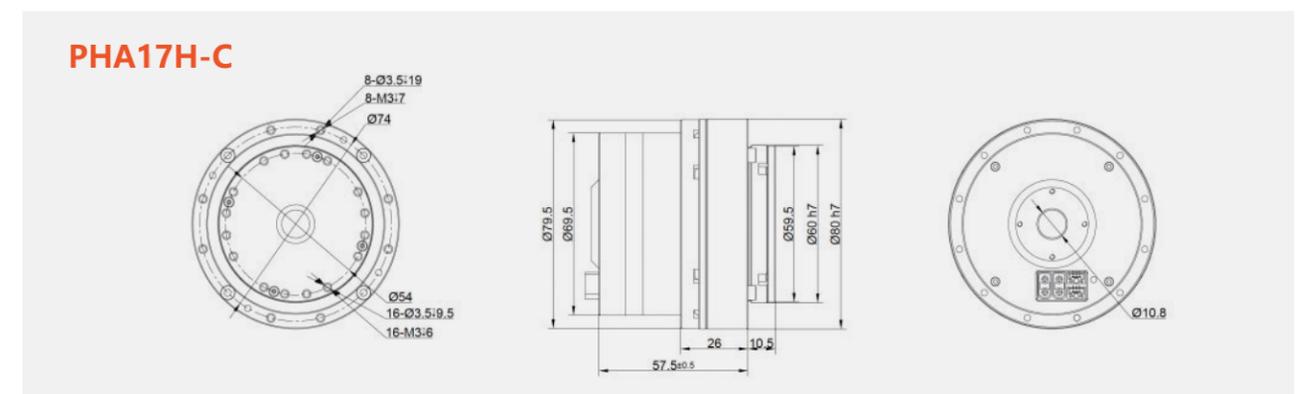
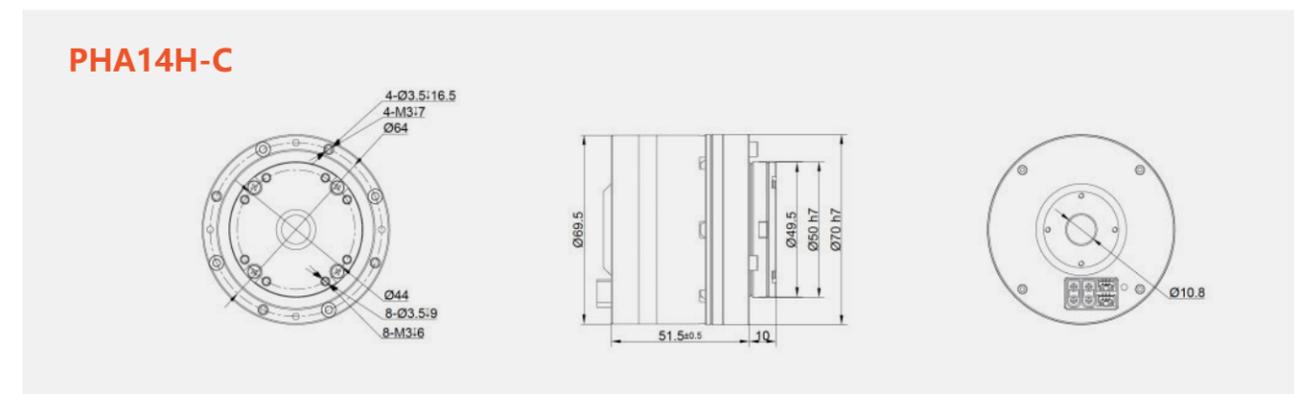
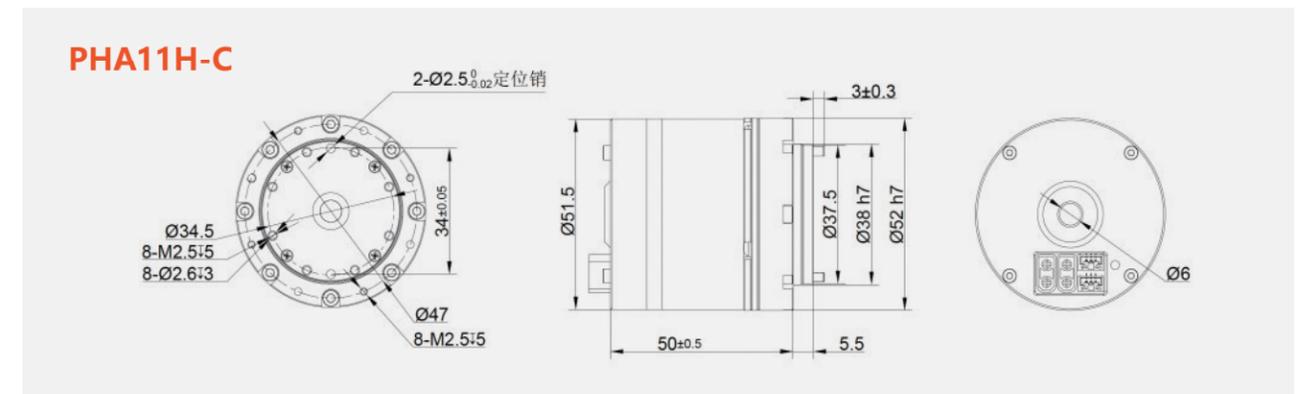
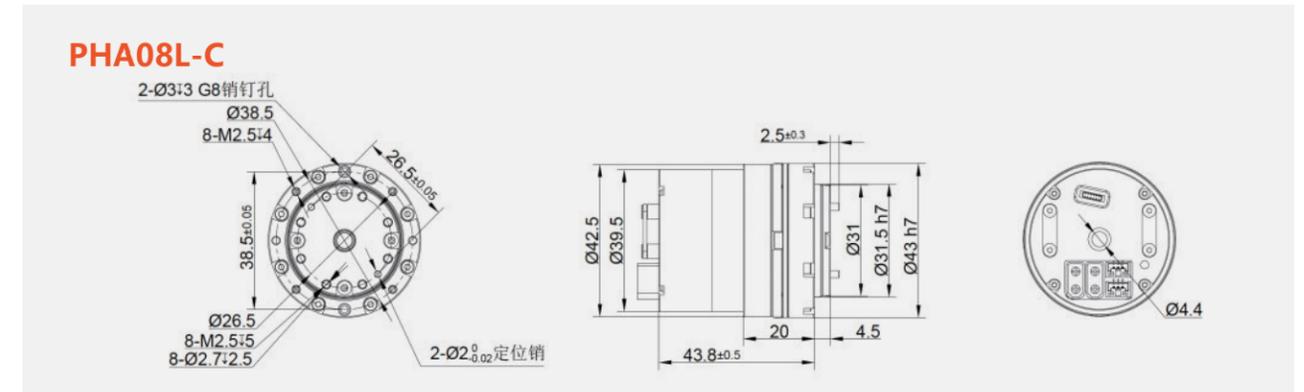
## Features

Operating Noise	< 60db	Encoder Type	Dual Absolute Encoders
Operating Temperature	-20-60°C	Encoder Accuracy	16bit
Service Life	> 10000h	Power-off Brake	No
Backlash	≤ 15arcsec	Protocol	CANOpen/CAN FD

## Specifications

Model	Dimensions (mm)	Hollow Bore Diameter (mm)	Weight (g)	Voltage	Rated Output Power (W)	Rated Torque (@2000rpm) (N.m)	Average Output Torque (N.m)	Peak Start-Stop Output Torque (N.m)	Max. Allowable Momentary Torque (N.m)
PHA08L-101-C	φ43*48.3	4.4	N:207	24-36V	3	1.65	2.3	3.3	6.3
PHA11H-101-C	φ52*55.5	6	N:375	48V	10	5	8.9	11	33
PHA14H-101-C	φ70*61.5	10.8	N:645		20	9.6	13.5	34	67
PHA17H-101-C	φ80*68	10.8	N:900		63	30	49	66	90

## Product Details



## RP Humanoid Planetary Integrated Joint



### Features

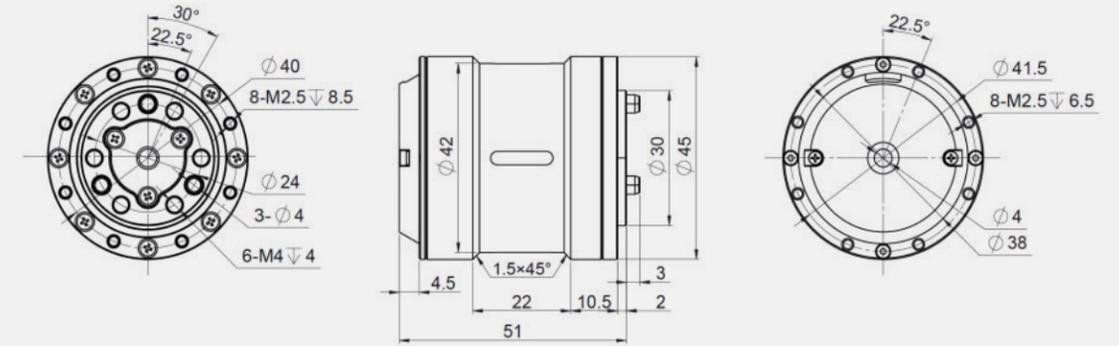
Operating Voltage	48V	Encoder Type	Inductive Absolute Encoder
Backlash	≤ 12arcmin	Encoder Accuracy	17bit input, 19bit output
Operating Temperature	-20-45°C	Service Life	> 3000h
Operating Noise	< 65db	Protocol	CANOpen/CAN FD

### Specifications

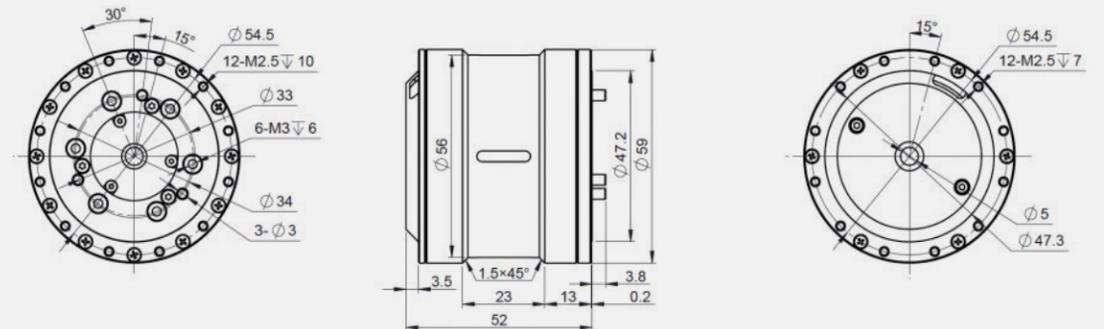
Model	Dimensions (mm)	Hollow Bore Diameter (mm)	Weight (g)	Reduction Ratio	Rate Power (W)	Rate speed (rpm)	Rate Torque (N.m)	Peak Torque (N.m)
RP40S	φ45*51	4	195	25	25	120	2	6
RP50L	φ59*52	5	380	19.53	79	150	5	15
RP50H	φ59*59	5	445	19.53	157	150	10	30
RP70L	φ77*50.5	6	645	20	163	130	12	36
RP70H	φ77*58	6	785	20	262	125	20	60
RP90S	φ96.5*55	8	1050	21.91	482	115	40	120

### Product Details

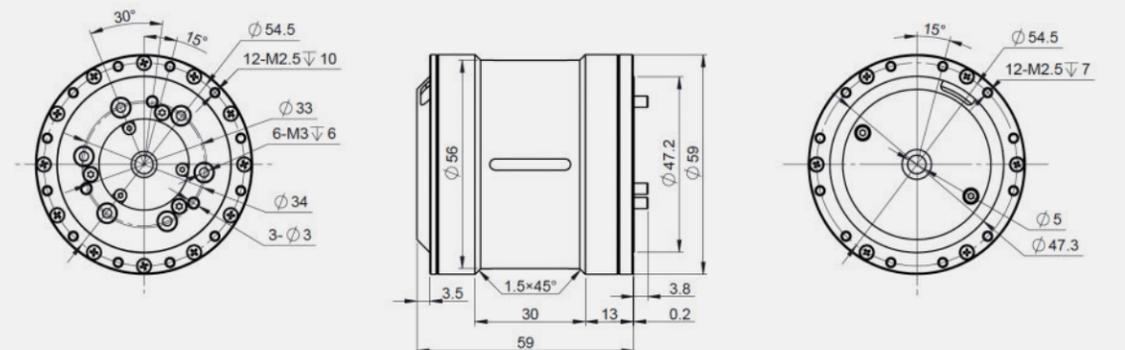
#### RP40S



#### RP50L

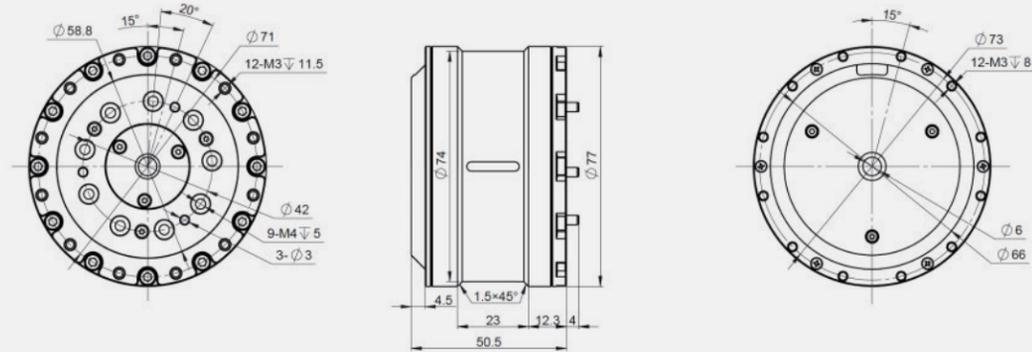


#### RP50H

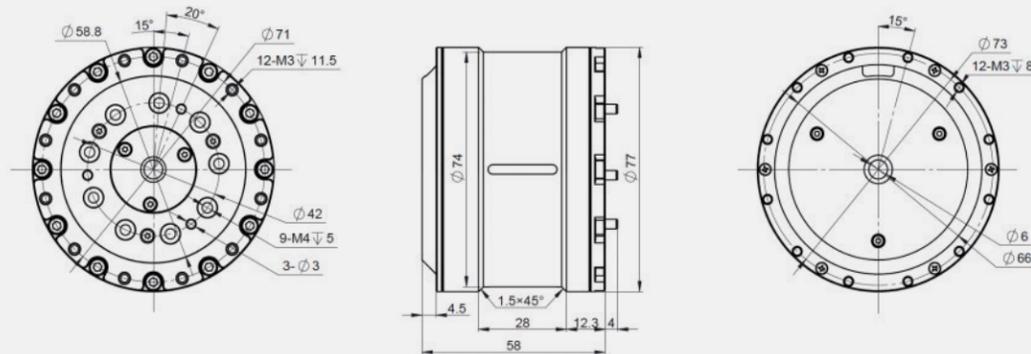


## PP Planetary Integrated Joint Module

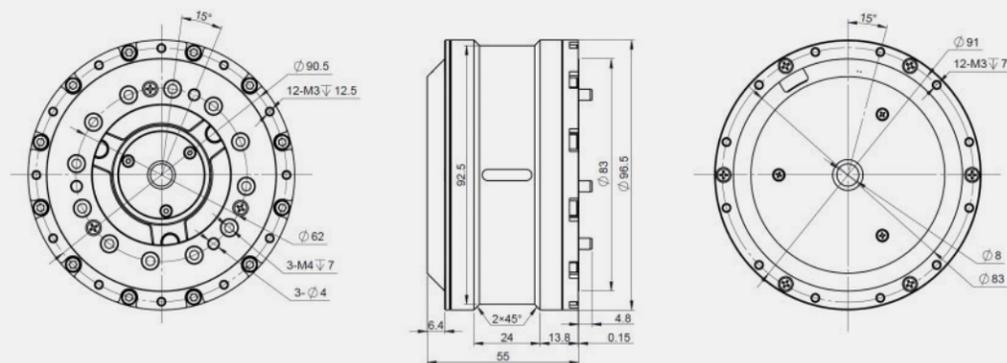
### RP70L



### RP70H



### RP90S



## Features

Motor type	Brushless Torque Motor	Encoder Type	Dual Absolute Encoders
Operating Noise	<60dB @ 1m	Operating Voltage	24V
Operating Temperature	-20-80°C	Protection Rating	IP54
Backlash	≤ 12 arcmin	Protocol	CAN

## Specifications

Model	Diameter	Lenth	Weight	Reduction Ratio	Max. Powe	Rate speed	Rate Torque	Peak Torque
PP05	32mm	33.4mm	86 g	6	35W	50rpm	0.2Nm	0.48Nm
PP08	40mm	52mm	189 g	36	36W	50rpm	1.0Nm	2.2Nm
PP08D	40mm	48mm	199g	36	36W	50rpm	1.0Nm	2.2Nm
PP11	52mm	64mm	39 0g	36	60W	50rpm	6.6Nm	10Nm
PP11D	52mm	61mm	43 7g	36	60W	50rpm	6.6Nm	10Nm
PP11L	52mm	82mm	521 g	36	72W	50rpm	10Nm	18Nm

