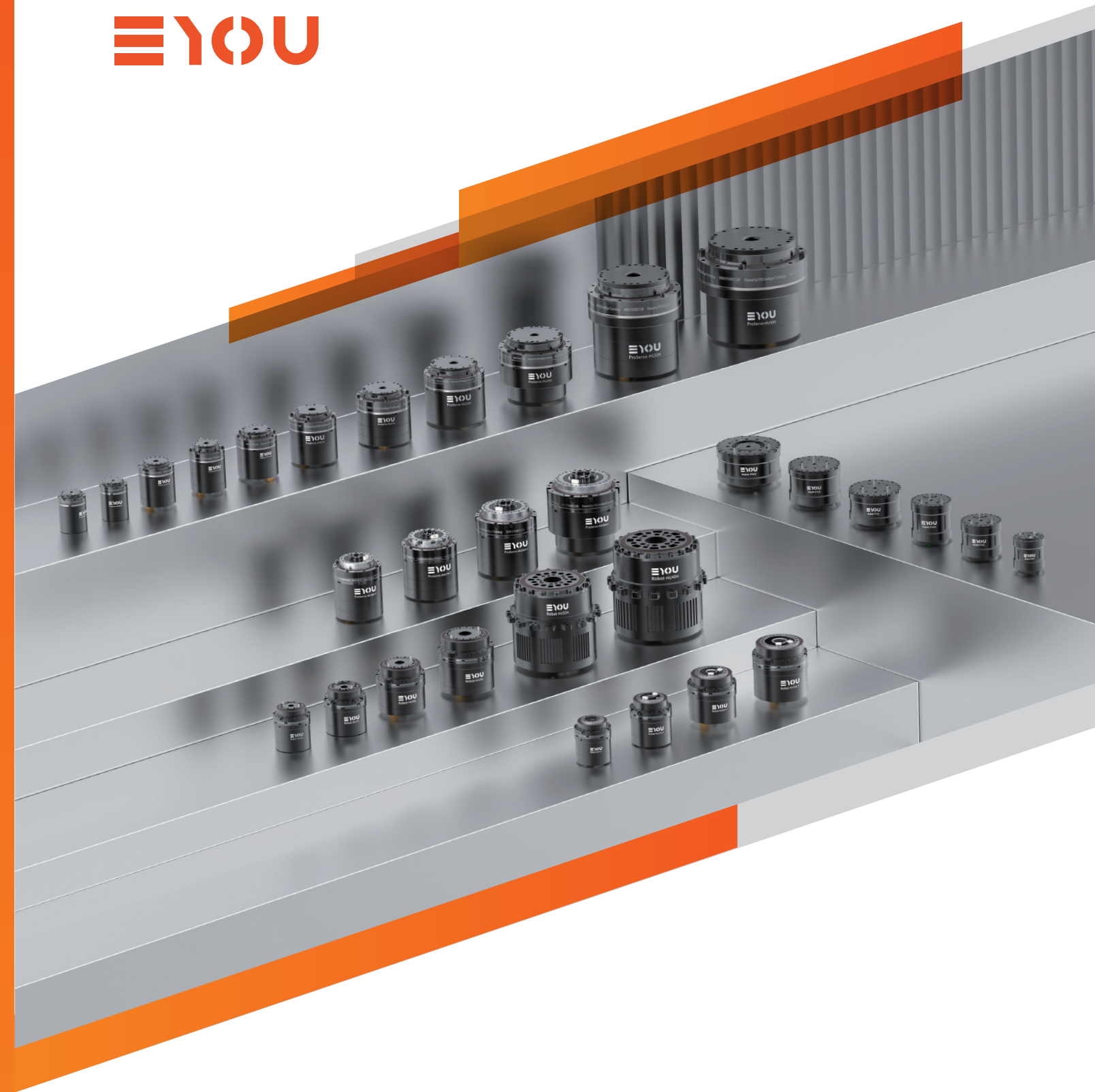




Articulating a smarter future



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

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Humanoid Robot · Cobot · Industrial Automation
Integrated Servo Joint Module Selection Guide

Jiangsu EYUBOT Technology Co., Ltd

EYOU Technology was founded in 2018. The company has independently developed high-precision FOC algorithms for robot joints, and launched planetary, harmonic and integrated actuator joint modules, meeting diversified power requirements for the upper limbs, waist and lower limbs of humanoid robots.

In 2025, we reached a sales volume of 95,000 sets of joint modules, maintaining a leading market share in the harmonic joint segment. We have built China's first automated production line for robot joints. Backed by premium products and stable high-efficiency manufacturing capacity, we enable customers to realize rapid mass production and timely delivery, and accelerate the large-scale application and industrial deployment of humanoid robots.

Certifications



ISO



EMC

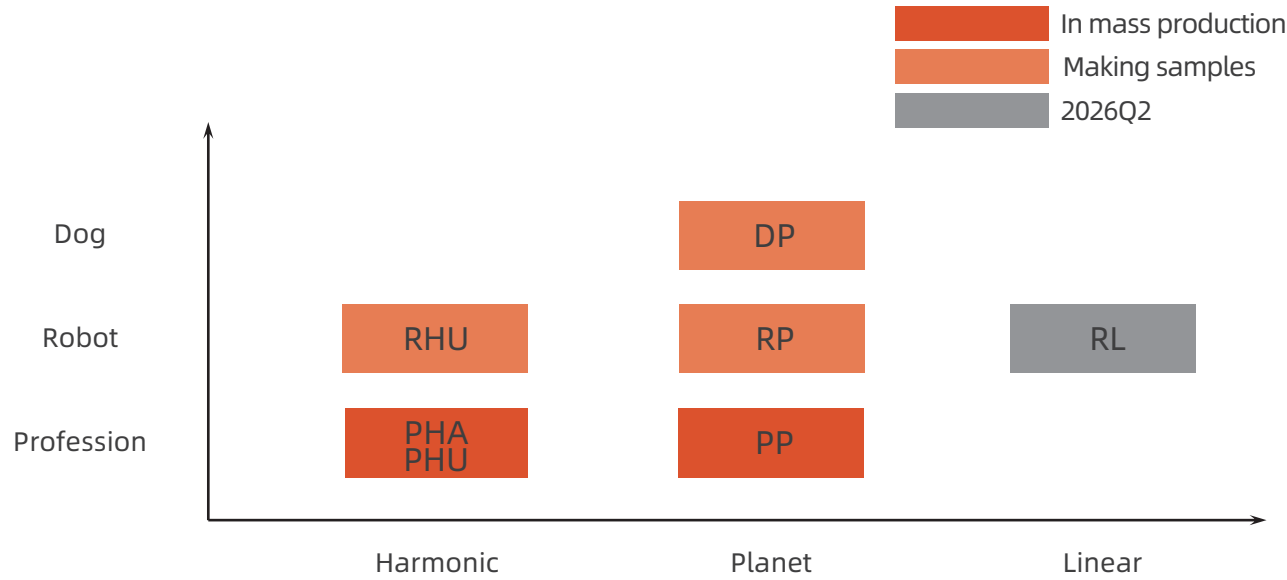


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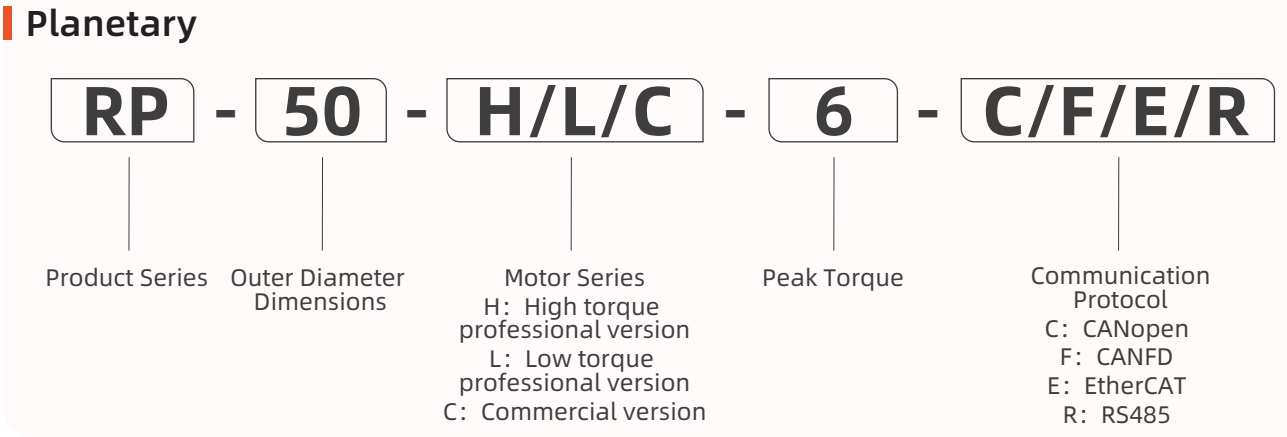
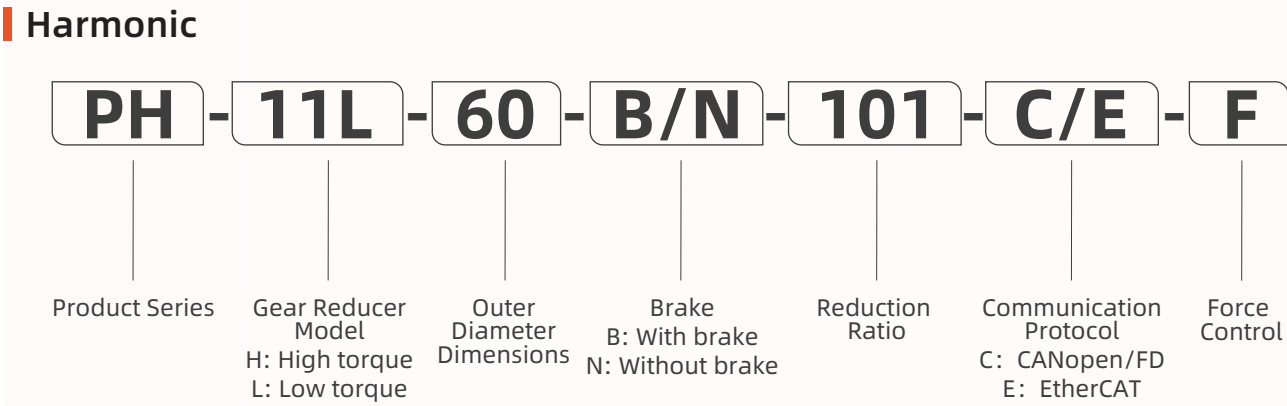
Partners



EYOU Product Matrix



Model Naming Convention



PHU Enhanced Harmonic Integrated Joint Module



Features

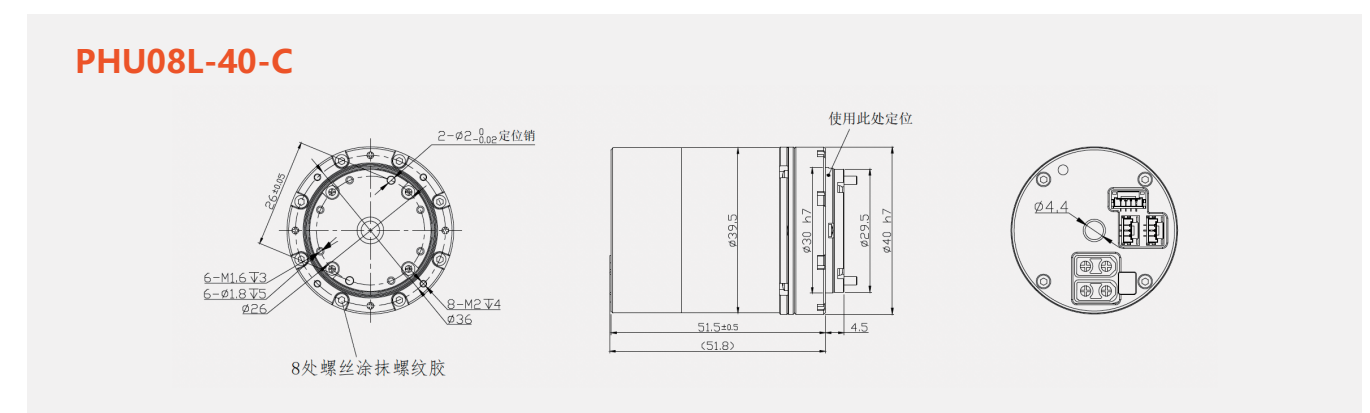
Operating Voltage	24-48V	Encoder Type	Dual Absolute Encoders
Operating Noise	<60db	Encoder Accuracy	19bit
Operating Temperature	-20-60℃	Power-off Brake	Optional
Service Life	> 8000h	Protocol	EtherCAT/CANopen

Specifications

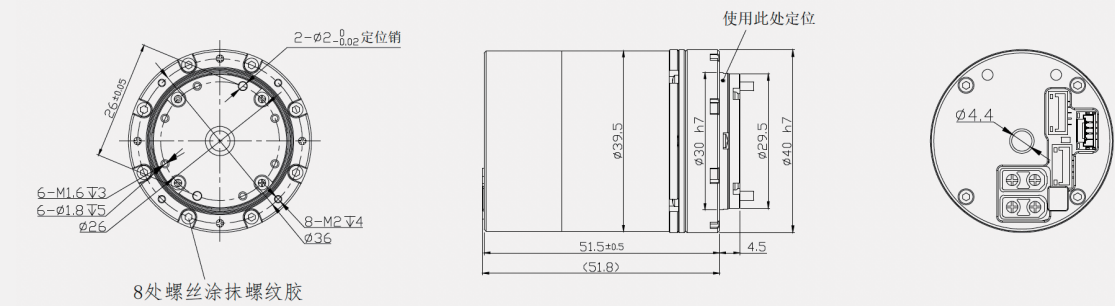
Model	Dimensions (mm)	Hollow Bore Diameter (mm)	Weight (g)	Reduction Ratio	Rated Output Power (@2000rpm) (W)	Rated Torque (@2000rpm) (N.m)	Average Output Torque (N.m)	Peak Start-Up Torque (N.m)	Max. Allowable Momentary Torque (N.m)
PHU08L-40	φ40*56	4.4	N:196	51	5	1.25	1.6	2.3	4.6
				101	3	1.65	2.3	3.3	6.3
PHU11L-52	φ52*65	8	B:392 N:355	51	10	2.4	3.5	5.8	11.5
				101	6	3	5.5	6.5	15

Model	Dimensions (mm)	Hollow Bore Diameter (mm)	Weight (g)	Reduction Ratio	Rated Output Power (@2000rpm) (W)	Rated Torque (@2000rpm) (N.m)	Average Output Torque (N.m)	Peak Start-Stop Output Torque (N.m)	Max. Allowable Momentary Torque (N.m)
PHU11H-52	φ52*70	8	B:441 N:403	51	14	3.5	5.5	8.3	17
				101	10	5	8.9	11	25
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:893 N:812	51	27	6.6	8.6	23	43
				101	20	9.6	13.5	34	66
PHU17H-80	φ80*78	10.8	B:1240 N:1143	51	81	19.8	32	42	86
				101	62	30	49	66	134
PHU20H-90	φ90*85.8	13	B:1739 N:1582	81	109	42	58	91	158
				101	104	50	61	102	182
				121	87	50	61	108	182
PHU25H-110	φ110*94	13	B:2545 N:2354	81	202	78	107	169	315
				101	174	84	133	194	351
				121	145	84	133	207	376
PHU32H-142	φ142*144	22	B:6130 N:5650	81	377	146	206	376	702
				101	350	169	267	411	800
				121	293	169	267	436	848
				161	220	169	267	459	848
PHU40H-170	φ170*149	23	B:9160 N:8520	81	659	255	351	641	1210
				101	664	320	460	702	1334
				121	554	320	557	762	1458
				161	416	320	557	800	1458

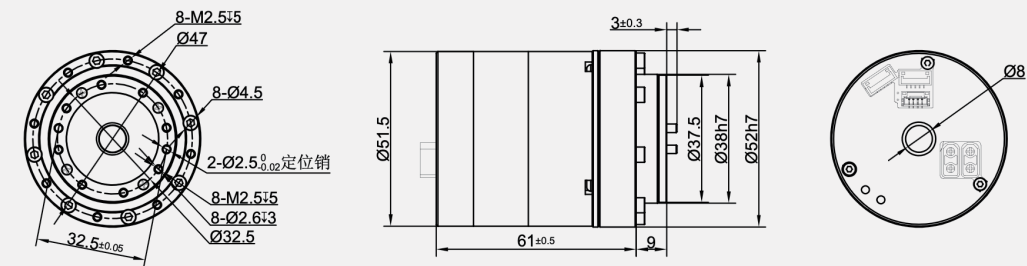
Product Details



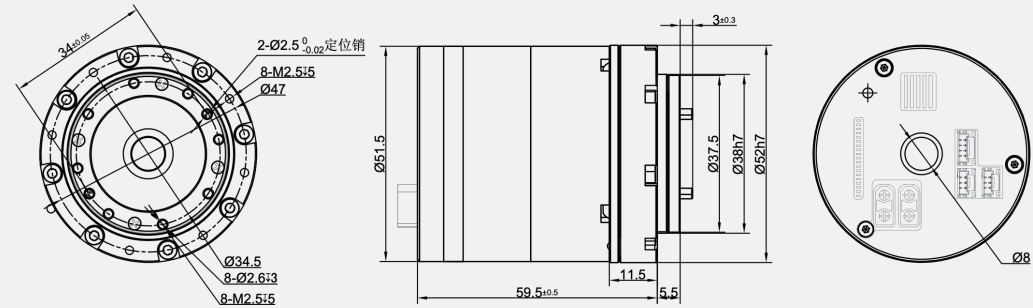
PHU08L-40-E



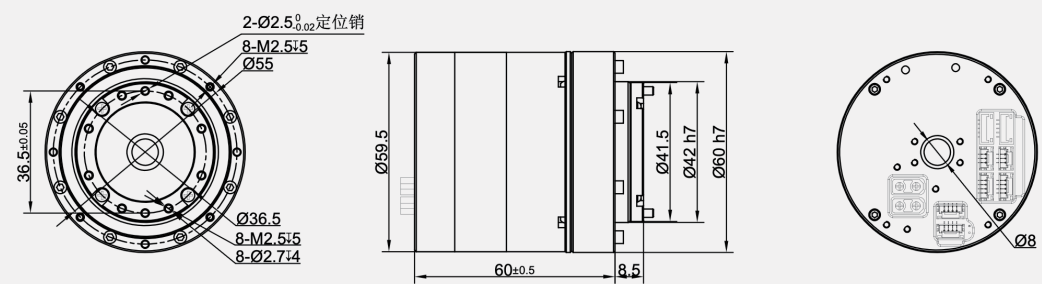
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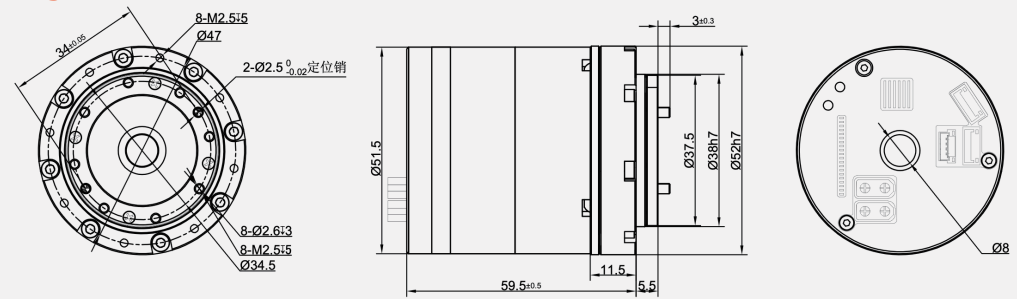
PHU11L-52-C



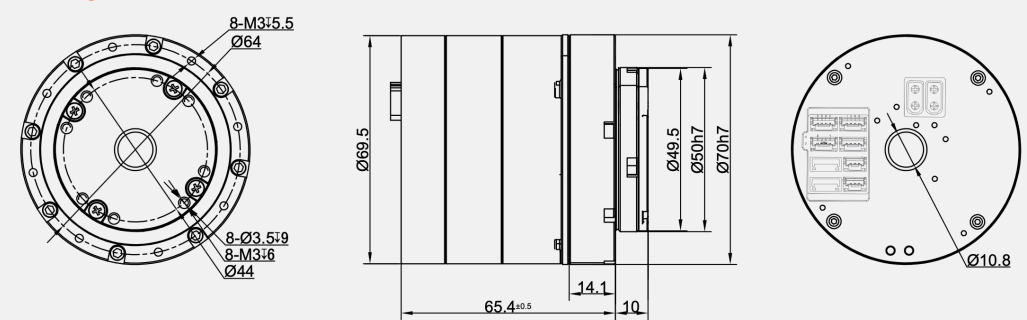
PHU11H-60



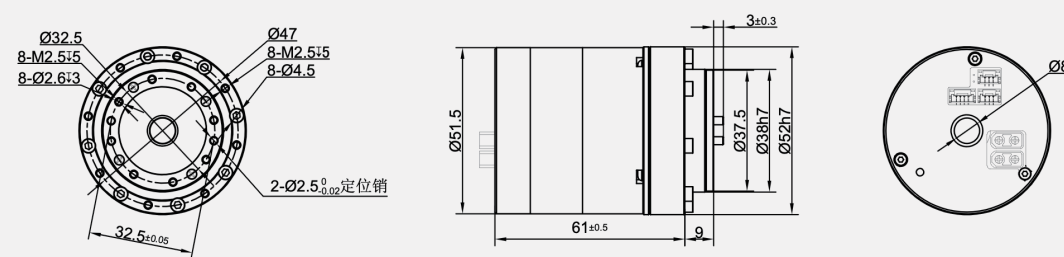
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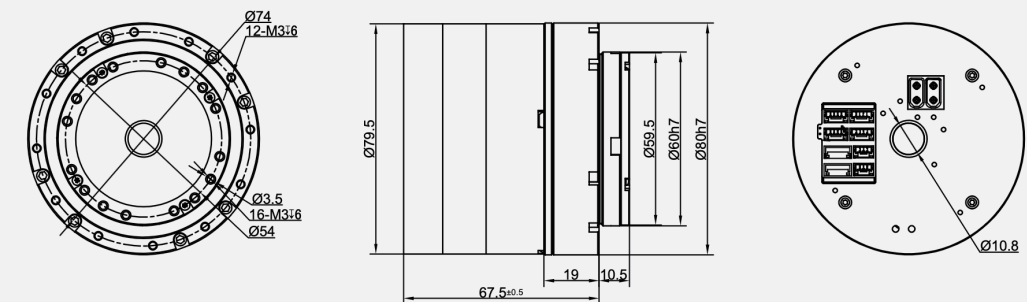
PHU14H-70



PHU11H-52-C



PHU17H-80



PHU-F Force Control Enhanced Harmonic Integrated Joint Module



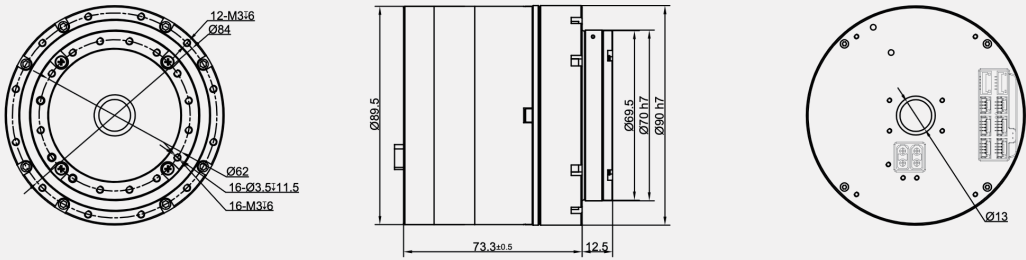
Features

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/CANopen

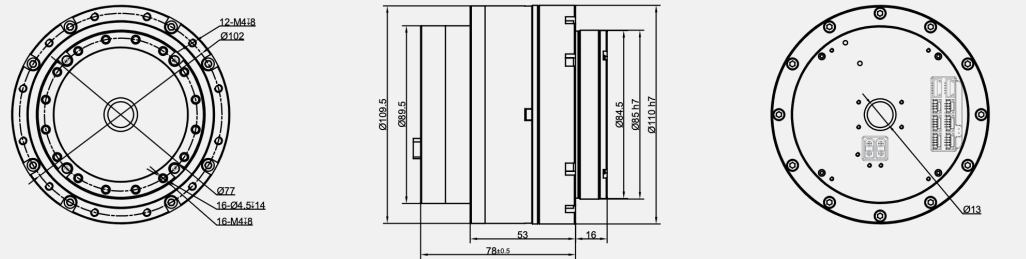
Specifications

Model	Dimensions (mm)	Hollow Bore Diameter (mm)	Weight (g)	Reduction Ratio	Rated Output Power (@2000rpm) (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*84	9	B:981 N:906	50	28	6.6	8.6	23	43
				100	20	9.6	13.5	34	66
PHU17H-80-F	φ80*86	10	B:1350 N:1242	50	83	19.8	32	42	86
				100	63	30	49	66	134
PHU20H-90-F	φ90*94	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*106	13	B:2969 N:2782	80	204	78	107	169	315
				100	176	84	133	194	351
				120	147	84	133	207	376

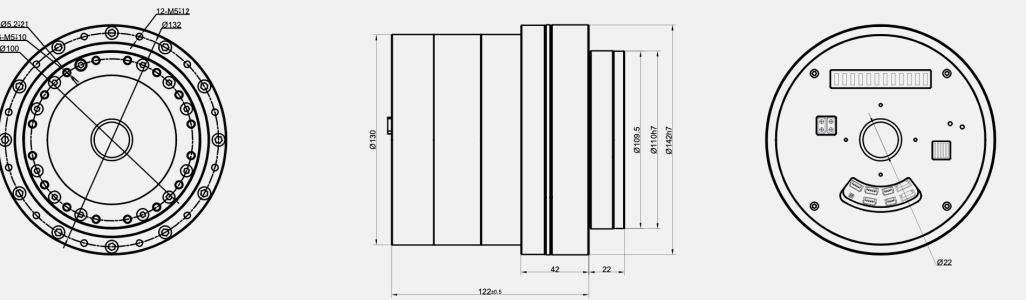
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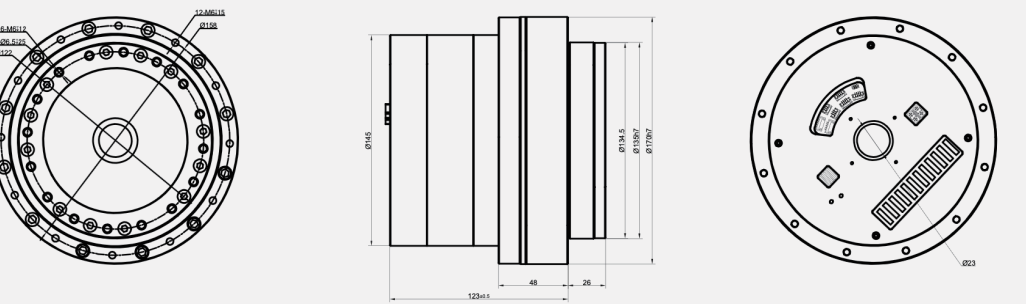
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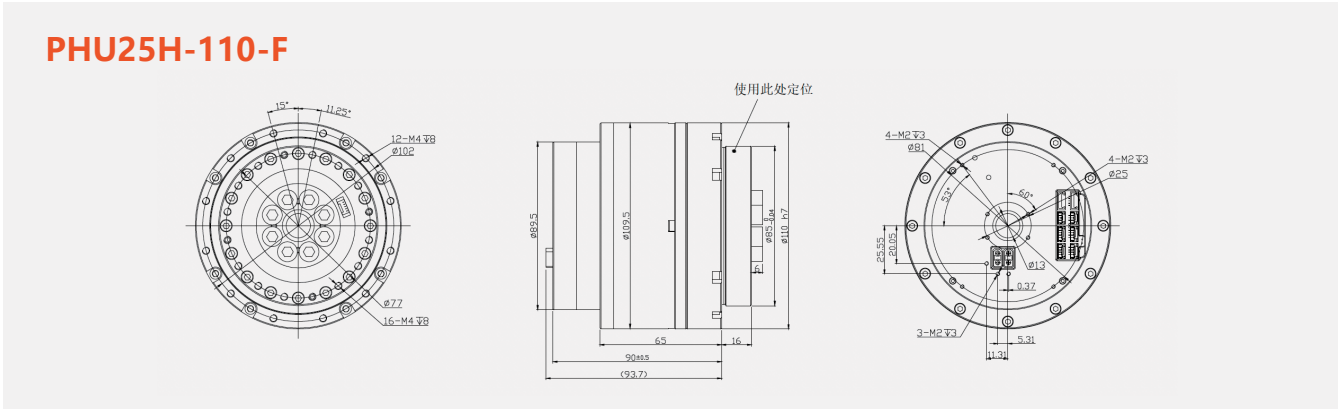
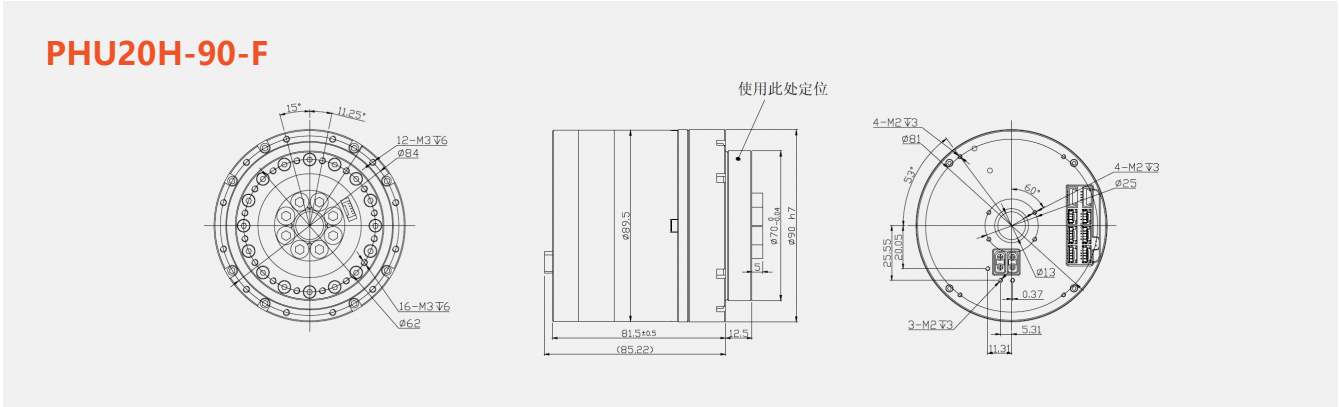
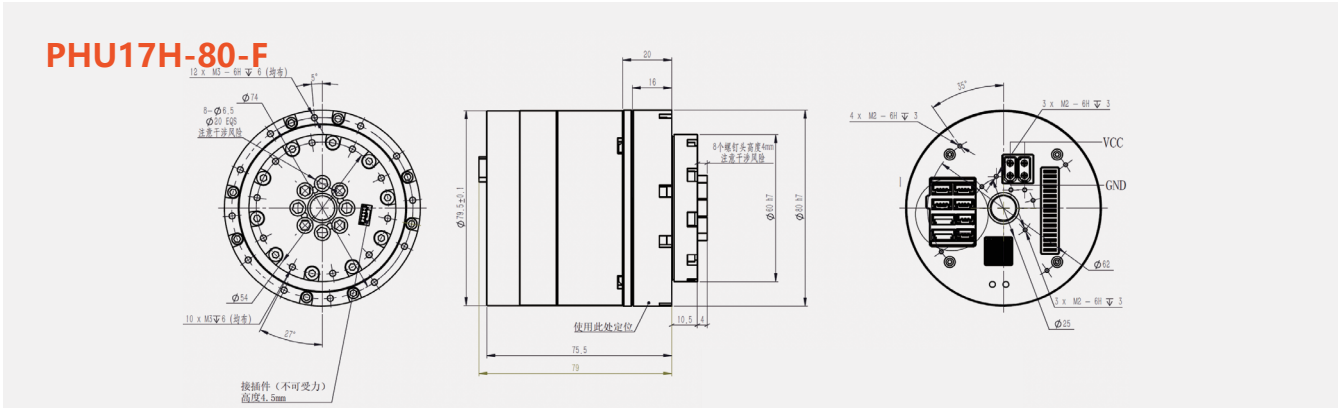
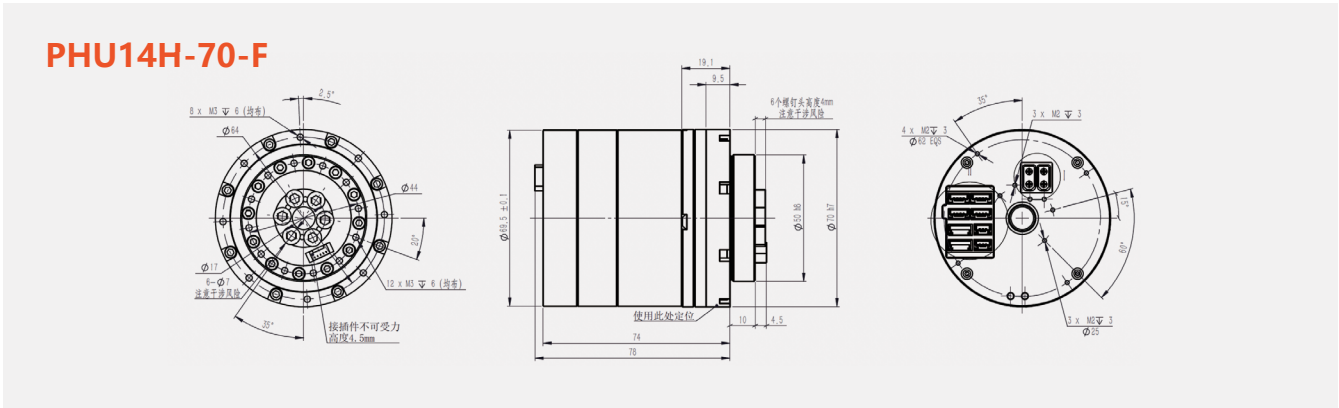
PHU32H-142



PHU40H-170



Product Details



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℃	Power-off Brake	Optional
Service Life	> 10000h	Protocol	EtherCAT/CANopen

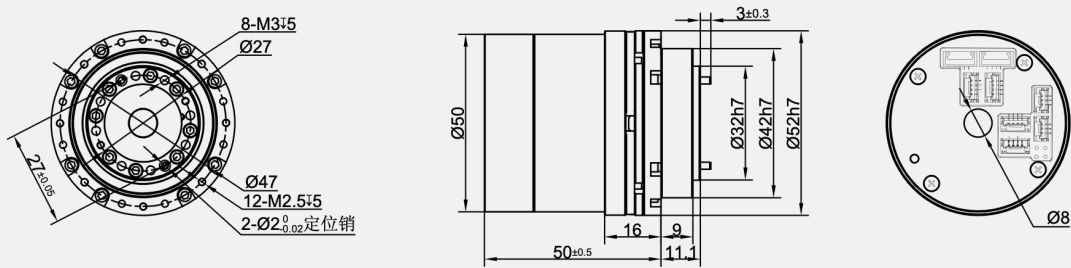
Specifications

Model	Dimensions (mm)	Hollow Bore Diameter (mm)	Weight (g)	Reduction Ratio	Rated Output Power (@2000rpm) (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*61.1	8	B:397 N:382	50	15	3.7	4.8	12	24
				80	14	5.4	7.7	16	35
				100	11	5.4	7.7	19	35
RHU17L-60	φ60*66	10	B:538 N:521	50	46	11	18	23	48
				80	39	15	19	29	61
				100	34	16	27	37	71

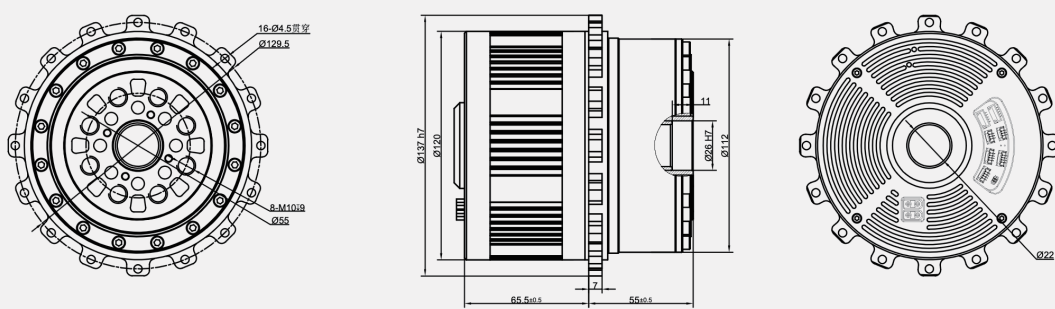
Model	Dimensions (mm)	Hollow Bore Diameter (mm)	Weight (g)	Reduction Ratio	Rated Output Power (@2000rpm) (W)	Rated Torque (@2000rpm) (N.m)	Average Output Torque (N.m)	Peak Start-Stop Output Torque (N.m)	Allowable Momentary Torque (N.m)
RHU20L-70	φ70*68	13	B:832 N:811	50	71	17	24	39	69
				80	63	24	33	51	89
				100	59	28	34	57	95
RHU25L-80	φ80*80.5	18	B:1294 N:1266	50	113	27	38	69	127
				80	115	44	60	96	179
				100	98	47	75	110	184
RHU32H-120	φ120*126	22	B:4360 N:4080	120	216	124	197	270	848
				160	221	169	267	459	848
RHU40H-130	φ130*136	22	B:6150 N:5820	120	433	248	448	648	1458
				160	475	363	557	800	1458

Product Details

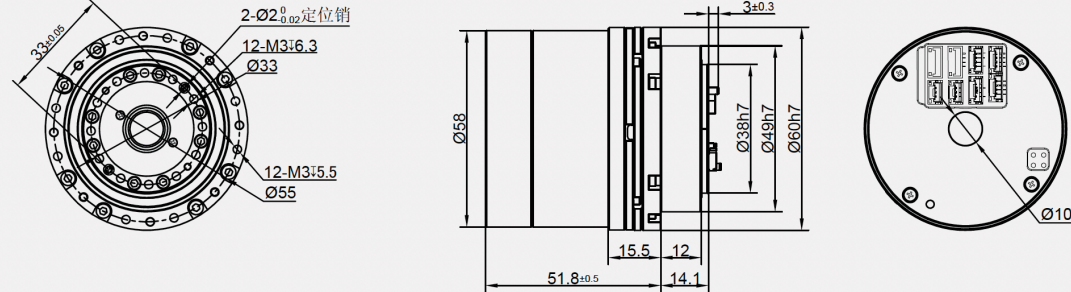
RHU14L-52



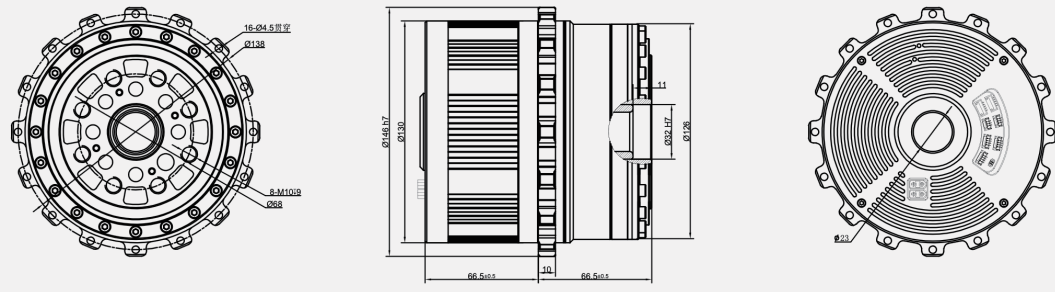
RHU32H-120



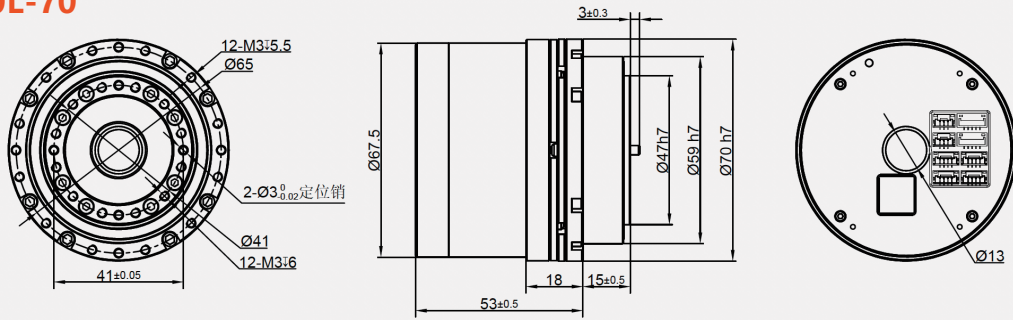
RHU17L-60



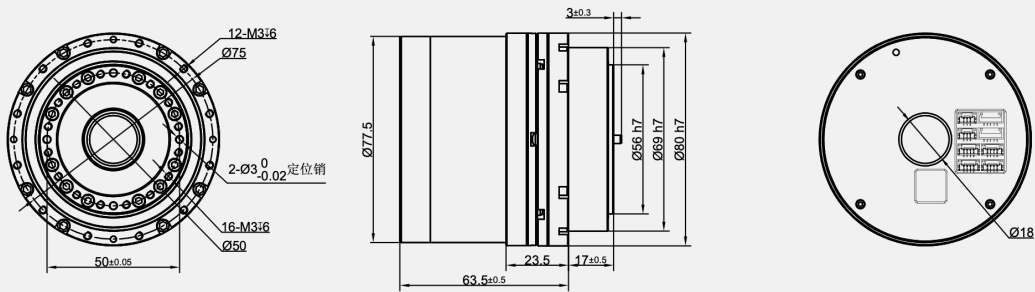
RHU40H-130



RHU20L-70



RHU25L-80



RHU-F Force-Control Humanoid Harmonic Integrated Joint



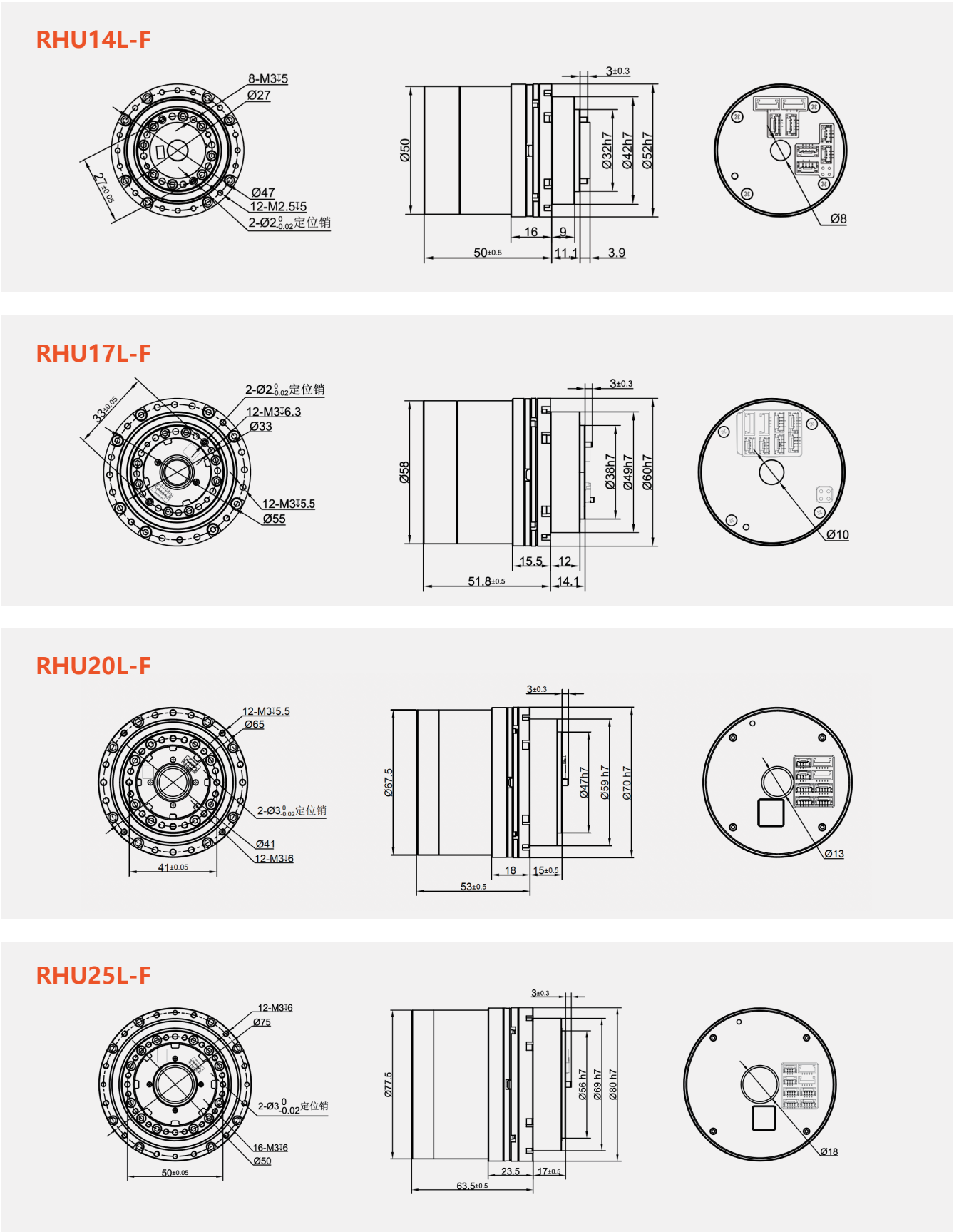
Features

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/CANopen

Specifications

Model	Dimensions (mm)	Hollow Bore Diameter (mm)	Weight (g)	Reduction Ratio	Rated Output Power (@2000rpm) (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	B:397 N:382	50	15	3.7	4.8	12	24
				80	14	5.4	7.7	16	35
				100	11	5.4	7.7	19	35
RHU17L-60-N-F	φ60*66	10	B:538 N:521	50	46	11	18	23	48
				80	39	15	19	29	61
				100	34	16	27	37	71
RHU20L-70-N-F	φ70*68	13	B:832 N:811	50	71	17	24	39	69
				80	63	24	33	51	89
				100	59	28	34	57	95
RHU25L-80-N-F	φ80*80.5	18	B:1294 N:1266	50	113	27	38	69	127
				80	115	44	60	96	179
				100	98	47	75	110	184

Product Details



PHA Ultra-Lightweight Harmonic Integrated Joint



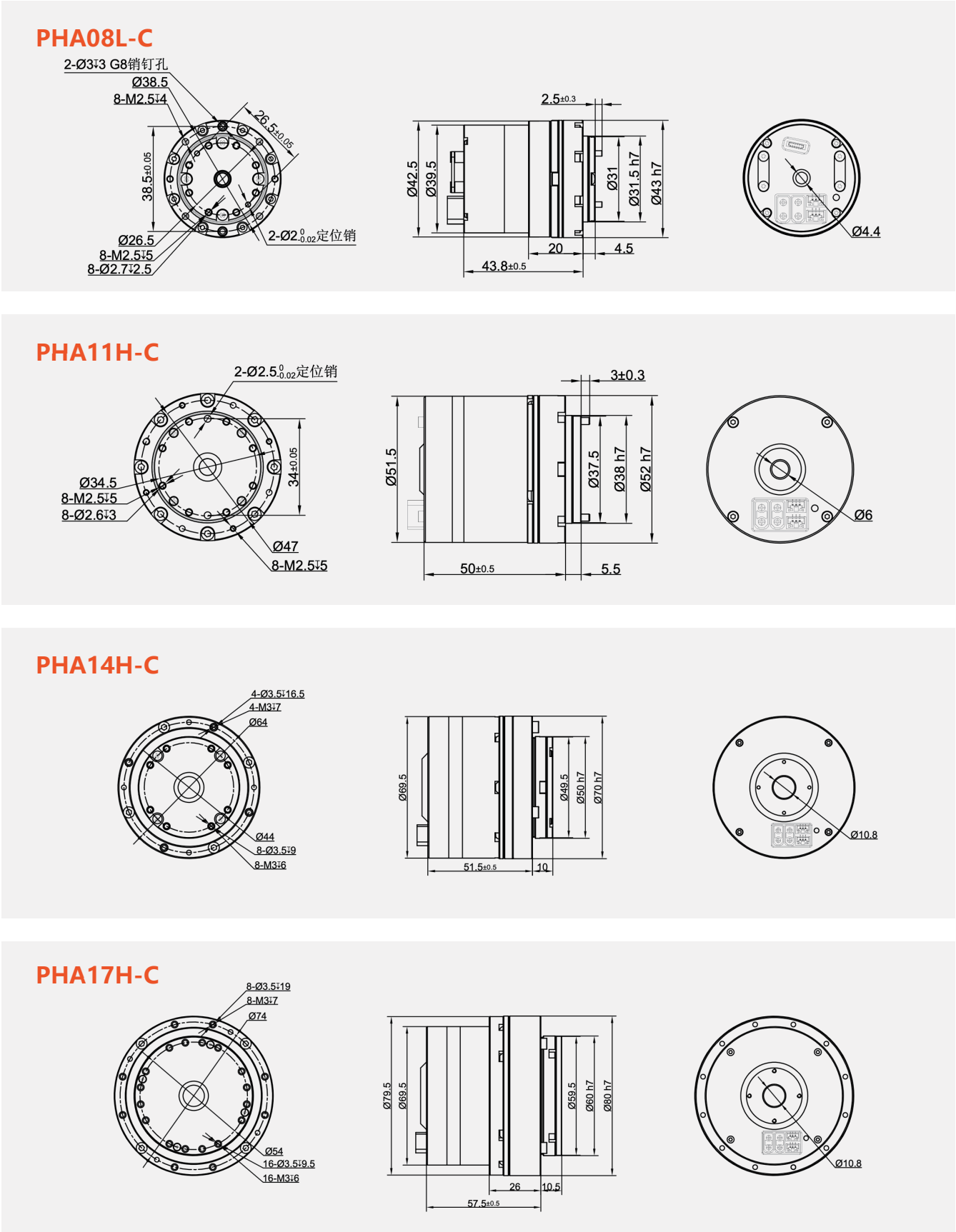
Features

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

Specifications

Model	Dimensions (mm)	Hollow Bore Diameter (mm)	Weight (g)	Voltage	Rated Output Power (@2000rpm) (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	25
PHA14H-101-C	φ70*61.5	10.8	N:645		20	9.6	13.5	34	66
PHA17H-101-C	φ80*68	10.8	N:900		63	30	49	66	134

Product Details



RP Humanoid Planetary Integrated Joint



Features

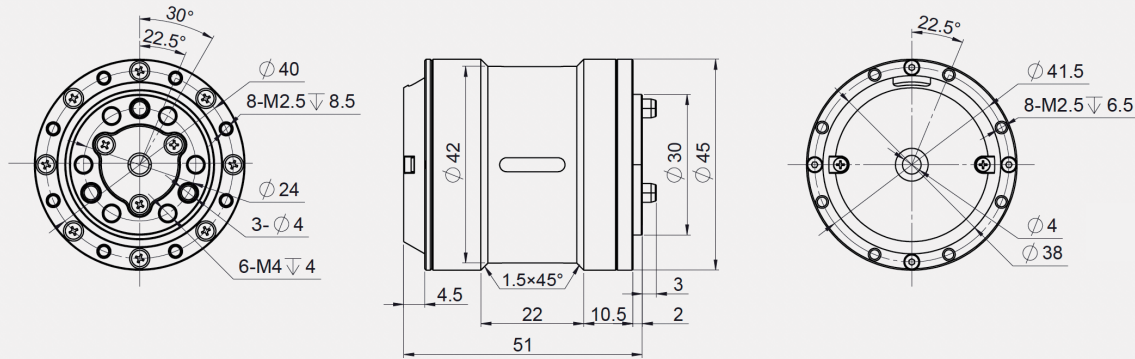
Operating Voltage	48V	Encoder Type	Inductive Absolute Encoder
Backlash	≤12arcmin	Encoder Accuracy	17bit input,19bit output
Operating Temperature	-20-45℃	Service Life	> 3000h
Operating Noise	< 65db	Protocol	CANOpen/CAN FD

Specifications

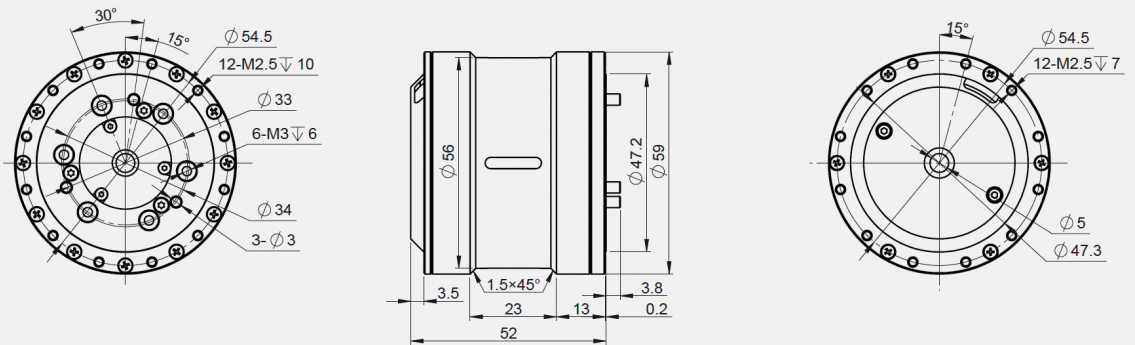
Model	Dimensions (mm)	Hollow Bore Diameter (mm)	Weight (g)	Reduction Ratio	Rate Power (W)	Rate speed (rpm)	Rate Torque (N.m)	Peak Torque (N.m)
RP40C	φ45*51	4	195	25	25	120	2	6
RP50L	φ59*52	5	380	19.53	79	150	5	15
RP50H	φ59*59	5	445	19.53	157	150	10	30
RP70L	φ77*50.5	6	645	20	163	130	12	36
RP70H	φ77*58	6	785	20	262	125	20	60
RP90L	φ96.5*55	8	1050	21.91	482	115	40	120

Product Details

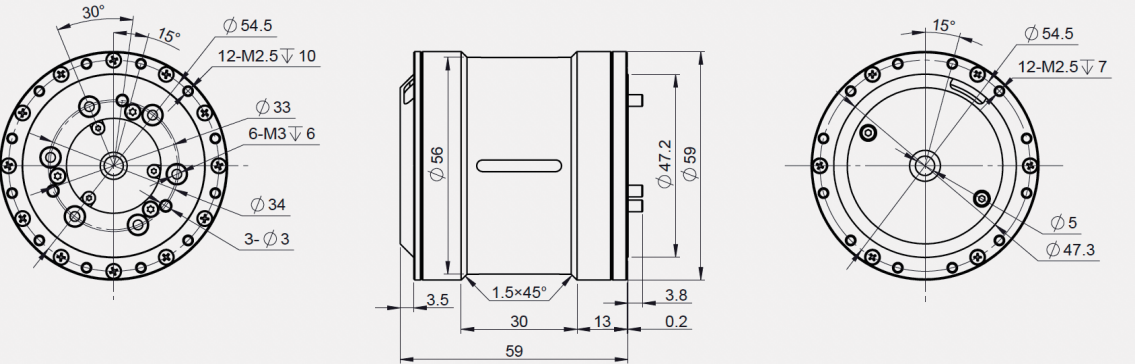
RP40C



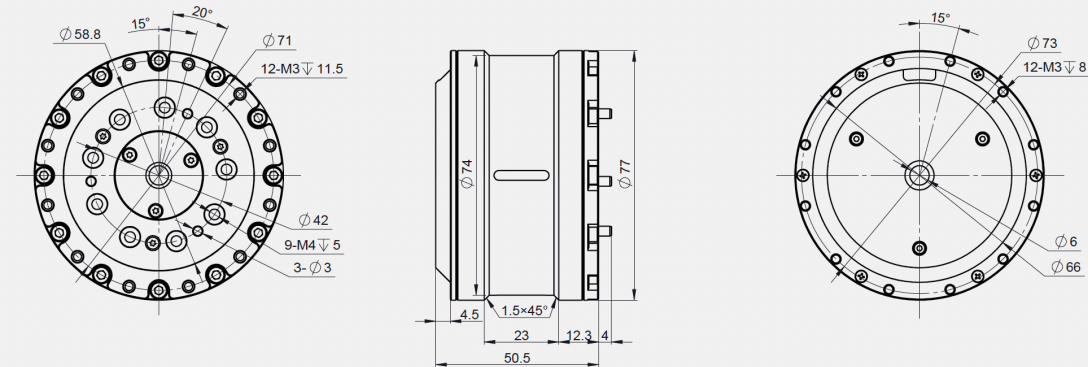
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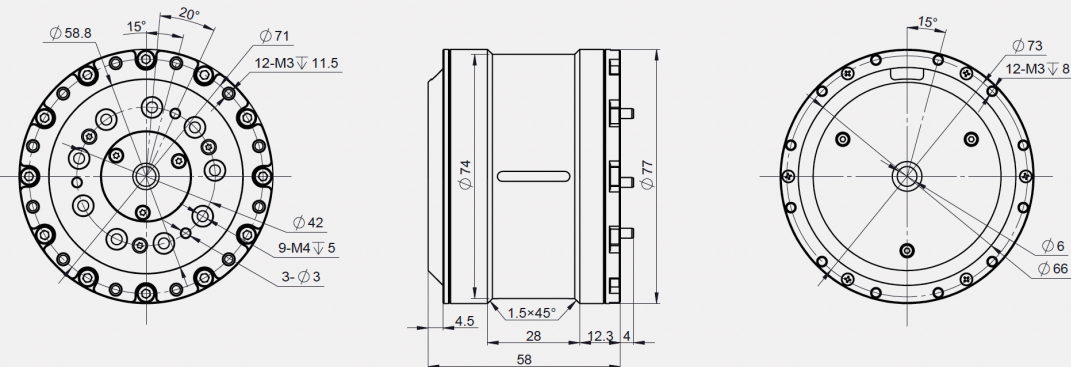
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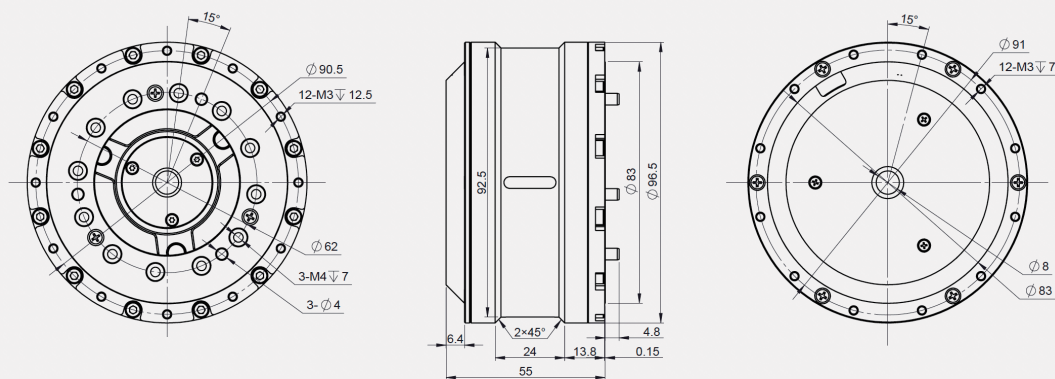
RP70L



RP70H



RP90L



PP Planetary Integrated Joint Module



Features

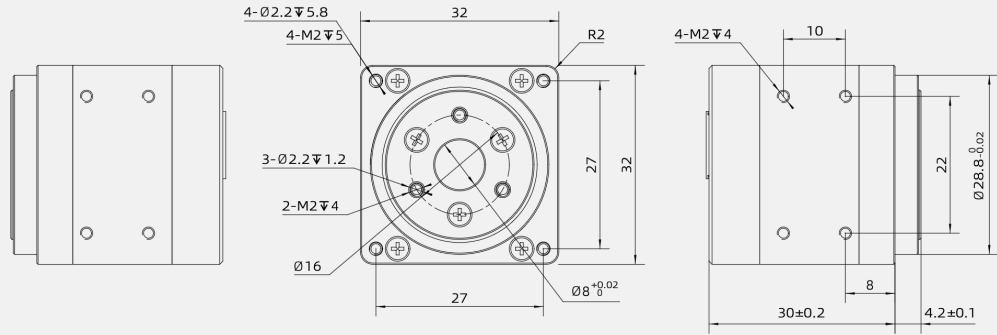
Motor type	Brushless Torque Motor	Encoder Type	Dual Absolute Encoders
Operating Noise	<60dB @ 1m	Operating Voltage	24V
Operating Temperature	-20-80°C	Protection Rating	IP54
Backlash	≤12 arcmin	Protocol	CAN

Specifications

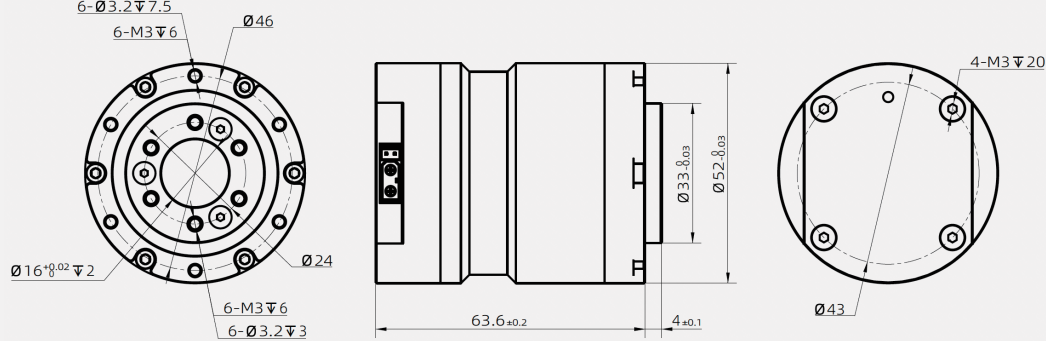
Model	Diameter	Lenth	Weight	Reduction Ratio	Max. Powe	Rate speed	Rate Torque	Peak Torque
PP05	32mm	33.4mm	86g	6	35W	50rpm	0.2Nm	0.48Nm
PP08	40mm	52mm	189g	36	36W	50rpm	1.0Nm	2.2Nm
PP08D	40mm	48mm	199g	36	36W	50rpm	1.0Nm	2.2Nm
PP11	52mm	64mm	390g	36	60W	50rpm	6.6Nm	10Nm
PP11D	52mm	61mm	437g	36	60W	50rpm	6.6Nm	10Nm
PP11L	52mm	82mm	521g	36	72W	50rpm	10Nm	18Nm

Product Details

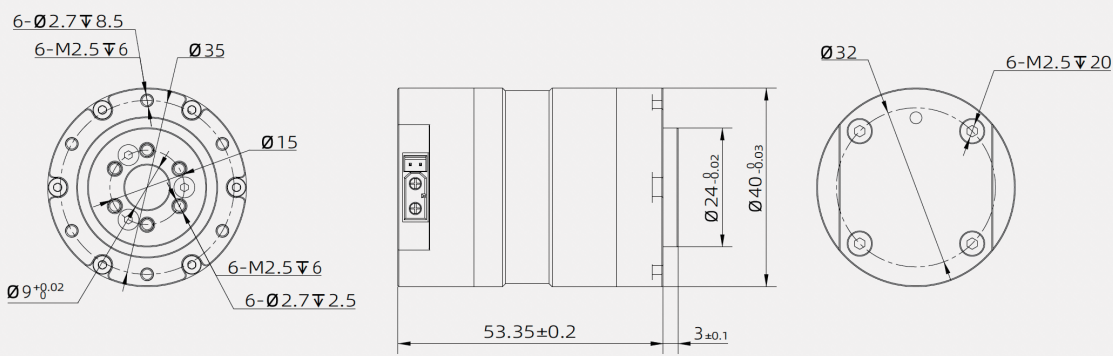
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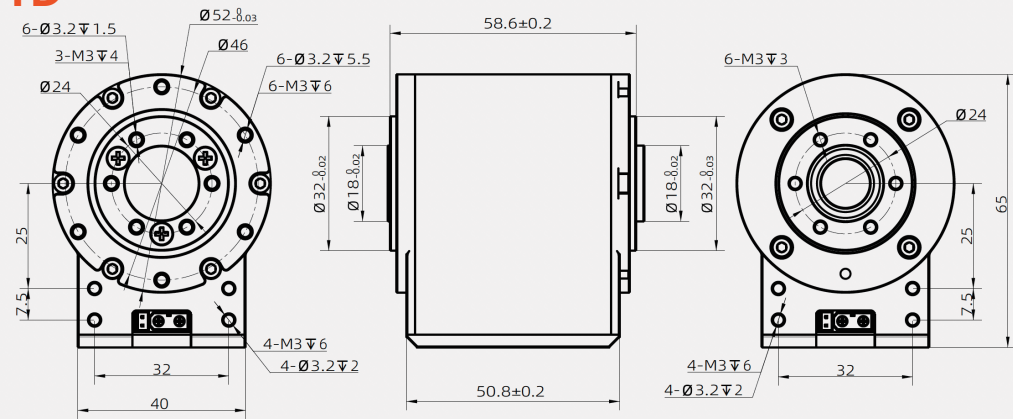
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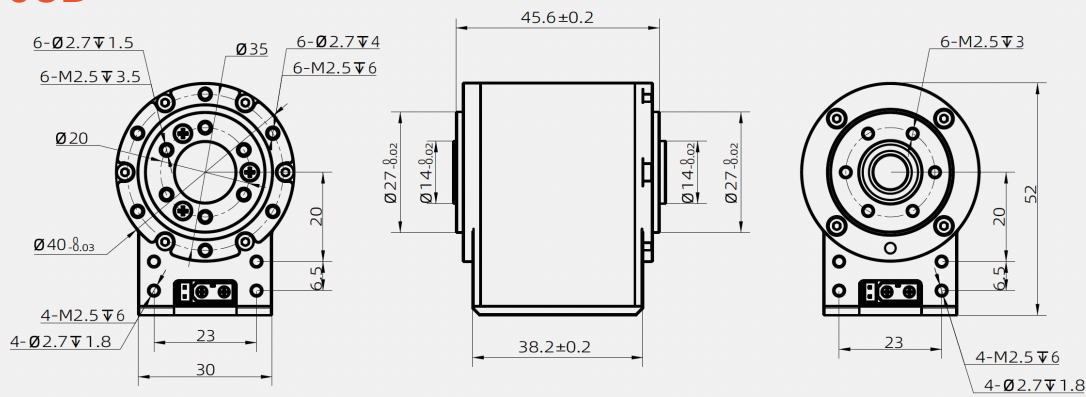
PP08



PP11D



PP08D



PP11L

