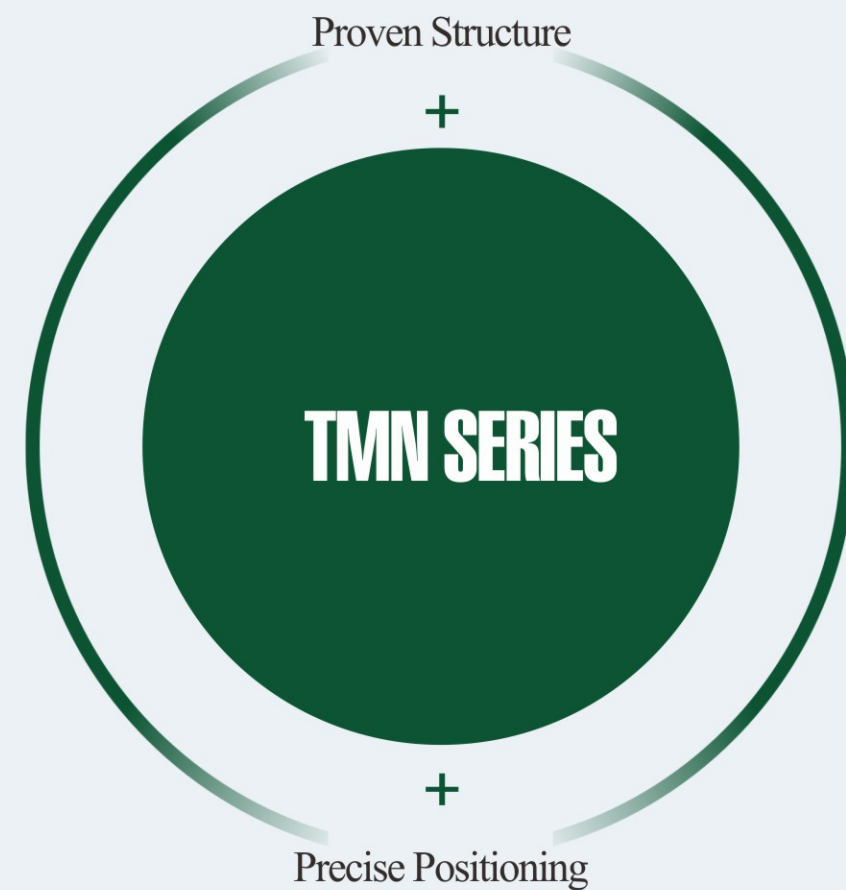


Hollow Rotating Platform



The hollow rotating platform can be driven by different brand servo motors with high precision. The operation is stable and the positioning is precision.

GEARKO[®]

DRIVES THE PRECISION





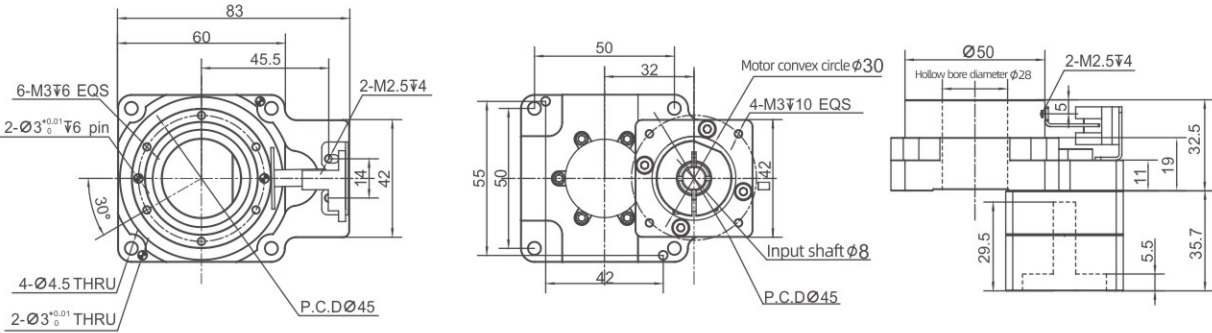
TMN 60 Series

Outline Dimension Table

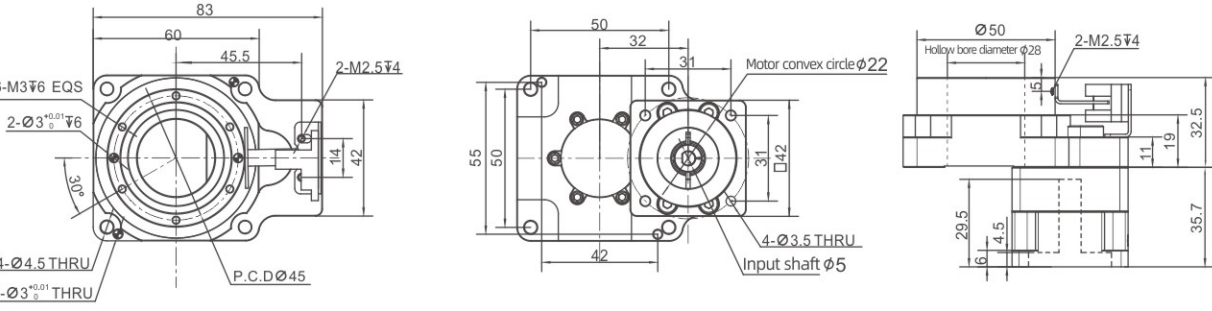
TMN60	—	10	—	ST
↓		↓		↓
Model		Reduction ratio		Motor type
TMN060		1:05		Stepping motor
TMN085		1:10		SV: AC Servo motor
TMN130		1:18		
TMN200				
TMN280				
TMN450				



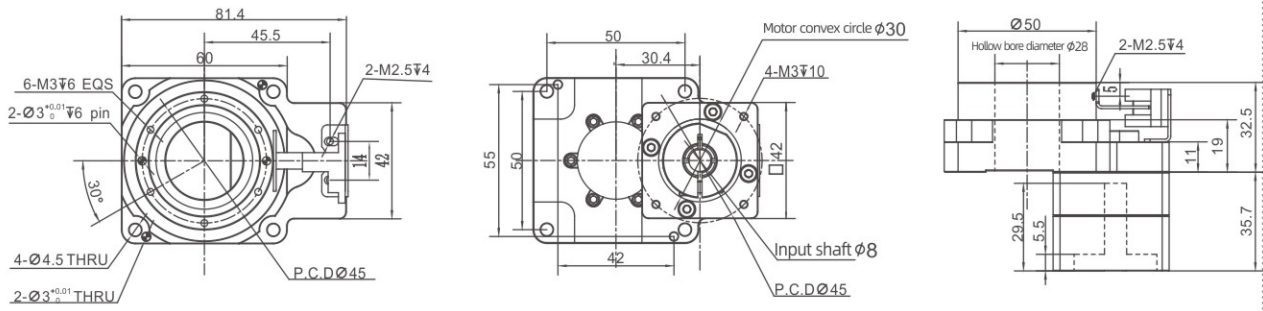
50/100 wAC servo motor



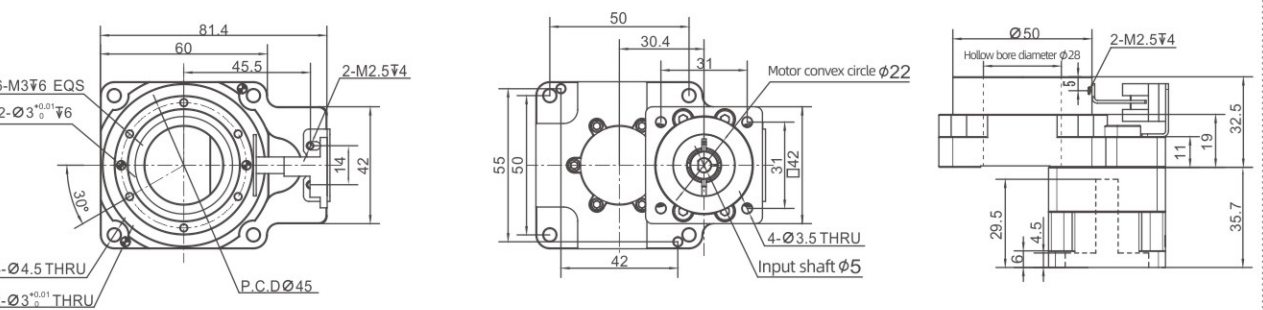
50/100 wAC servo motor



Model 42 stepper motor



Model 42 stepper motor



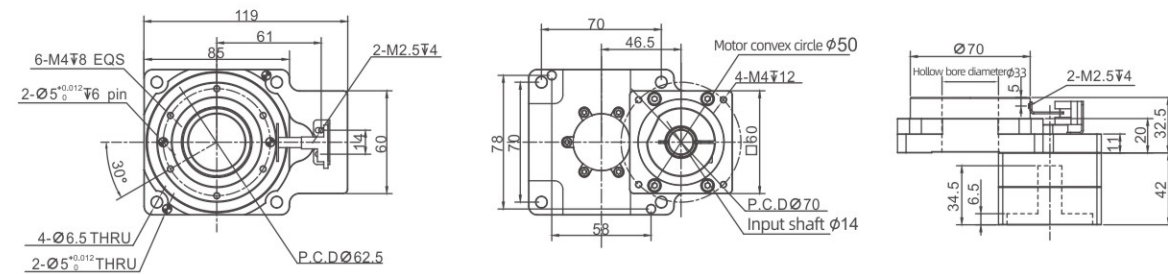
Adaptive Motor	50/100 wAC Servo Motor		42 Stepper Motor	
Rotary platform bearing	Crossed roller bearing	Crossed roller bearing	Crossed roller bearing	Crossed roller bearing
Reduction ratio	1:5	1:10	1:5	1:10
Allowable torque	5Nm	4Nm	5Nm	4Nm
Allowable disk speed	≤200r/min Intermittent operation	≤200r/min Intermittent operation	≤200r/min Intermittent operation	≤200r/min Intermittent operation
Allow inertial load	8Nm	6Nm	8Nm	6Nm
Allowable axial load	280N	280N	280N	280N
Positioning accuracy	≤1 arcmin	≤1 arcmin	≤1 arcmin	≤1 arcmin
Repeated positioning accuracy	≤15 arcsec	≤15 arcsec	≤15 arcsec	≤15 arcsec
Rotating platform parallelism	0.01mm	0.01mm	0.01mm	0.01mm
Rotating platform concentricity	0.01mm	0.01mm	0.01mm	0.01mm
Precision life	20000h Intermittent operation	20000h Intermittent operation	20000h Intermittent operation	20000h Intermittent operation
Protection class	IP40	IP40	IP40	IP40
weight	0.6Kg	0.6Kg	0.6Kg	0.6Kg

The above technical parameters are for reference only. Actually, according to the data provided by the customer, relevant technical parameters and dimensions will be issued.

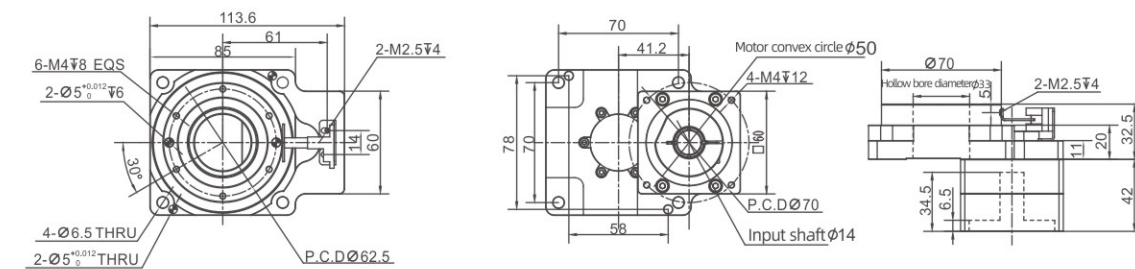
TMN85 Series

Outline Dimension Table

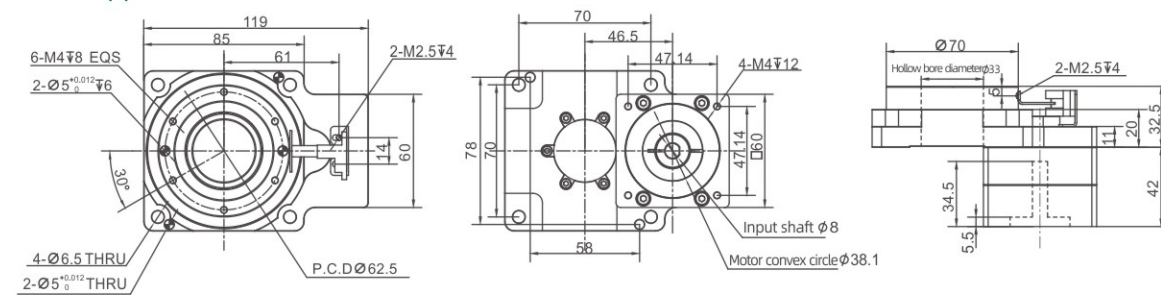
200/400 WAC servo motor



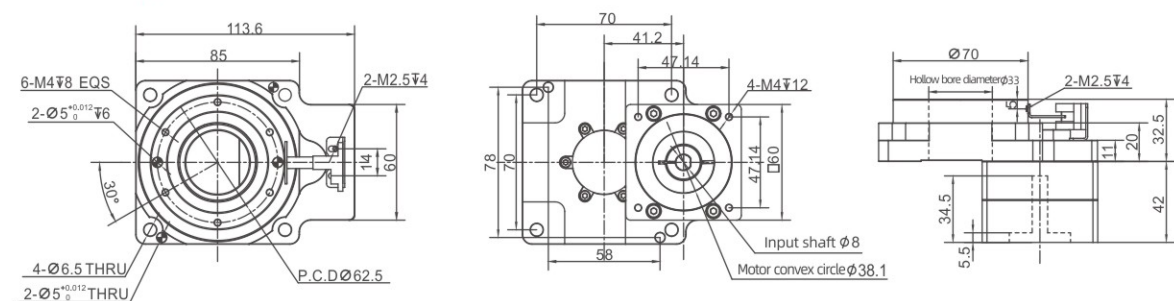
200/400 WAC servo motor



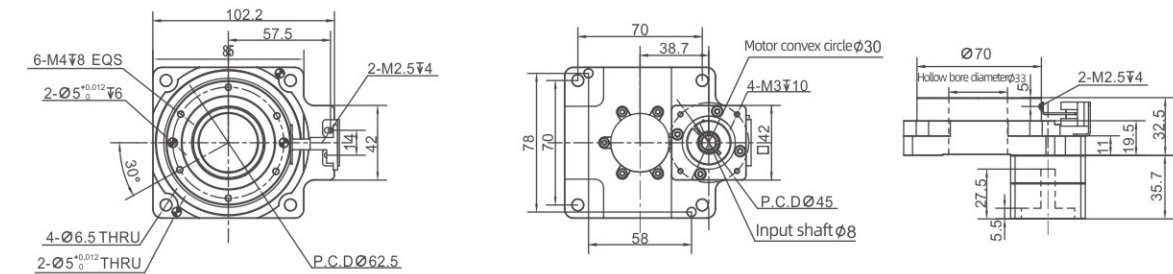
Model 57 stepper motor



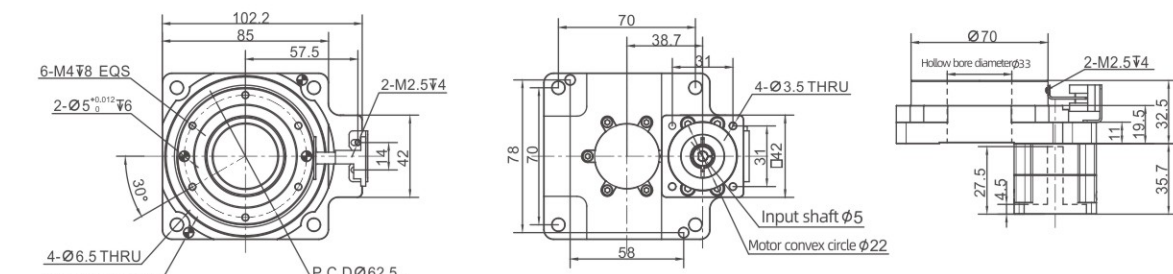
Model 57 stepper motor



50/100 W AC servo motor



Model 46 stepper motor

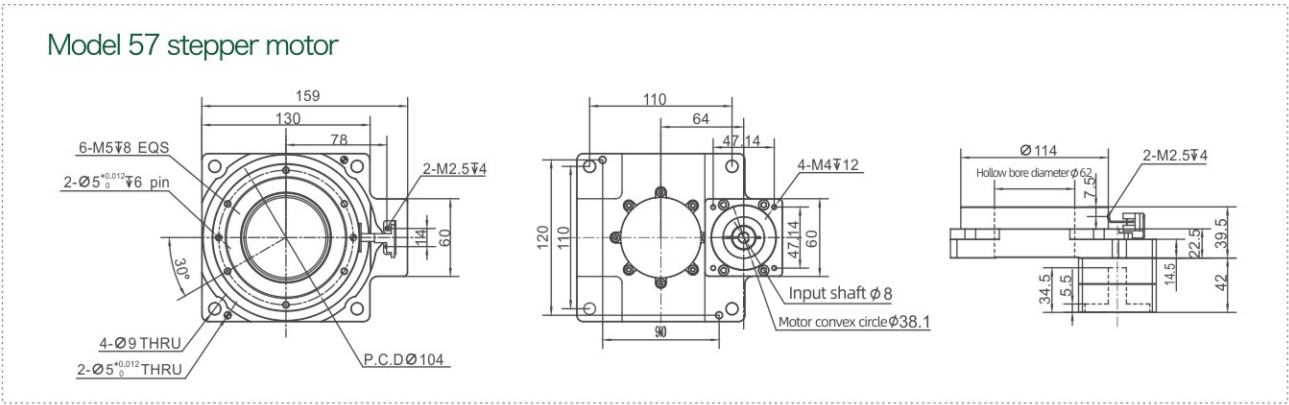
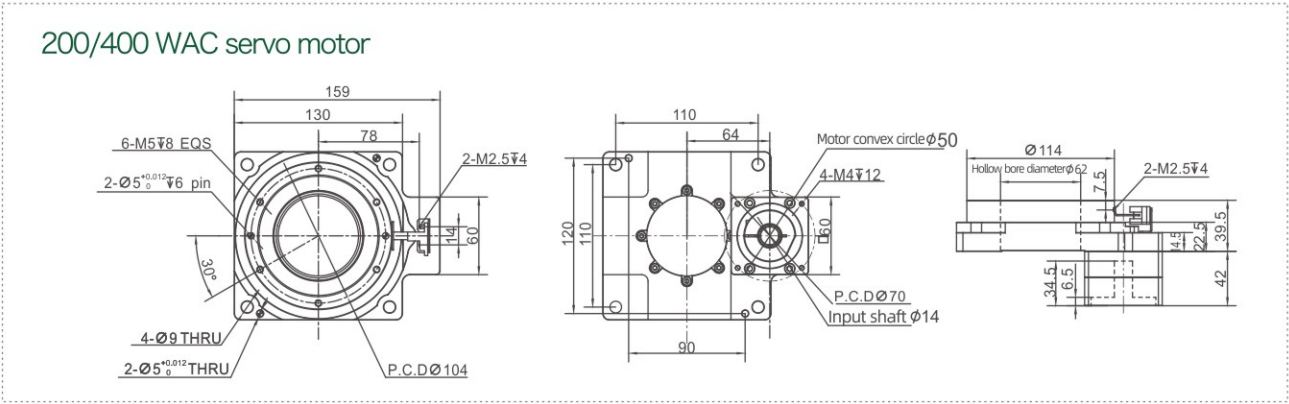


Adaptive Motor	200/400 WAC Servo Motor		57 Stepper Motor		50/100 W AC Servo Motor	42 Stepper Motor
Rotary platform bearing	Crossed roller bearing		Crossed roller bearing		Crossed roller bearing	
Reduction ratio	1:5	1:10	1:5	1:10	1:18	1:18
Allowable torque	30Nm	20Nm	30Nm	20Nm	12Nm	12Nm
Allowable disk speed	≤200r/min Intermittent operation		≤200r/min Intermittent operation		≤200r/min Intermittent operation	
Allow inertial load	60Nm	32Nm	60Nm	32Nm	20Nm	20Nm
Allowable axial load	500N	500N	500N	500N	500N	500N
Positioning accuracy	≤1arcmin	≤1arcmin	≤1arcmin	≤1arcmin	≤1arcmin	≤1arcmin
Repeated positioning accuracy	≤15arcsec	≤15arcsec	≤15arcsec	≤15arcsec	≤15arcsec	≤15arcsec
Rotating platform parallelism	≤0.01mm	≤0.01mm	≤0.01mm	≤0.01mm	≤0.01mm	≤0.01mm
Rotating platform concentricity	≤0.01mm	≤0.01mm	≤0.01mm	≤0.01mm	≤0.01mm	≤0.01mm
Precision life	20000h Intermittent operation		20000h Intermittent operation		20000h Intermittent operation	
Protection class	IP40	IP40	IP40	IP40	IP40	IP40
weight	1.2Kg	1.2Kg	1.2Kg	1.2Kg	1.2Kg	1.2Kg

The above technical parameters are for reference only. Actually, according to the data provided by the customer, relevant technical parameters and dimensions will be issued.

TMN130 Series

Outline Dimension Table

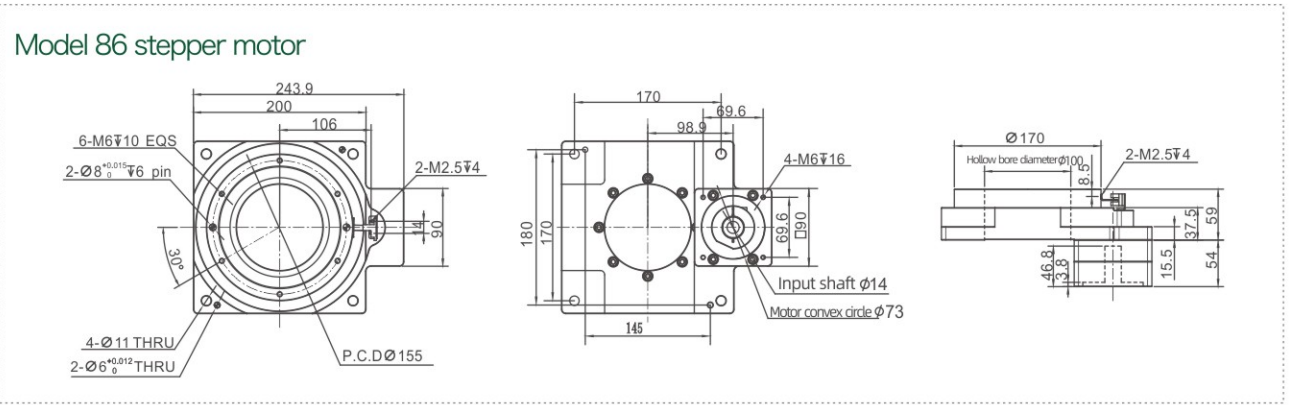
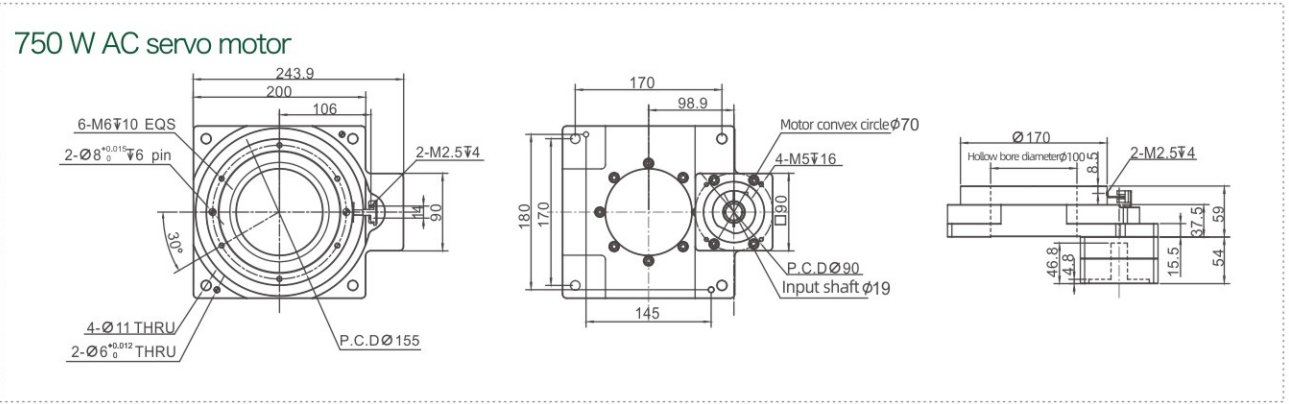


Adaptive Motor	200/400 W AC Servo Motor		57 Stepper Motor Servo Motor	
Rotary platform bearing	Crossed roller bearing		Crossed roller bearing	
Reduction ratio	1:10	1:18	1:10	1:18
Allowable torque	52Nm	32Nm	52Nm	32Nm
Allowable disk speed	≤ 200 r/min Intermittent operation		≤ 200 r/min Intermittent operation	
Allow inertial load	72Nm	52Nm	72Nm	52Nm
Allowable axial load	2000N	2000N	2000N	2000N
Positioning accuracy	≤ 1 arcmin	≤ 1 arcmin	≤ 1 arcmin	≤ 1 arcmin
Repeated positioning accuracy	≤ 15 arcsec	≤ 15 arcsec	≤ 15 arcsec	≤ 15 arcsec
Rotating platform parallelism	≤ 0.01 mm	≤ 0.01 mm	≤ 0.01 mm	≤ 0.01 mm
Rotating platform concentricity	≤ 0.01 mm	≤ 0.01 mm	≤ 0.01 mm	≤ 0.01 mm
Precision life	20000h Intermittent operation		20000h Intermittent operation	
Protection class	IP40	IP40	IP40	IP40
weight	2.5Kg	2.5Kg	2.5Kg	2.5Kg

The above technical parameters are for reference only. Actually, according to the data provided by the customer, relevant technical parameters and dimensions will be issued.

TMN200 Series

Outline Dimension Table



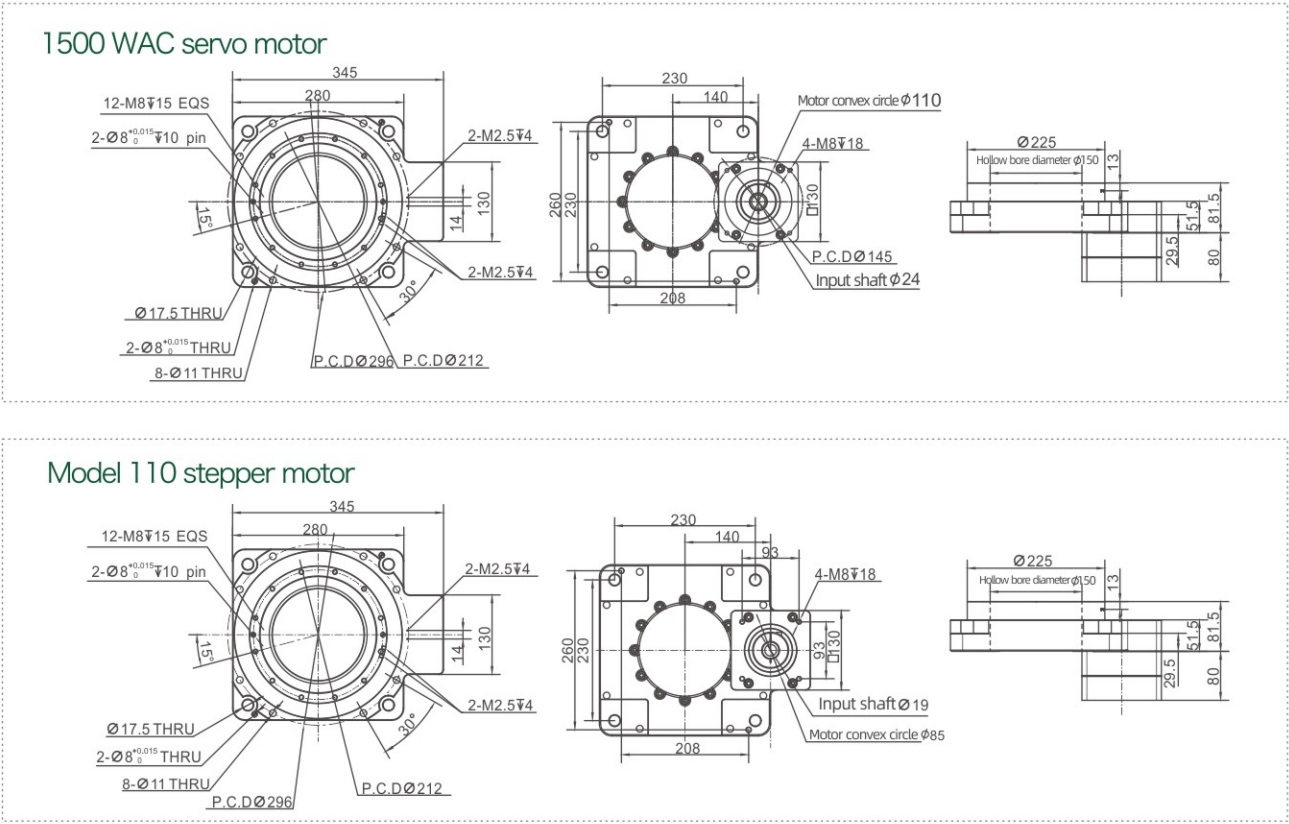
Adaptive Motor	750 W AC Servo Motor		Model 86 stepper motor Servo Motor	
Rotary platform bearing	Crossed roller bearing		Crossed roller bearing	
Reduction ratio	1:10	1:18	1:10	1:18
Allowable torque	90Nm	60Nm	90Nm	60Nm
Allowable disk speed	≤ 200 r/min Intermittent operation		≤ 200 r/min Intermittent operation	
Allow inertial load	135Nm	92Nm	135Nm	92Nm
Allowable axial load	4000N	4000N	4000N	4000N
Positioning accuracy	≤ 1 arcmin	≤ 1 arcmin	≤ 1 arcmin	≤ 1 arcmin
Repeated positioning accuracy	≤ 15 arcsec	≤ 15 arcsec	≤ 15 arcsec	≤ 15 arcsec
Rotating platform parallelism	≤ 0.01 mm	≤ 0.01 mm	≤ 0.01 mm	≤ 0.01 mm
Rotating platform concentricity	≤ 0.01 mm	≤ 0.01 mm	≤ 0.01 mm	≤ 0.01 mm
Precision life	20000h Intermittent operation		20000h Intermittent operation	
Protection class	IP40	IP40	IP40	IP40
weight	8Kg	8Kg	8Kg	8Kg

The above technical parameters are for reference only. Actually, according to the data provided by the customer, relevant technical parameters and dimensions will be issued.



TMN280 Series

Outline Dimension Table

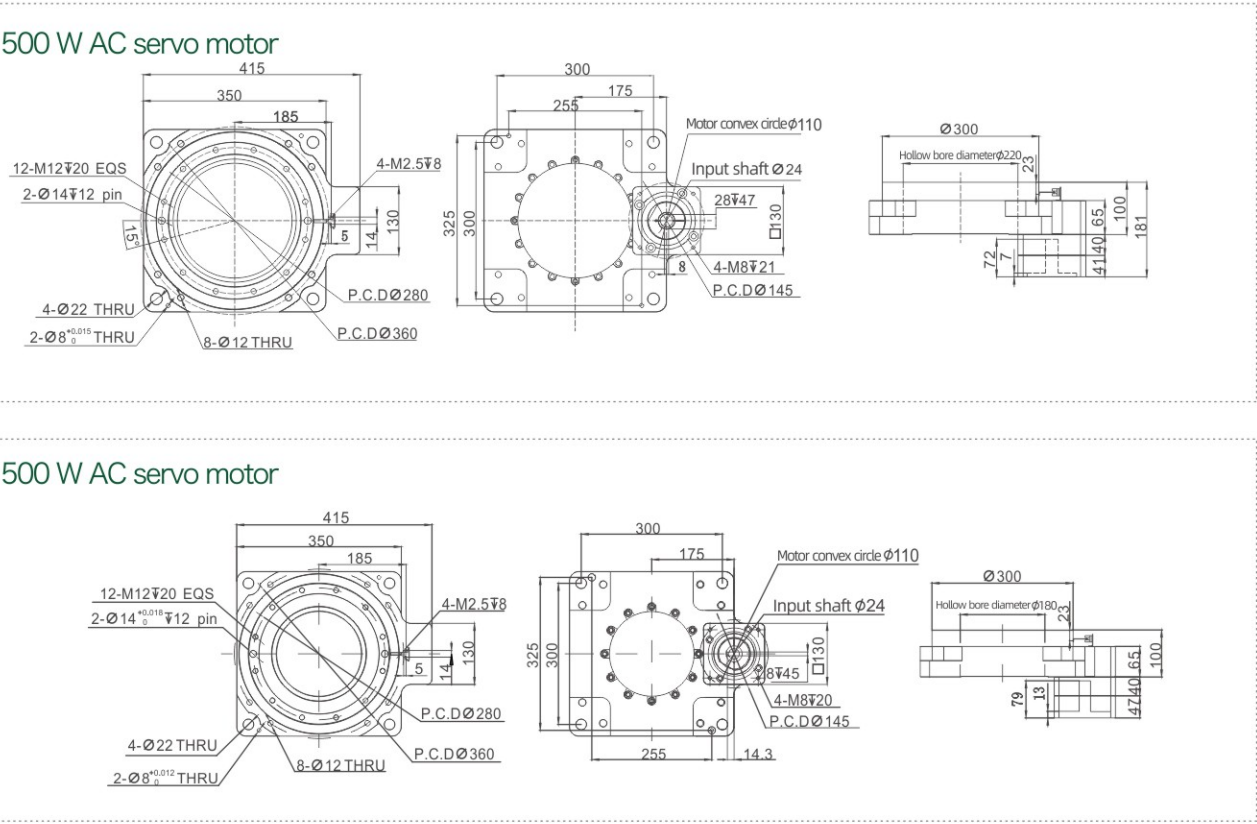


Adaptive Motor	1500 W AC Servo Motor		110 Stepper Motor Servo Motor	
Rotary platform bearing	Crossed roller bearing		Crossed roller bearing	
Reduction ratio	1:10	1:18	1:10	1:18
Allowable torque	126Nm	100Nm	126Nm	100Nm
Allowable disk speed	≤200r/min Intermittent operation		≤200r/min Intermittent operation	
Allow inertial load	350Nm	300Nm	350Nm	300Nm
Allowable axial load	7500N	7500N	7500N	7500N
Positioning accuracy	≤1arcmin	≤1arcmin	≤1arcmin	≤1arcmin
Repeated positioning accuracy	≤20arcsec	≤20arcsec	≤20arcsec	≤20arcsec
Rotating platform parallelism	≤0.01mm	≤0.01mm	≤0.01mm	≤0.01mm
Rotating platform concentricity	≤0.01mm	≤0.01mm	≤0.01mm	≤0.01mm
Precision life	20000h Intermittent operation		20000h Intermittent operation	
Protection class	IP40	IP40	IP40	IP40
weight	19Kg	19Kg	19Kg	19Kg

The above technical parameters are for reference only. Actually, according to the data provided by the customer, relevant technical parameters and dimensions will be issued.

TMN350 Series

Outline Dimension Table



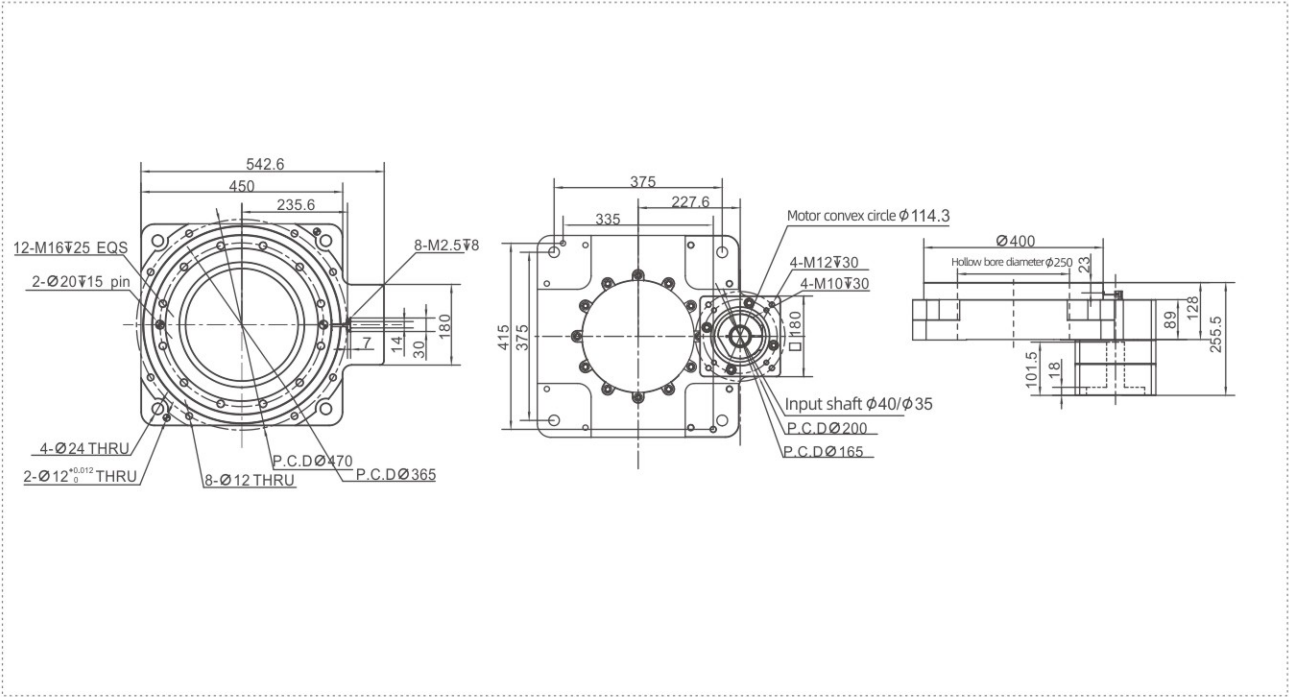
Adaptive Motor	1500 W AC Servo Motor	
Rotary platform bearing	Crossed roller bearing	
Reduction ratio	1:10	
Allowable torque	356Nm	
Allowable disk speed	≤200r/min Intermittent operation	
Allow inertial load	450Nm	
Allowable axial load	10000N	
Positioning accuracy	≤1.5arcmin	
Repeated positioning accuracy	≤20arcsec	
Rotating platform parallelism	≤0.02mm	
Rotating platform concentricity	≤0.02mm	
Precision life	20000h Intermittent operation	
Protection class	IP40	
weight	41Kg	

The above technical parameters are for reference only. Actually, according to the data provided by the customer, relevant technical parameters and dimensions will be issued.

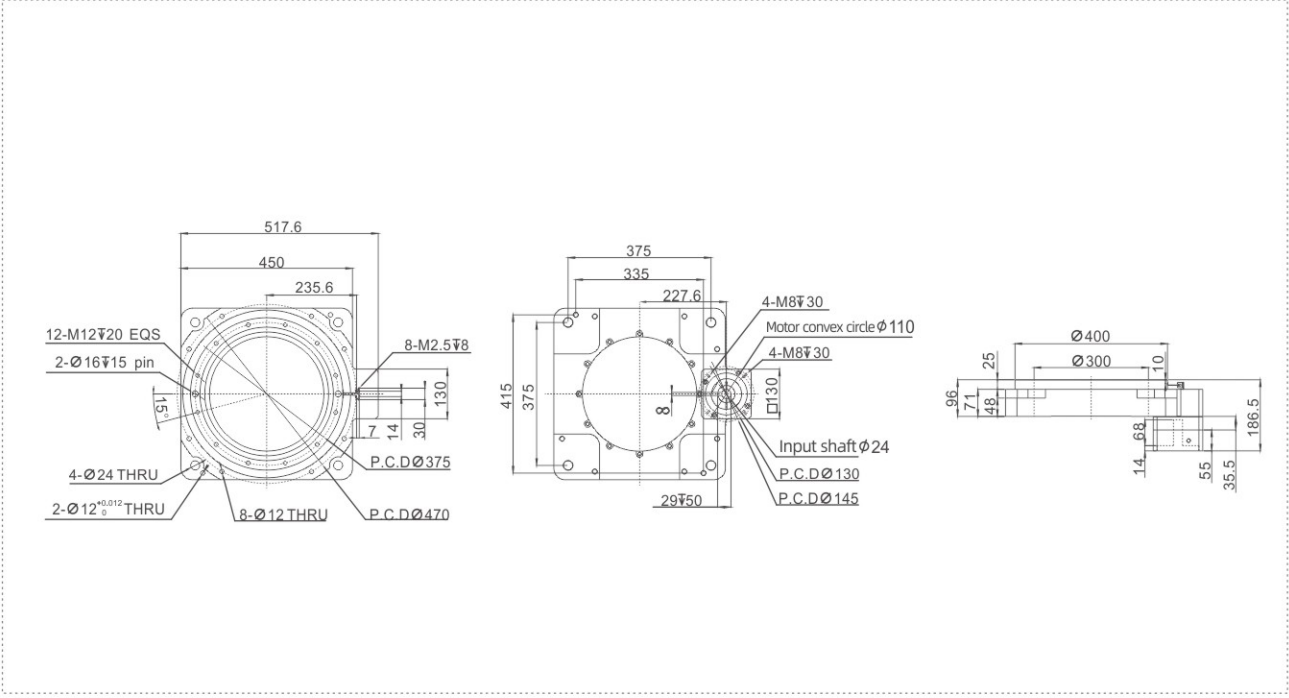
TMN450/450B Series

Outline Dimension Table

1500 WAC servo motor



Model 110 stepper motor



Adaptive Motor	3KW AC Servo Motor
Rotary platform bearing	Crossed roller bearing
Reduction ratio	1:10
Allowable torque	456Nm
Allowable disk speed	≤200r/min Intermittent operation
Allow inertial load	600Nm
Allowable axial load	15000N
Positioning accuracy	≤2arcmin
Repeated positioning accuracy	≤20arcsec
Rotating platform parallelism	≤0.02mm
Rotating platform concentricity	≤0.02mm
Precision life	20000h Intermittent operation
Protection class	IP40
weight	80Kg

Adaptive Motor	1.5KW AC Servo Motor
Rotary platform bearing	Crossed roller bearing
Reduction ratio	1:10
Allowable torque	380Nm
Allowable disk speed	≤200r/min Intermittent operation
Allow inertial load	490Nm
Allowable axial load	15000N
Positioning accuracy	≤2arcmin
Repeated positioning accuracy	≤20arcsec
Rotating platform parallelism	≤0.02mm
Rotating platform concentricity	≤0.02mm
Precision life	20000h Intermittent operation
Protection class	IP40
weight	47Kg

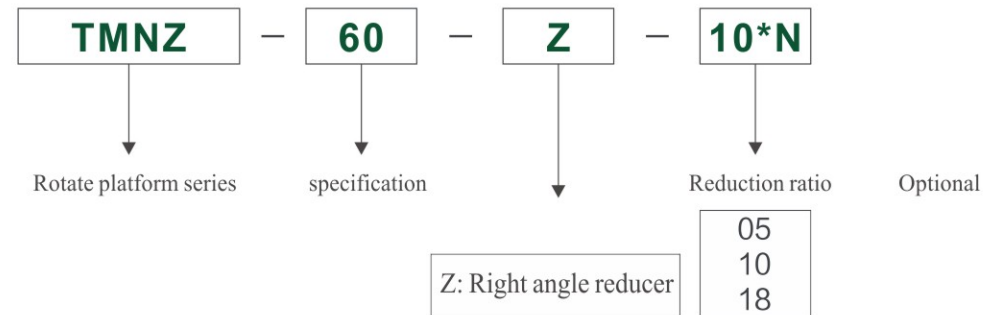
The above technical parameters are for reference only. Actually, according to the data provided by the customer, relevant technical parameters and dimensions will be issued.

TMNZ - Hollow Rotary Actuators

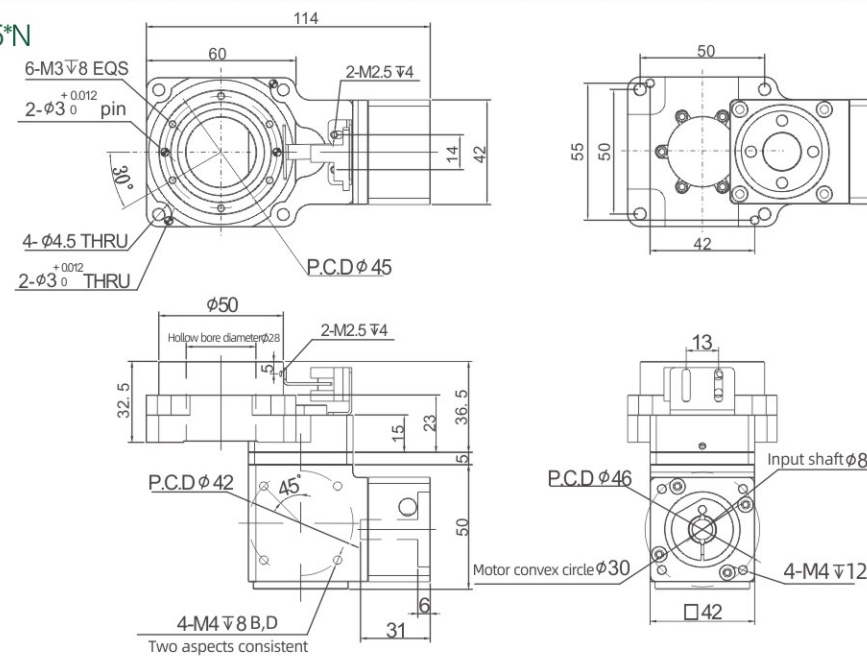


TMNZ60 Series

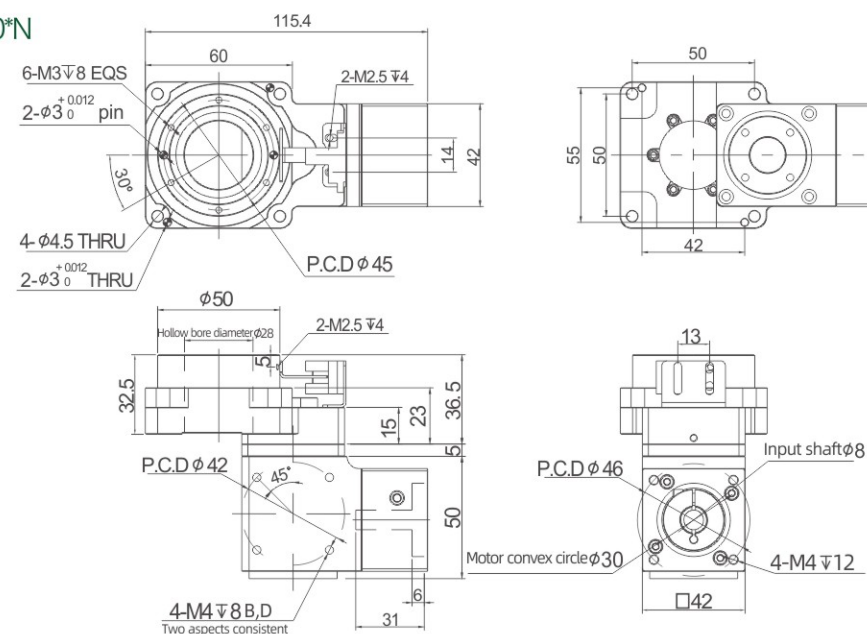
Outline Dimension Table



TMNZ60-0.5*N



TMNZ60-10*N



N: Reducer Gear Ratio 1:2, 1:3, or 1:5 Please provide motor flange size when ordering

Adaptive Motor

50/100W AC
Servo Motor

Rotary platform bearing	Crossed roller bearing	Crossed roller bearing
Reduction ratio	1:5	1:10
Allowable torque	5Nm	4Nm
Allowable disk speed	≤200r/min Intermittent operation	≤200r/min Intermittent operation
Allow inertial load	8Nm	6Nm
Allowable axial load	280N	280N
Positioning accuracy	≤1arcmin	≤1arcmin
Repeated positioning accuracy	≤15arcsec	≤15arcsec
Rotating platform parallelism	≤0.01mm	≤0.01mm
Rotating platform concentricity	≤0.01mm	≤0.01mm
Precision life	20000h Intermittent operation	20000h Intermittent operation
Protection class	IP40	IP40
weight	0.6Kg	0.6Kg

Project

i² Direct-drive right angle reducer DR042

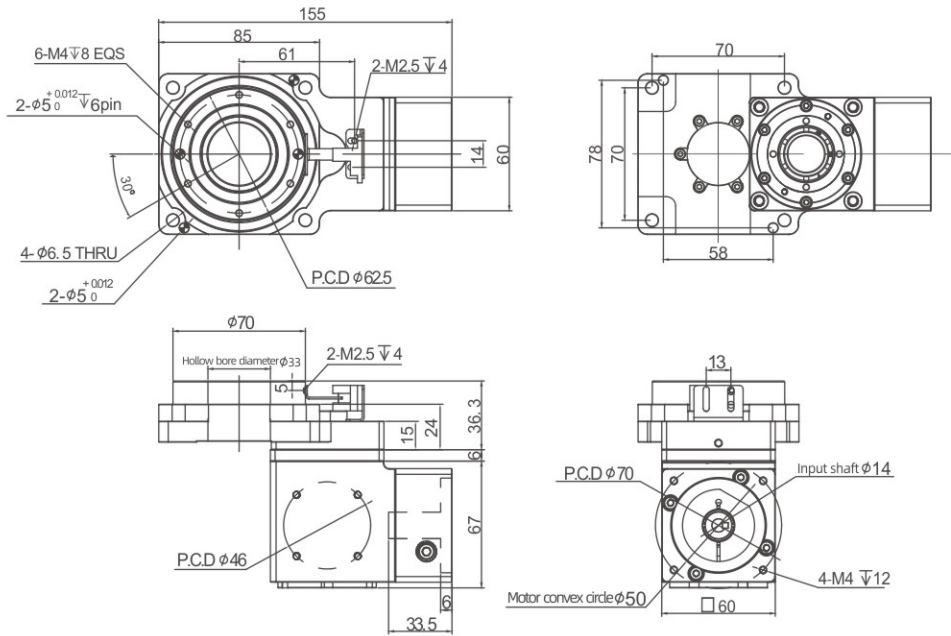
Rated output torque	Nm	2	12
		3	7
		5	2.5
Scram torque	Nm		2倍于T _{2N} /2 2 times T2N/2
Rated input speed	rpm		1500
Maximum input speed	rpm		2500
Return clearance	arcmin		≤5
Resistance to torsion steel	Nm/arcmin		1.2
Allowable radial force	N		300
Allowable axial force	N		150
Service life	Hr		20000 (Continuous operation reduces service life by 50%)
efficiency	%		96%
Operating temperature	°C		-10°C~+90°C
Class of protection			IP65
oiling			Synthetic lubricating oil
noise	dB (A)		≤62

The above technical parameters are for reference only. Actually, according to the data provided by the customer, relevant technical parameters and dimensions will be issued.

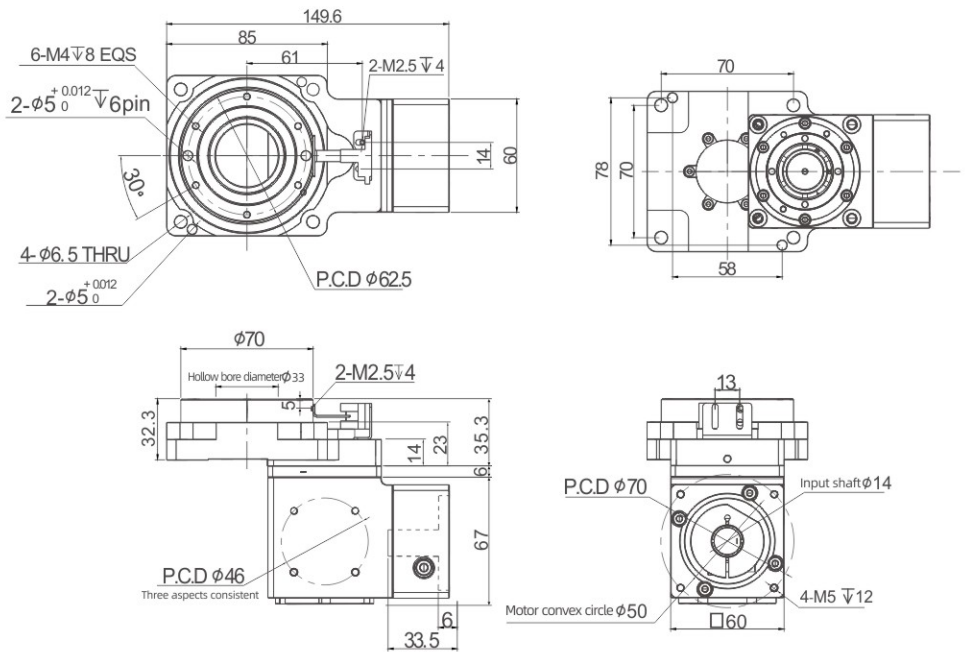
TMNZ85 Series

Outline Dimension Table

TMNZ85-0.5*N



TMNZ85-10*N



N: Reducer Gear Ratio 1:2, 1:3, or 1:5
Please provide motor flange size when ordering

Adaptive Motor

200/400W AC
Servo Motor

Rotary platform bearing	Crossed roller bearing	Crossed roller bearing
Reduction ratio	1:5	1:10
Allowable torque	30Nm	20Nm
Allowable disk speed	≤ 200 r/min Intermittent operation	≤ 200 r/min Intermittent operation
Allow inertial load	60Nm	32Nm
Allowable axial load	500N	500N
Positioning accuracy	≤ 1 arcmin	≤ 1 arcmin
Repeated positioning accuracy	≤ 15 arcsec	≤ 15 arcsec
Rotating platform parallelism	≤ 0.01 mm	≤ 0.01 mm
Rotating platform concentricity	≤ 0.01 mm	≤ 0.01 mm
Precision life	20000h Intermittent operation	20000h Intermittent operation
Protection class	IP40	IP40
weight	1.2Kg	1.2Kg

Project

i²

Direct-drive right angle reducer DR060

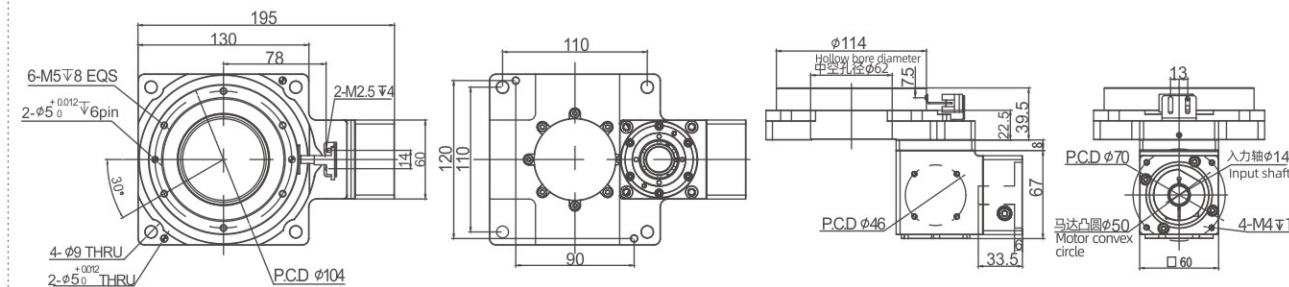
Rated output torque	Nm	2	32
		3	24
		5	8
Scram torque	Nm	2倍于T _{2N} /2 2 times T _{2N} /2	
Rated input speed	rpm	1000	
Maximum input speed	rpm	2500	
Return clearance	arcmin	≤ 5	
Resistance to torsion steel	Nm/arcmin	1.5	
Allowable radial force	N	500	
Allowable axial force	N	200	
Service life	Hr	20000 (Continuous operation reduces service life by 50%)	
efficiency	%	96%	
Operating temperature	°C	-10°C~+90°C	
Class of protection		IP65	
oiling		Synthetic lubricating oil	
noise	dB (A)	≤ 65	

The above technical parameters are for reference only. Actually, according to the data provided by the customer, relevant technical parameters and dimensions will be issued.

TMNZ130 Series

Outline Dimension Table

TMNZ130-10*N



Adaptive Motor	200/400W AC Servo Motor
Rotary platform bearing	Crossed roller bearing
Reduction ratio	1:10
Allowable torque	52Nm
Allowable disk speed	≤200r/min Intermittent operation
Allow inertial load	72Nm
Allowable axial load	2000N
Positioning accuracy	≤1arcmin
Repeated positioning accuracy	≤15arcsec
Rotating platform parallelism	≤0.01mm
Rotating platform concentricity	≤0.01mm
Precision life	20000h Intermittent operation
Protection class	IP40
weight	2.5Kg

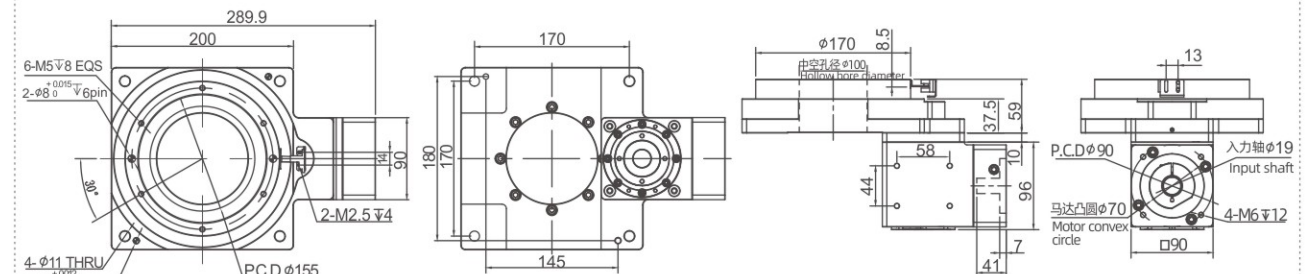
Project		i²	Direct-drive right angle reducer DR060
Rated output torque	Nm	2	32
		3	24
		5	8
Scram torque	Nm		2倍于T _{2N} /2 2 times T2N/2
Rated input speed	rpm		1000
Maximum input speed	rpm		2500
Return clearance	arcmin		≤5
Resistance to torsion steel	Nm/arcmin		1.5
Allowable radial force	N		500
Allowable axial force	N		200
Service life	Hr		20000 (Continuous operation reduces service life by 50%)
efficiency	%		96%
Operating temperature	°C		-10°C→+90°C
Class of protection			IP65
oiling			Synthetic lubricating oil
noise	dB (A)		≤65

* All specifications, dimensions and design characteristics shown in this catalogue are subject to change without notice.

TMNZ200 Series

Outline Dimension Table

TMNZ200-10*N



Adaptive Motor		750W AC Servo Motor
Rotary platform bearing	Crossed roller bearing	
Reduction ratio	1:10	
Allowable torque	90Nm	
Allowable disk speed	≤200r/min Intermittent operation	
Allow inertial load	135Nm	
Allowable axial load	4000N	
Positioning accuracy	≤1arcmin	
Repeated positioning accuracy	≤15arcsec	
Rotating platform parallelism	≤0.01mm	
Rotating platform concentricity	≤0.01mm	
Precision life	20000h Intermittent operation	
Protection class	IP40	
weight	8Kg	

Project		i ²	Direct-drive right angle reducer DR090
Rated output torque	Nm	2	60
		3	48
		5	16
Scram torque	Nm		2倍于T _{2N} /2 2 times T2N/2
Rated input speed	rpm		1000
Maximum input speed	rpm		2500
Return clearance	arcmin		≤5
Resistance to torsion steel	Nm/arcmin		5
Allowable radial force	N		1200
Allowable axial force	N		500
Service life	Hr		20000 (Continuous operation reduces service life by 50%)
efficiency	%		96%
Operating temperature	°C		-10°C~+90°C
Class of protection			IP65
oiling			Synthetic lubricating oil
noise	dB (A)		≤65

* All specifications, dimensions and design characteristics shown in this catalogue are subject to change without notice.

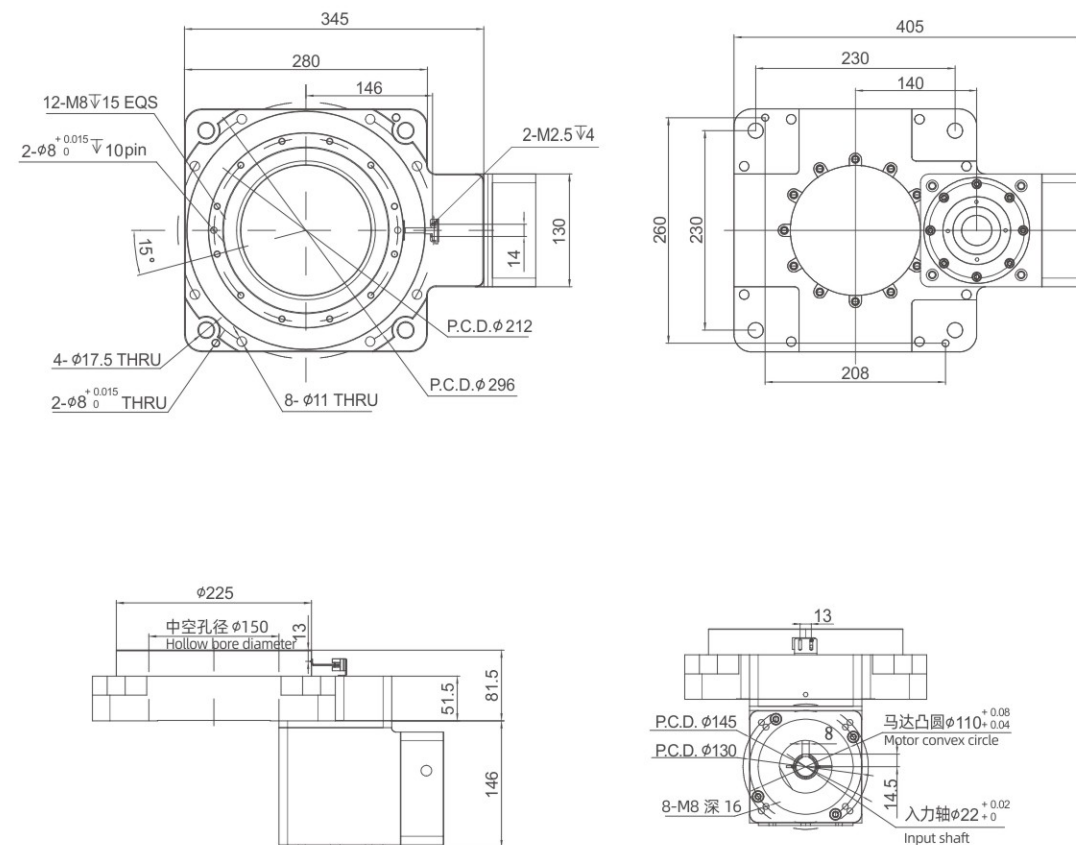
TMNZ - Hollow Rotary Actuators



TMNZ280 Series

Outline Dimension Table

TMNZ280-10*N



Adaptive Motor

200/400W AC Servo Motor

Rotary platform bearing	Crossed roller bearing	Crossed roller bearing
Reduction ratio	1:5	1:10
Allowable torque	30Nm	20Nm
Allowable disk speed	≤200r/min Intermittent operation	≤200r/min Intermittent operation
Allow inertial load	60Nm	32Nm
Allowable axial load	500N	500N
Positioning accuracy	≤1arcmin	≤1arcmin
Repeated positioning accuracy	≤15arcsec	≤15arcsec
Rotating platform parallelism	≤0.01mm	≤0.01mm
Rotating platform concentricity	≤0.01mm	≤0.01mm
Precision life	20000h Intermittent operation	20000h Intermittent operation
Protection class	IP40	IP40
weight	1.2Kg	1.2Kg

Project

i² Direct-drive right angle reducer DR060

Rated output torque	Nm	2	32
		3	24
		5	8
Scram torque	Nm		2倍于T _{2N} /2 2 times T2N/2
Rated input speed	rpm		1000
Maximum input speed	rpm		2500
Return clearance	arcmin		≤5
Resistance to torsion steel	Nm/arcmin		1.5
Allowable radial force	N		500
Allowable axial force	N		200
Service life	Hr		20000 (Continuous operation reduces service life by 50%)
efficiency	%		96%
Operating temperature	°C		-10°C~+90°C
Class of protection			IP65
oiling			Synthetic lubricating oil
noise	dB (A)		≤65

The above technical parameters are for reference only. Actually, according to the data provided by the customer, relevant technical parameters and dimensions will be issued.