Hollow Rotary Tables/GSN Series

Multiple Combinations Available
For High Precision Repeat Positioning Application

Standard Model

Equip Open Loop Stepper Motor

Equip Closed Loop Stepper Motor

Large Aperture Hollow Structure
Easy to wiring and piping

Direct Connection
Rotary table can be directly installed with working table robot arms

Long Life-span
The accuracy life can be reach 20000 hrs

Multiple Installations
Adopting cross roller bearing, it can be installed in horizontal, suspension and side

More Options for Motor Equip
Stepper and servo motor could be equipped

Planetary

Right Angle

GSN60

Series	Size	Type		Ratio		Motor
GSN	60		-	05K	-	SV1

Size	Type	Motor
60	Z: Right Angle	SV1: Servo Ø8 PCD45,M3
85	M: Planetary	SV2: Servo Ø8 PCD46,M4
130	None: Standard	Suit for 100W AC Servo Motor
200		ST1: Stepper Ø5 PCD43.8,M3
280		ST2: Stepper Ø6 PCD43.8,M3
450		Suit for 42 Stepper Motor
		OS: Dedicated Open Loop Stepper Motor
		CS: Dedicated Closed Loop Stepper Motor

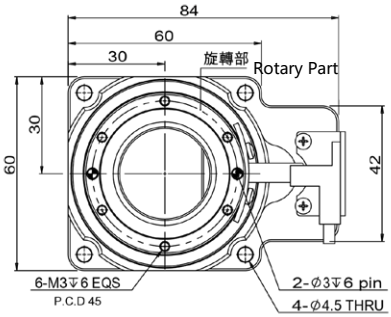
Technical Parameters

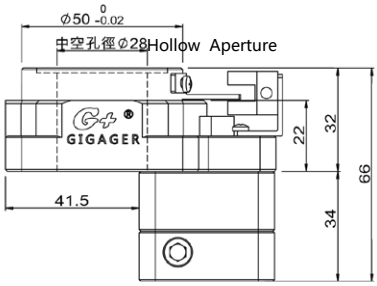
Parameters		Model				
		GSN60			GSN60Z	GSN60M
Bearing of Rotary Table		Cross Roller Bearing				
Gear Ratio	i	5	10	18	15	20
Allowable Torque	N.m	5.2	4.0	1.2	5.2	
Allowable Table Speed	rpm	200		40	200	
Repeatability	arc-sec	≤ 10				≤ 15
Allowable Moment of Inertia	N.m	5				
Positioning Accuracy	arc-min	≤ 1				
Allowable Axial Load	N	250				
Table Flatness	mm	≤ 0.01				
Table Concentricity	mm	≤ 0.01				
Ingress Protection	IP	40				
Weight	kg	0.6			1	1.1

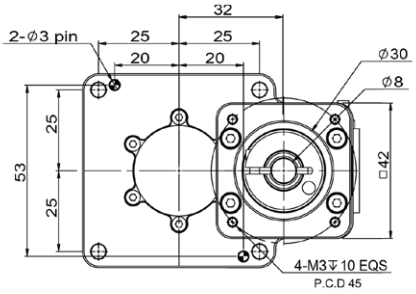
Motor/Drive Parameters

Motor/Driver Parameters		Model	
		GSN60-18K-OS	GSN60-18K-CS
Frame Size	mm	28	
Rated Current	A/phase	1	
Coil Impedance	Ω/phase	3.0	
Coil Inductive	mh	2.2	
Holding Torque	N.m	0.14	
Moment of Inertia	$g.cm^2$	18	
Encoder Resolution	P/R	-	2500
Ingress Protection	IP	20	
Step Angle	°	1.8	
Drive Configuration		-	Dedicated Drive
Drive Input Voltage		-	DC24V
Drive Command Input Form		-	Pulse + Direction DC5V

■ GSN60-05K







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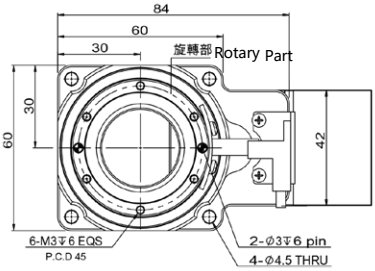

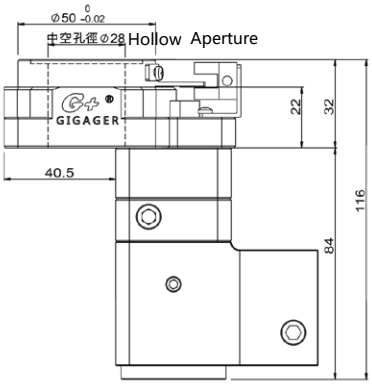

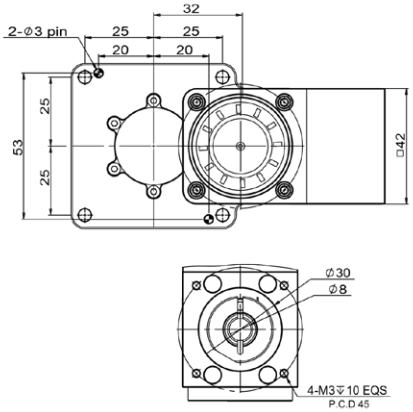

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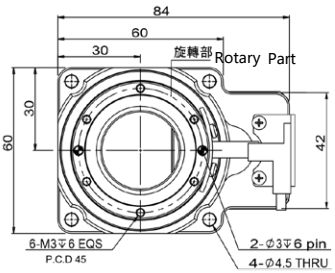

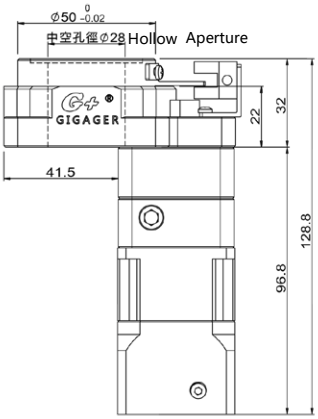

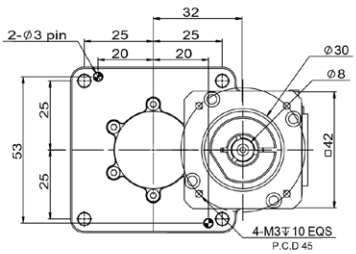

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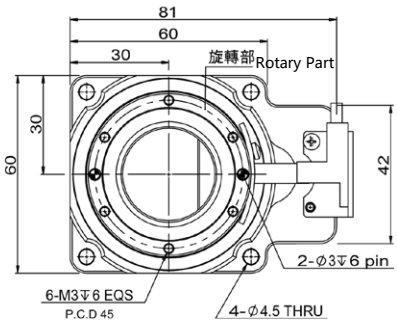

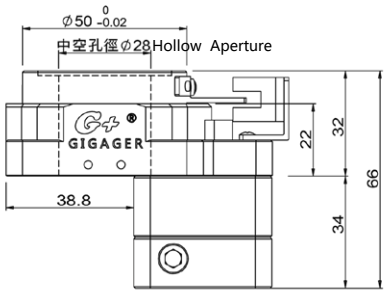

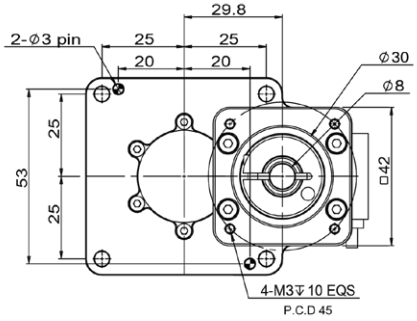

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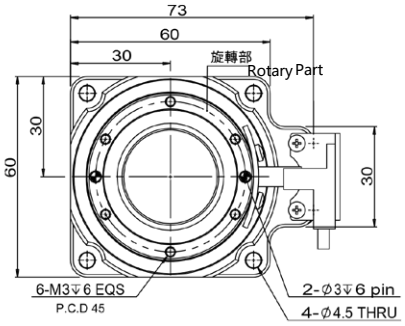

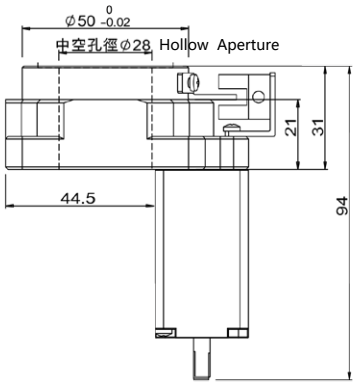

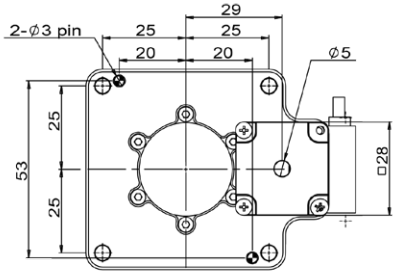

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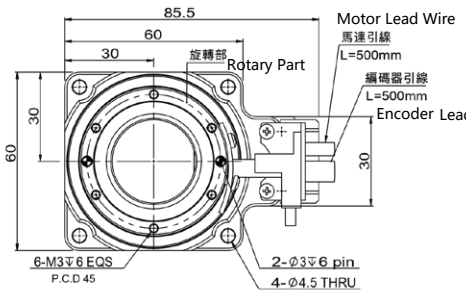
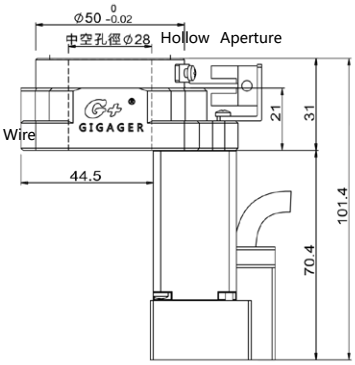
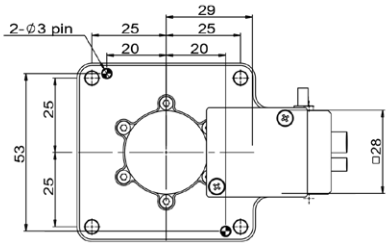






GSN85

Seires	Size	Type		Ratio		Motor
GSN	85		-	05K	-	SV1

Size: 60 / 85 / 130 / 200 / 280 / 450

Type: Z: Right Angle; M: Planetary; None: Standard

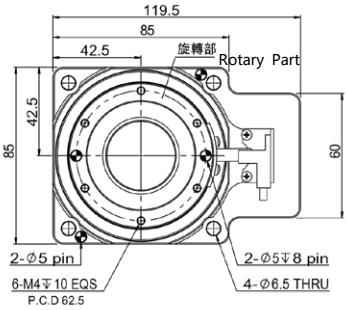
Motor:
SV1: Servo Ø14 PCD70,M4
SV2: Servo Ø14 PCD70,M5
SV3: Servo Ø11 PCD70,M4
Suit for 200~400W AC Servo Motor

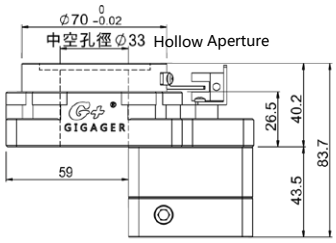
ST1: Stepper Ø6.35 PCD66.67,M4
ST2: Stepper Ø6.35 PCD70.7,M4
ST3: Stepper Ø8 PCD70.7,M4
ST4: Stepper Ø8 PCD66.67,M4
Suit for 57/60 Stepper Motor

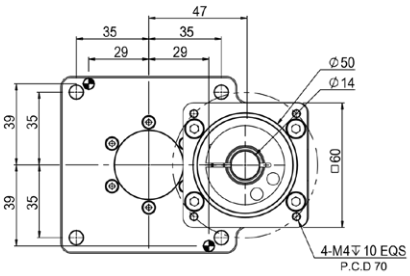
Technical Parameters

Parameters		Model										
		GSN85		GSN85Z			GSN85M					
Bearing of Rotary Table		Cross Roller Bearing										
Gear Ratio	i	5	10	10	15	20	30	15	20	25	35	50
Allowable Torque	N.m	20	16	20	20	16	16	20	20	20	20	20
Allowable Table Speed	rpm	200										
Repeatability	arc-sec	≤ 10						≤ 15				
Allowable Moment of Inertia	N.m	10										
Positioning Accuracy	arc-min	≤ 1										
Allowable Axial Load	N	500										
Table Flatness	mm	≤ 0.01										
Table Concentricity	mm	≤ 0.01										
Ingress Protection	IP	40										
Weight	kg	1.4		2.6								

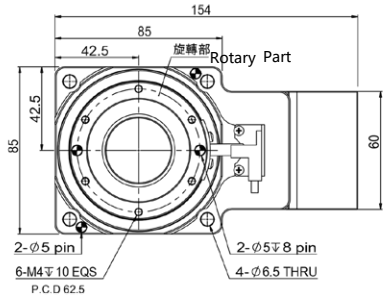
■ GSN85-05K

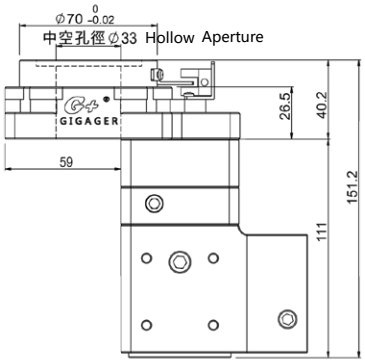


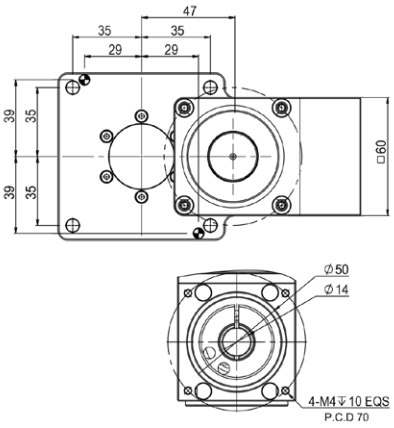




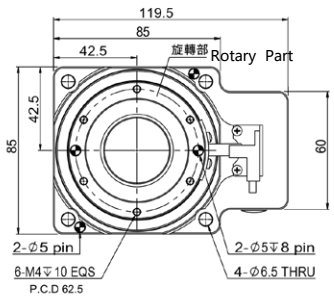
■ GSN85Z-10K/15K

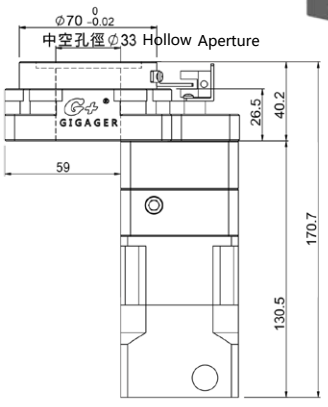


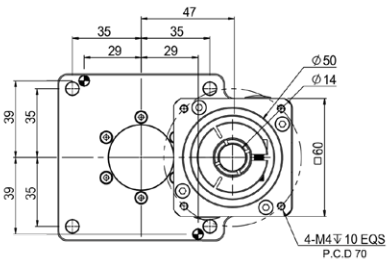




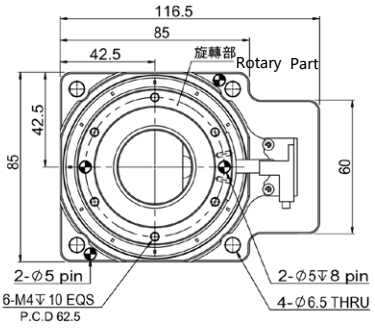
■ GSN85M-15K/20K/25K/35K/50K

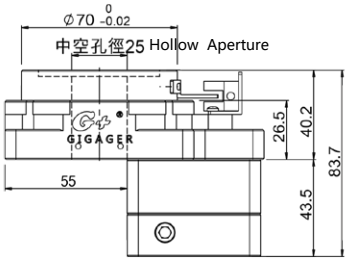


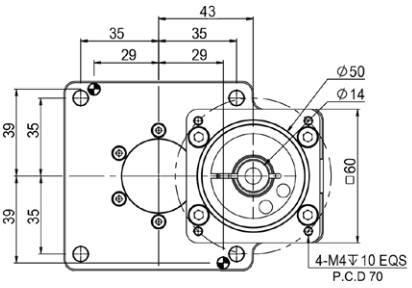




■ GSN85-10K







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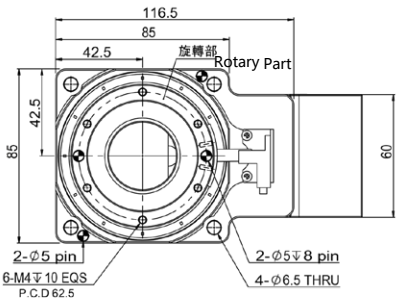
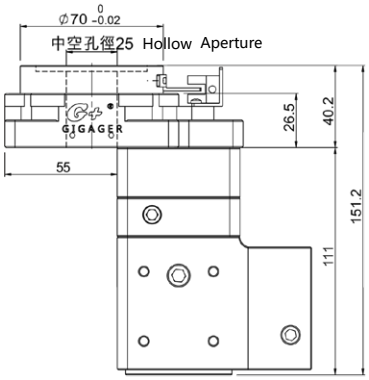
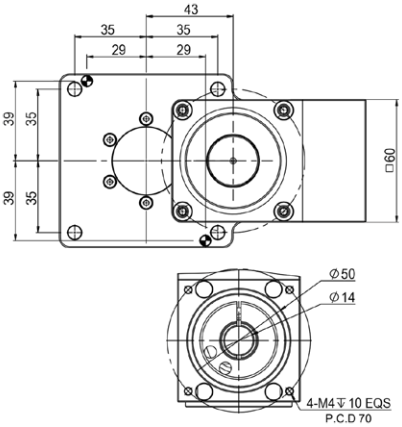






GSN85

Series	Size		Ratio		Motor
GSN	85	-	18K	-	SV1

Size: 60 / 85 / 130 / 200 / 280 / 450

Motor:
- SV1: Servo Ø8 PCD45,M3 / SV2: Servo Ø8 PCD46,M4 / Suit for AC 100W Servo Motor
- ST1: Stepper Ø5 PCD43.8,M3 / ST2: Stepper Ø6 PCD43.8,M3 / Suit for 42 Stepper Motor
- OS: Dedicated Open Loop Stepper Motor / CS: Dedicated Closed Loop Stepper Motor

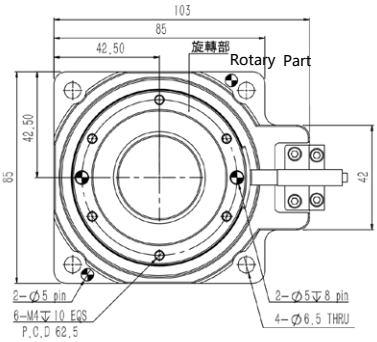
Technical Parameters

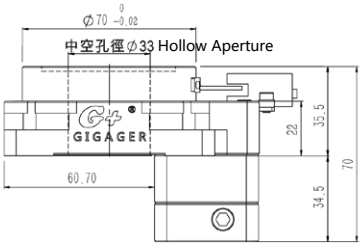
Parameters		Model		
		GSN85-18K	GSN85-18K-OS	GSN85-18K-CS
Bearing of Rotary Table		Cross Roller Bearing		
Gear Ratio	i	18		
Allowable Torque	N.m	3.2		
Allowable Table Speed	rpm	150	50	150
Repeatability	arc-sec	≤ 10		
Allowable Moment of Inertia	N.m	10		
Positioning Accuracy	arc-min	≤ 1		
Allowable Axial Load	N	500		
Table Flatness	mm	≤ 0.01		
Table Concentricity	mm	≤ 0.01		
Ingress Protection	IP	40		
Weight	kg	1	1.2	1.3

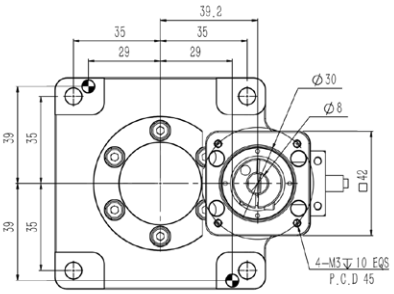
Motor/Drive Parameters

Motor/Driver Parameters		Model	
		GSN85-18K-OS	GSN85-18K-CS
Frame Size	mm	42	
Rated Voltage	V/phase	3.25	
Rated Current	A/phase	1.3	
Coil Impedance	Ω/phase	2.5	
Coil Inductive	mh	6.0	
Holding Torque	N.m	0.6	
Moment of Inertia	$g.cm^2$	82	
Encoder Resolution	P/R	-	2500
Ingress Protection	IP	20	
Step Angle	°	1.8	
Drive Configuration		-	Dedicated Drive
Drive Input Voltage		-	DC24V
Drive Command Input Form		-	Pulse + Direction DC5V

■ GSN85-18K







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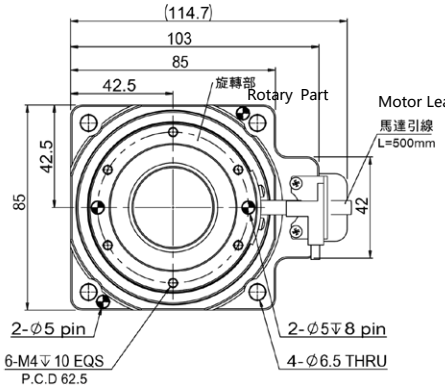

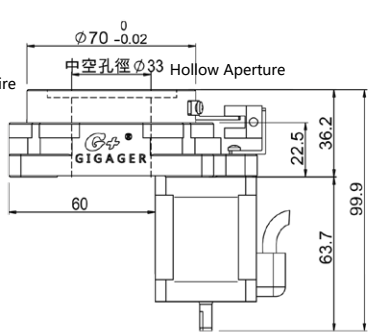

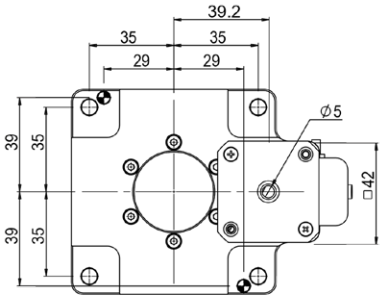

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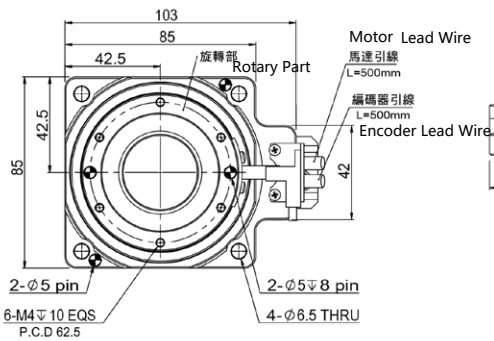
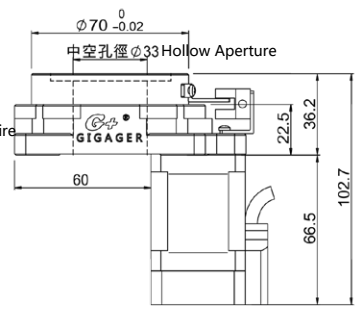
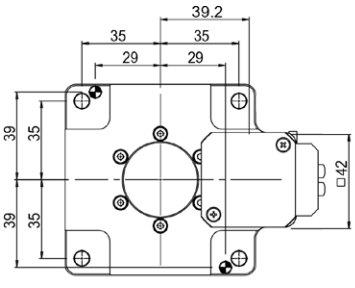






GSN130

Series	Size	Type		Ratio		Motor
GSN	130		-	10K	-	SV1

Size	Type	Motor
60 85 130 200 280 450	Z: Right Angle M: Planetary None: Standard	SV1: Servo Ø14 PCD70,M4 SV2: Servo Ø14 PCD70,M5 SV3: Servo Ø11 PCD70,M4 Suit for 200~400W AC Servo Motor ST1: Stepper Ø6.35 PCD66.67,M4 ST2: Stepper Ø6.35 PCD70.7,M4 ST3: Stepper Ø8 PCD70.7,M4 ST4: Stepper Ø8 PCD66.67,M4 Suit for 57/60 Stepper Motor OS: Dedicated Open Loop Stepper Motor CS: Dedicated Closed Loop Stepper Motor

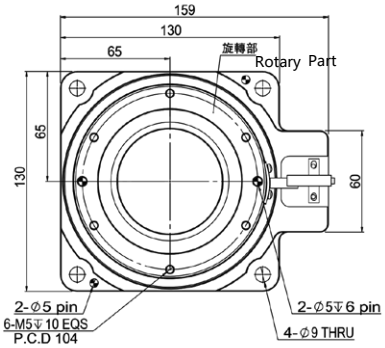
■ Technical Parameters

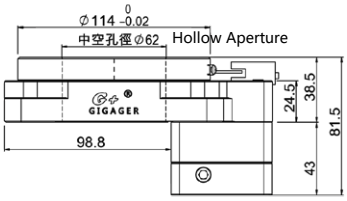
Parameters		Model						
		GSN130		GSN130Z		GSN130M		
Bearing of Rotary Table		Cross Roller Bearing						
Gear Ratio	i	10	18	20	30	30	40	50
Allowable Torque	N.m	40	28	40				
Allowable Table Speed	rpm	200	150 OS: 50/CS: 120	200				
Repeatability	arc-sec	≤ 10				≤ 15		
Allowable Moment of Inertia	N.m	50						
Positioning Accuracy	arc-min	≤ 1						
Allowable Axial Load	N	2000						
Table Flatness	mm	≤ 0.01						
Table Concentricity	mm	≤ 0.01						
Ingress Protection	IP	40						
Weight	kg	2.5 OS: 3.1/CS: 3.3		3.8				

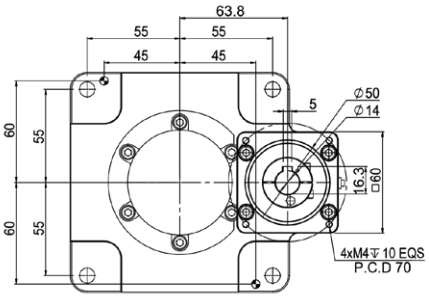
■ Motor/Drive Parameters

Motor/Driver Parameters		Model	
		GSN130-18K-OS	GSN130-18K-CS
Frame Size	mm	57	
Rated Current	A/phase	4.2	
Coil Impedance	Ω/phase	1.2	
Coil Inductive	mh	4.2	
Holding Torque	N.m	2.2	
Moment of Inertia	$g.cm^2$	460	
Encoder Resolution	P/R	-	2500
Ingress Protection	IP	20	
Step Angle	°	1.8	
Drive Configuration		-	Dedicated Drive
Drive Input Voltage		-	DC24V
Drive Command Input Form		-	Pulse + Direction DC5V

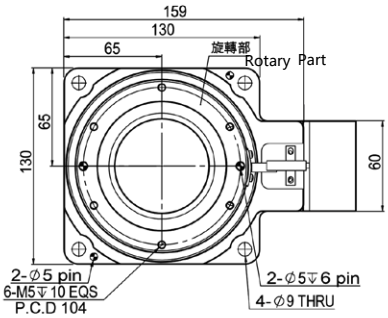
■ GSN130-10K/18K

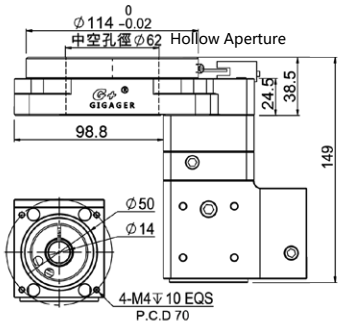


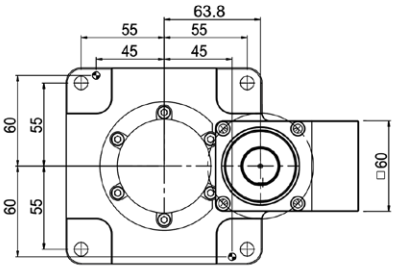




■ GSN130Z-20K/30K







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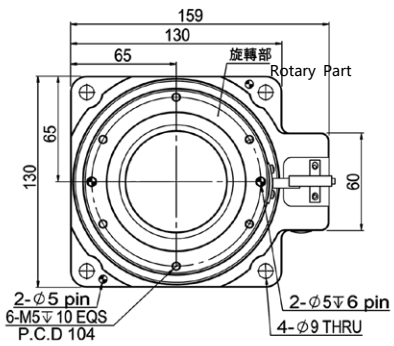
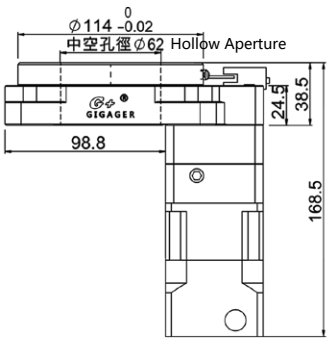
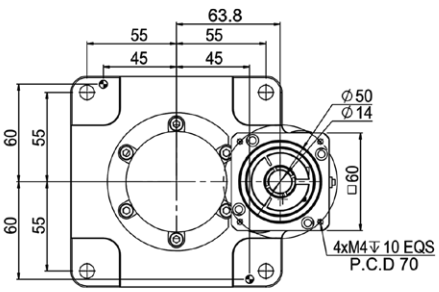
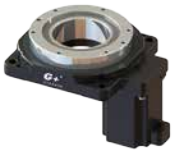
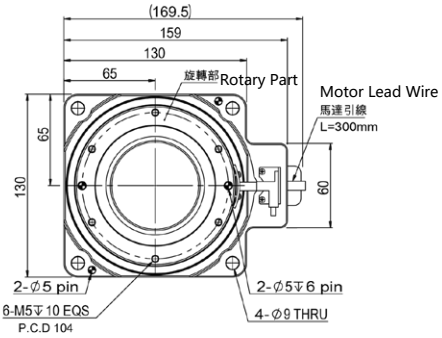


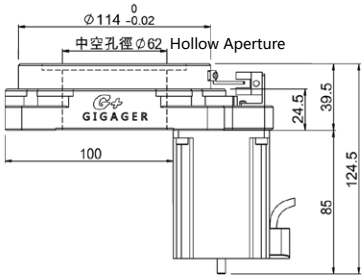


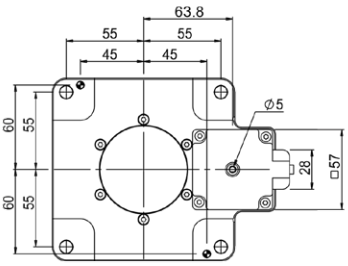


■ GSN130-18K-OS

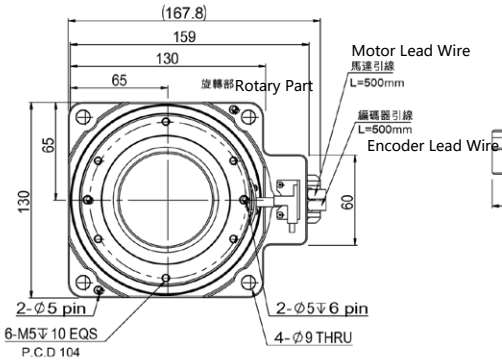


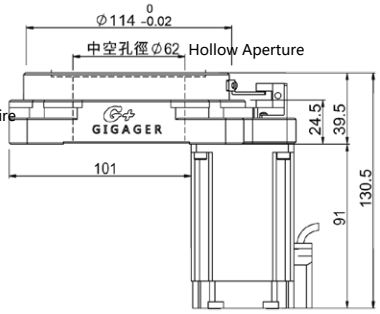


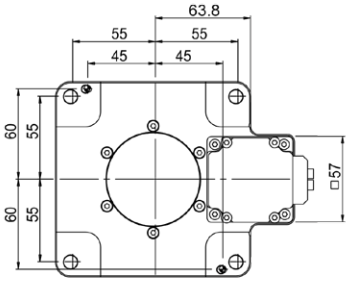




■ GSN130-18K-CS







GSN200

Series	Size	Type		Ratio		Motor
GSN	200		-	10K	-	SV1

Size	Type	Motor
60 85 130 200 280 450	Z: Right Angle M: Planetary None: Standard	SV1: Servo Ø19 PCD90,M5 SV2: Servo Ø19 PCD90,M6 Suit for 750W AC Servo Motor ST1: Stepper Ø14 PCD98.4,M5 ST2: Stepper Ø14 PCD98.4,M6 Suit for 86 Stepper Motor OS: Dedicated Open Loop Stepper Motor CS: Dedicated Closed Loop Stepper Motor

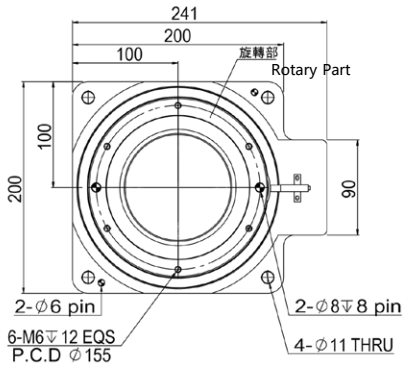
■ Technical Parameters

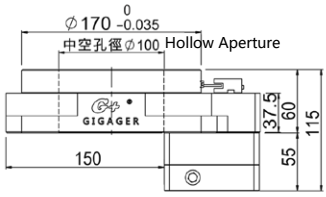
Parameters		Model						
		GSN200			GSN200Z		GSN200M	
Bearing of Rotary Table		Cross Roller Bearing						
Gear Ratio	i	10	18		20	30	30	40	50
Allowable Torque	N.m	90	65		90			
Allowable Table Speed	rpm	200	150 OS: 60/CS: 120		200			
Repeatability	arc-sec	≤ 10					≤ 15	
Allowable Moment of Inertia	N.m	100						
Positioning Accuracy	arc-min	≤ 1						
Allowable Axial Load	N	4000						
Table Flatness	mm	≤ 0.01						
Table Concentricity	mm	≤ 0.01						
Ingress Protection	IP	40						
Weight	kg	7.8 OS: 8.8/CS: 9.1			12		11.5	

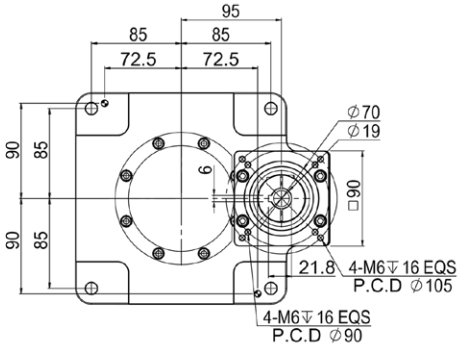
■ Motor/Drive Parameters

Motor/Driver Parameters		Model	
		GSN200-18K-OS	GSN200-18K-CS
Frame Size	mm	86	
Rated Current	A/phase	5.6	
Coil Impedance	Ω/phase	0.6	
Coil Inductive	mh	5.2	
Holding Torque	N.m	4.2	
Moment of Inertia	$g.cm^2$	2500	
Encoder Resolution	P/R	-	2500
Ingress Protection	IP	20	
Step Angle	°	1.8	
Drive Configuration		-	Dedicated Drive
Drive Input Voltage		-	DC48V
Drive Command Input Form		-	Pulse + Direction DC5V

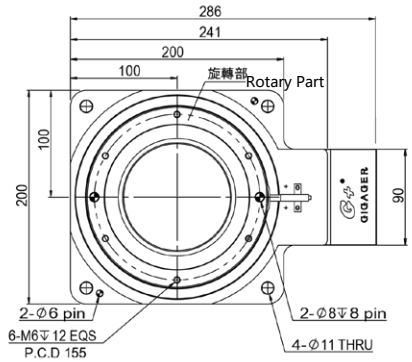
■ GSN200-10K/18K

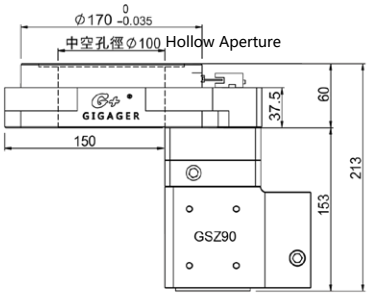


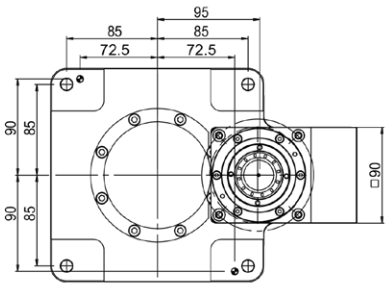




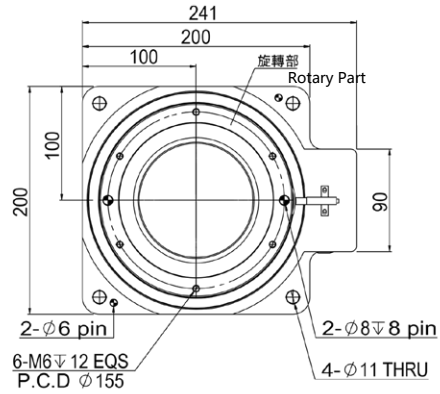
■ GSN200Z-20K/30K

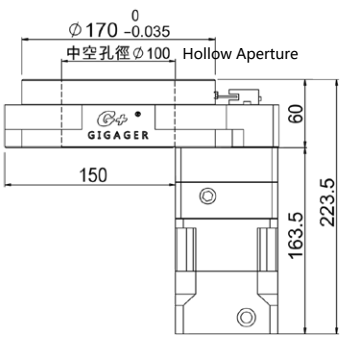


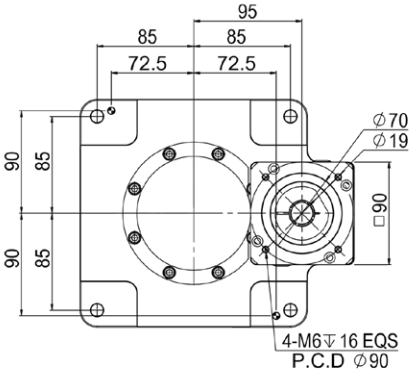




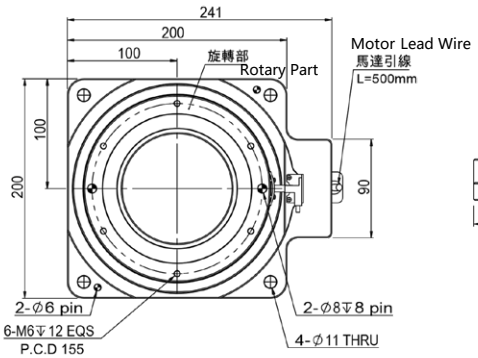
■ GSN200M-30K/40K/50K

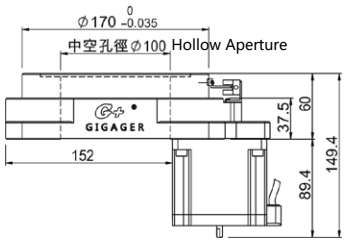


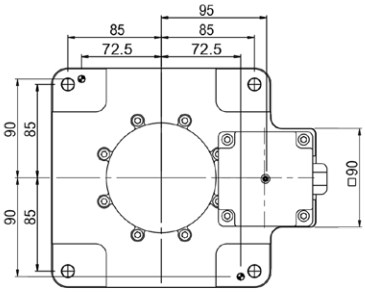




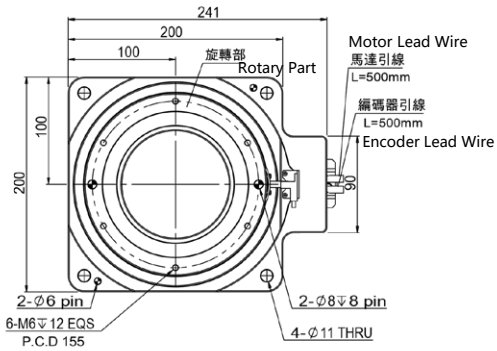
■ GSN200-18K-OS

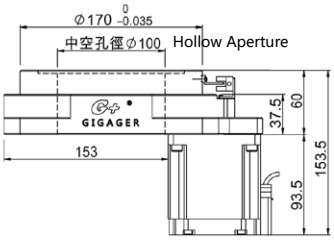


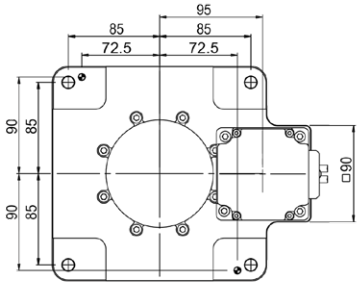




■ GSN200-18K-CS







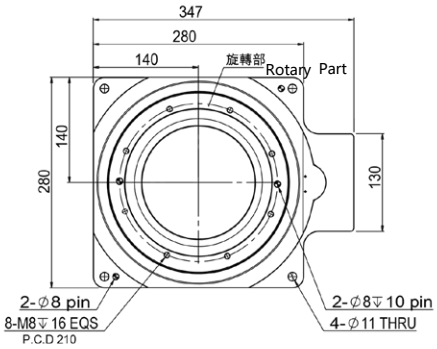
GSN280

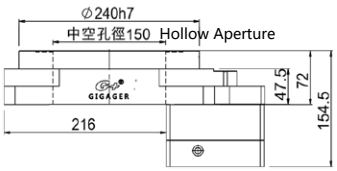
Series	Size	Type		Ratio		Motor
GSN	280		-	10K	-	SV1
	60 85 130 200 280 450	M: Planetary None: Standard				SV1: Servo Ø22 PCD145,M8 SV2: Servo Ø24 PCD145,M8 Suit for 1000W AC Servo Motor

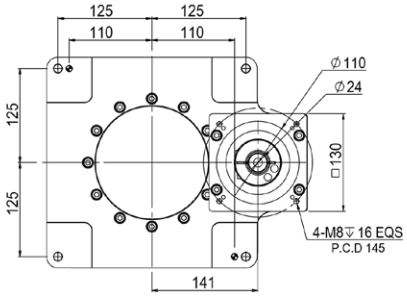
■ Technical Parameter

Parameters		Model			
		GSN280	GSN280M		
Bearing of Rotary Table		Cross Roller Bearing			
Gear Ratio	i	10	30	40	50
Allowable Torque	N.m	120			
Allowable Table Speed	rpm	200			
Repeatability	arc-sec	≤ 10			≤ 15
Allowable Moment of Inertia	N.m	200			
Positioning Accuracy	arc-min	≤ 1			
Allowable Axial Load	N	8000			
Table Flatness	mm	≤ 0.01			
Table Concentricity	mm	≤ 0.01			
Ingress Protection	IP	40			
Weight	kg	20	28		

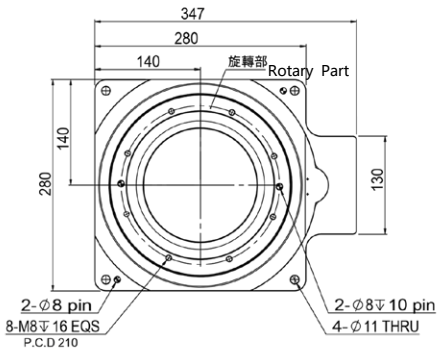
■ GSN280-10K

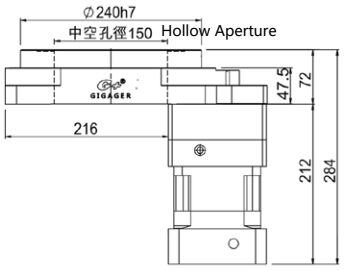


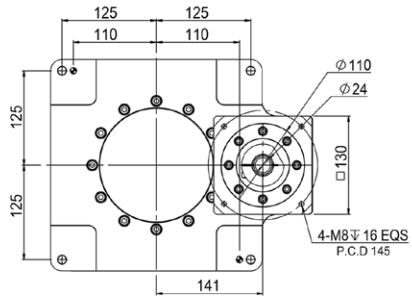




■ GSN280M-30K/40K/50K







GSN450

Series	Size	Type		Ratio		Input Terminal Installation Dimensions
GSN	450		-	10K	-	($\square^{a}$ - $\square^{b}$ - $\square^{c}$ - $\square^{d}$)

60
85
130
200
280
450

M: Planetary
None: Standard

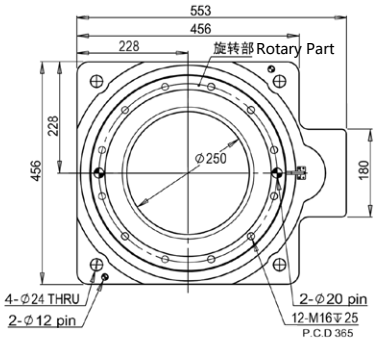
a. Motor output shaft diameter
b. Motor spigot diameter
c. Motor mounting hole PCD
d. Motor mounting threaded hole

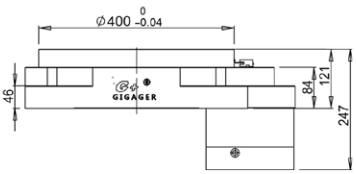
According to the motor mounting size
e.g. : (19-70-90-M5)

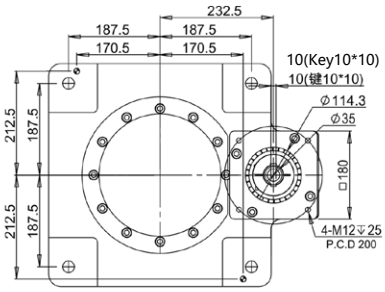
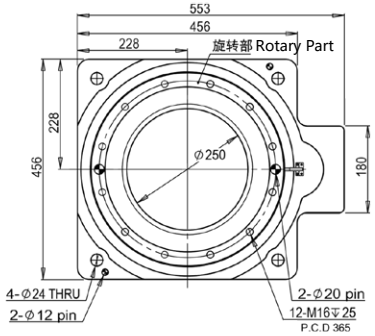
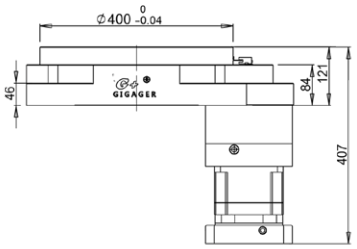
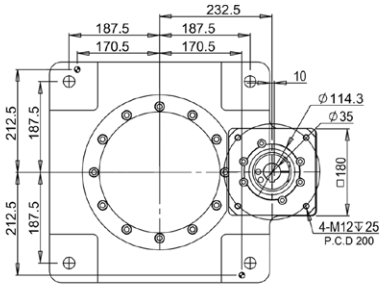
■ Technical Parameters

Parameters		Model					
		GSN450	GSN450M				
Bearing of Rotary Table		Cross Roller Bearing					
Gear Ratio	i	10	30	40	50	70	100
Allowable Torque	N.m	380					
Allowable Table Speed	rpm	150					
Repeatability	arc-sec	≤ 10					≤ 15
Allowable Moment of Inertia	N.m	750					
Positioning Accuracy	arc-min	≤ 1					
Allowable Axial Load	N	12000					
Table Flatness	mm	≤ 0.01					
Table Concentricity	mm	≤ 0.01					
Ingress Protection	IP	40					
Weight	kg	86.5	103.5				

■ GSN450-10K







■ GSN450M-30K/40K/50K/70K/100K