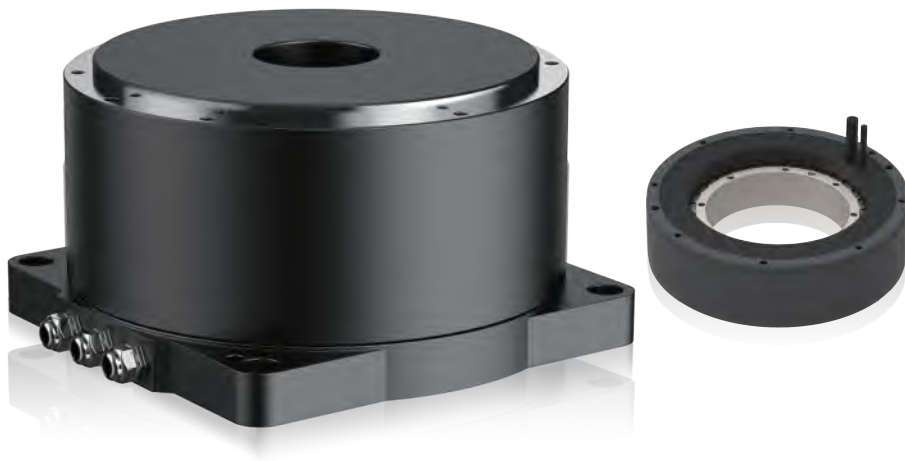
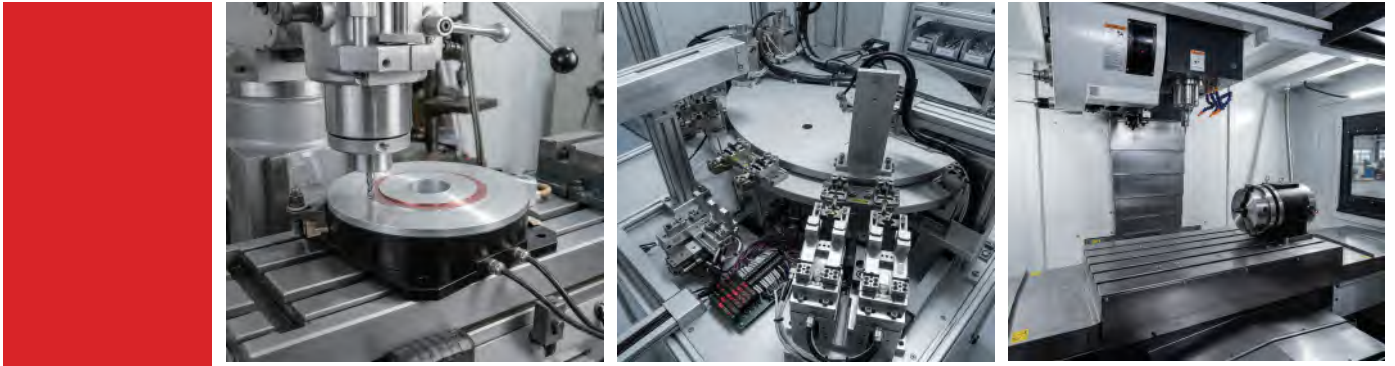


Rotary Motor



2026 | Catalog

I Selection Guide

T D D E - 265 105 - F W A - S Q - K24 - 40



*As standard, TPA motors are supplied with Servotronix and GoogolTech drives. If other drives are required, they must be purchased and configured separately.

Information required for Direct Drive Rotary Motor selection:

- 1 Load weight (to confirm loading and select an appropriate bearing)
- 2 Load geometry (to calculate the moving inertia)
- 3 Positioning accuracy (to select a suitable encoder; default repeatability: ± 2 arcsec)
- 4 Motion profile (rotation angle and move time / cycle time, used to determine the required motor speed)
- 5 Dwell time (the interval between moves; shorter dwell time may increase temperature rise)
- 6 Mounting orientation (horizontal, side-mounted, inverted; significantly affects bearing loading)
- 7 Drive interface / control method (I/O, pulse, fieldbus)
- 8 Extension cable length (motor cable: 0.3 m standard; default extension cable: 4 m)
- 9 Additional requirements (e.g., IP rating, high-temperature operation, hollow bore, external loads/forces, etc.)

Rotary Motor Specifications

Page	Model	Diameter (mm)	Height (mm)	Peak Torque (NM)	IP65	Cooling	Brake
7	TDI-030036-SB-K4-40	30	36	0.255			
8	TDE-040042-SQ-K7-40	40	42	0.6			
9	TDE-060060-SB-K15-40	60	60	1.9			
10	TDE-080067-SZ-K12-40	80	67	3.9			
11	TDI-080067-SZ-K12-40	80	67	2.1			
12	TDE-112065-SZ-K24-40	112	65	10.3			
13	TDI-120050-SX-K42-40	120	50	9.1			
14	TDE-140050-SX-K30-40	140	50	16			
15	TDE-140080-SX-K20-40	140	80	28			
16	TDI-145140-BD-K00-40	145	140	27			
17	TDI-167095-SC-K00-40	167	95	52			
18	TDE-170050-SZ-K42-40	170	50	29.2			
19	TDE-170095-SZ-K42-40	170	95	92			
20	TDE-224042-SX-K50.5-40	224	42	42			
21	TDE-224062-SZ-K50.5-40	224	62	105			
22	TDE-263188-SX-K80-40	263	188	468			
23	TDE-264095-SZ-K80-40	264	95	160.42			
24	TDE-264137-SZ-K80-40	264	137	315.49			
25	TDE-265065-SX-K70-40	265	65	86.4			
26	TDE-265075-SL-K115-40	265	75	117			
27	TDI-375150-SX-K80-40	375	150	650			
28	TDI-375200-SX-K80-40	375	200	975			
29	TDI-408165-SX-K80-40	408	165	1250			
30	TDI-408231-SL-K100-40	408	231	1875			
31	TDI-525089-SA-K380-40	525	89	300			
32	TDI-670229-SJ-K240-40	670	229	3600			
33	TDI-138065-F-SD-K42-40	138	65	15.5	√		
34	TDI-150162-FWA-SE-K28-40	150	162	36.66	√	√	√
35	TDI-165065-F-SE-K51-40	165	65	26	√		
36	TDDI-168145-SD-K30-40	168	145	90			
37	TDI-170095-F-SE-K42-40	170	95	30	√		
38	TDI-170155-F-SE-K42-40	170	155	117	√		
39	TDI-230273-FWA-BE-K36-40	230	273	180	√	√	√
40	TDI-240135-FA-SE-K30-40	240	135	200	√		√
41	TDI-250273-FW-BE-K36-40	250	273	500	√	√	
42	TDI-260155-FWA-SE-K30-40	260	155	510	√	√	√
43	TDDE-263144.5-SX-K60-40	263	144.5	291.2			
44	TDE-264177-A-SZ-K50-40	264	177	315.49			√
45	TDI-280200-F-SZ-K50-40	280	200	260	√		
46	TDI-280055-A-SZ-K50-40	280	55	40			√
47	TDI-375296-FW-BE-K36-40	375	296	560	√	√	
48	TDI-380200-FA-SE-K00-40	380	200	800	√		√
49	TDI-380440-FW-BH-K40-40	380	440	1600	√	√	
50	TDI-396180-FO-SE-K50-40	396	180	1250	√	√	
51	TDI-396160-FWA-SE-K40-40	396	160	650	√	√	√
52	TDI-450133-FWO-SE-K50-40	450	133	800	√	√	√
53	TDI-650350-W-SE-K50-40	650	350	5000		√	
54	TDI-1000350-W-SE-K50-40	1000	350	20000		√	

➤ TDI-030036-SB-K4-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ High efficiency with low mechanical loss
- ✓ High positioning accuracy and repeatability

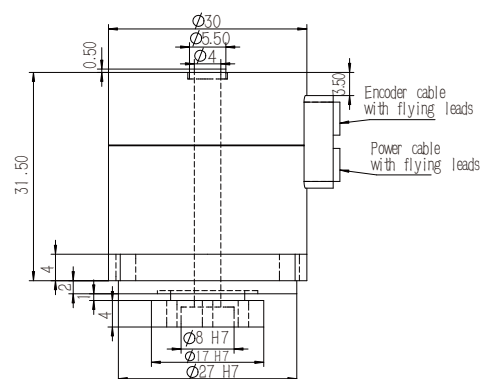
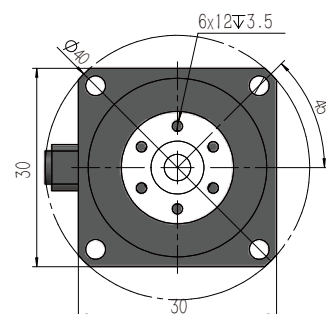


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 21 Bit

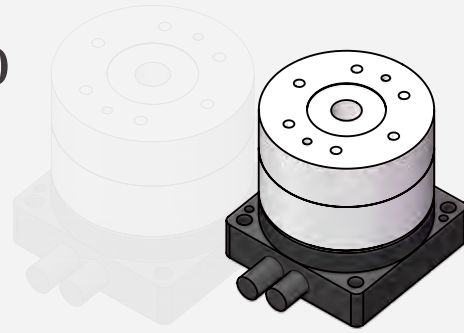
Performance Parameters	Unit	Value
Diameter	mm	30
Height	mm	36
Hollow Bore Diameter	mm	4
Axial Run Out	μm	15
Radial Run Out	μm	15
Mass	kg	0.12
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±3
Absolute Position Accuracy	Arc sec	±30
Axial Load	N	50
Motor constant	Nm/Spmt	0.036
Maximum Output Power	W	10
Rated torque	N·M	0.092
Peak torque	N·M	0.255
Rated current	A rms	1.8
Peak current	A rms	5
Maximum Speed	rpm	1000
Resistance(ptp)±10%	Ω	4
Inductance(ptp)±30%	mH(25°C)	1.24
Torque Constant±10%	Nm/A rms	0.05
Number of poles	-	22
Rotor Inertia	kg·m ²	0.009
Back EMF Constant	Vrms/(rad/s)	0.029
Max. DC BUS	V	48

*All the specifications in the table are in 10% of tolerance.



➤ TDE-040042-SQ-K7-40

- ✓ External Rotor
- ✓ Low speed, high torque
- ✓ High positioning accuracy and repeatability
- ✓ Ideal for high-precision rotary applications

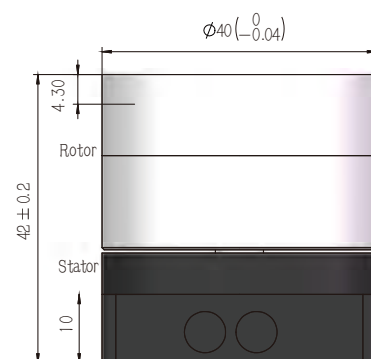
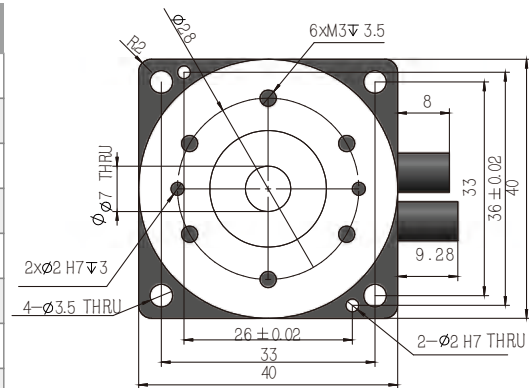


Encoder Features:

- ✓ Protocol: Incremental A/B/Z
- ✓ Resolution: 580608 Pulse/rev

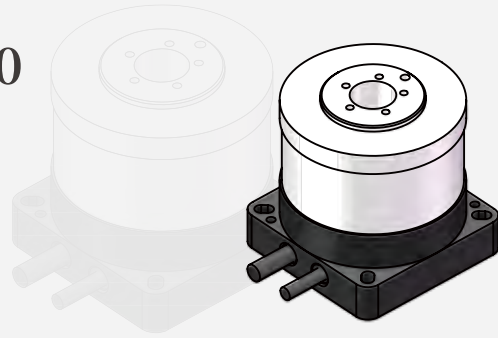
Performance Parameters	Unit	Value
Diameter	mm	40
Height	mm	42
Hollow Bore Diameter	mm	7
Axial Run Out	μm	15
Radial Run Out	μm	15
Mass	kg	0.2
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±3
Absolute Position Accuracy	Arc sec	±30
Axial Load	N	50
Motor constant	Nm/Sprt	0.095
Maximum Output Power	W	11
Rated torque	N-M	0.2
Peak torque	N-M	0.6
Rated current	A rms	1
Peak current	A rms	3
Maximum Speed	rpm	500
Resistance(ptp)±10%	Ω	8.8
Inductance(ptp)±30%	mH(25°C)	4
Torque Constant±10%	Nm/A rms	0.2
Number of poles	-	22
Rotor Inertia	kg-m2	0.3
Back EMF Constant	Vrms/(rad/s)	0.116
Max. DC BUS	V	48

*All the specifications in the table are in 10% of tolerance.



➤ TDE-060060-SB-K15-40

- ✓ External Rotor
- ✓ Low speed, high torque
- ✓ High positioning accuracy and repeatability
- ✓ Ideal for high-precision rotary applications

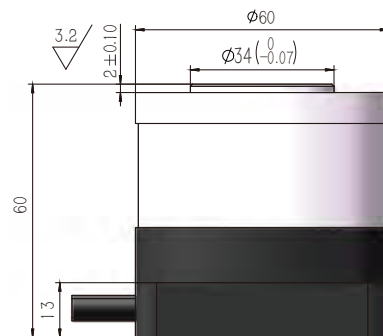
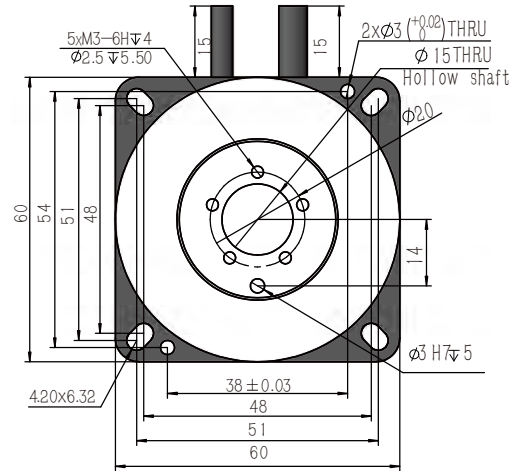


Encoder Features:

- ✓ Protocol: Incremental A/B/Z
- ✓ Resolution: 456704 Pulse/rev

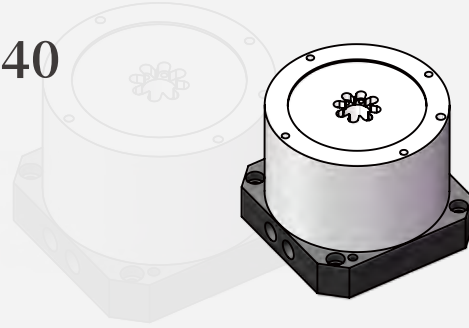
Performance Parameters	Unit	Value
Diameter	mm	60
Height	mm	60
Hollow Bore Diameter	mm	15
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	0.6
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±4
Absolute Position Accuracy	Arc sec	±40
Axial Load	N	50
Motor constant	Nm/Spri	0.44
Maximum Output Power	W	32
Rated torque	N-M	1.26
Peak torque	N-M	1.9
Rated current	A rms	1.28
Peak current	A rms	1.9
Maximum Speed	rpm	240
Resistance(otp)±10%	Ω	10
Inductance(otp)±30%	mH(25°C)	15
Torque Constant±10%	Nm/A rms	0.98
Number of poles	-	22
Rotor Inertia	kg-m2	1.5
Back EMF Constant	Vrms/(rad/s)	0.571
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDE-080067-SZ-K12-40

- ✓ External Rotor
- ✓ Low speed, high torque
- ✓ High positioning accuracy and repeatability
- ✓ Ideal for high-precision rotary applications

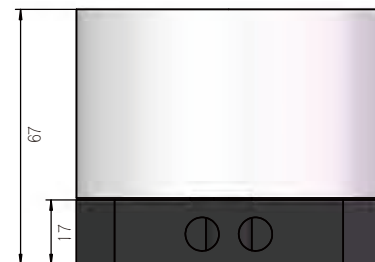
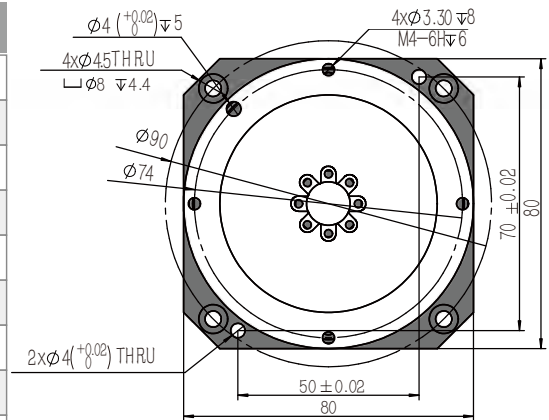


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 23 Bit

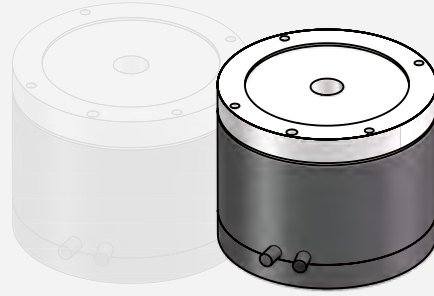
Performance Parameters	Unit	Value
Diameter	mm	80
Height	mm	67
Hollow Bore Diameter	mm	12
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	1.8
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±3
Absolute Position Accuracy	Arc sec	±30
Axial Load	N	100
Motor constant	Nm/Sprt	0.477
Maximum Output Power	W	71
Rated torque	N-M	1.5
Peak torque	N-M	3.9
Rated current	A rms	3
Peak current	A rms	9
Maximum Speed	rpm	450
Resistance(otp)±10%	Ω	5.4
Inductance(otp)±30%	mH(25°C)	7
Torque Constant±10%	Nm/A rms	0.5
Number of poles	-	20
Rotor Inertia	kg-m2	0.00022
Back EMF Constant	Vrms/(rad/s)	0.29
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDI-080067-SZ-K12-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ High efficiency with low mechanical loss
- ✓ High positioning accuracy and repeatability

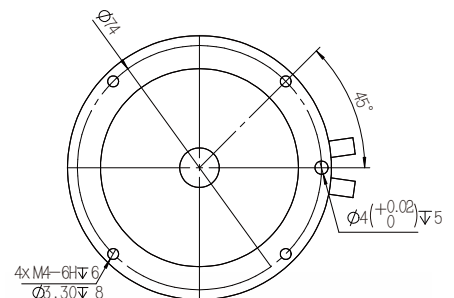
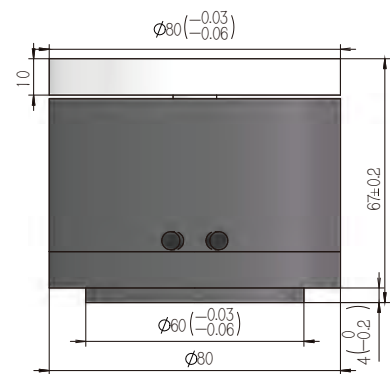
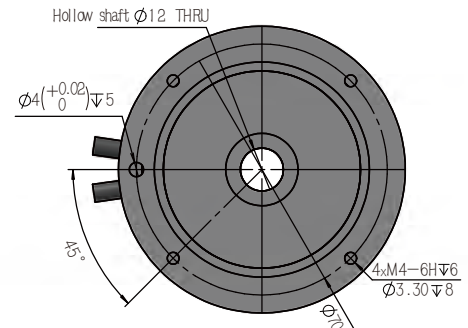


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 23 Bit

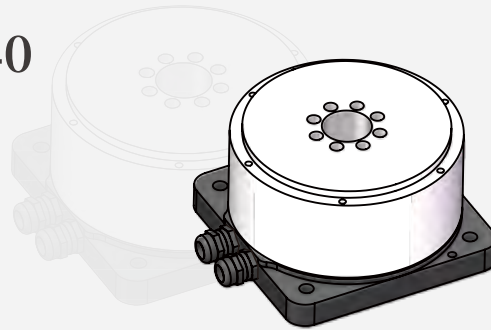
Performance Parameters	Unit	Value
Diameter	mm	80
Height	mm	67
Hollow Bore Diameter	mm	12
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	1.8
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±3
Absolute Position Accuracy	Arc sec	±30
Axial Load	N	100
Motor constant	Nm/Sprrt	0.169
Maximum Output Power	W	40
Rated torque	N·M	0.84
Peak torque	N·M	2.1
Rated current	A rms	3
Peak current	A rms	9
Maximum Speed	rpm	450
Resistance(otp)±10%	Ω	5.5
Inductance(otp)±30%	mH(25°C)	6.6
Torque Constant±10%	Nm/A rms	0.28
Number of poles	-	20
Rotor Inertia	kg·m ²	0.00023
Back EMF Constant	Vrms/(rad/s)	0.162
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDE-112065-SZ-K24-40

- ✓ External Rotor
- ✓ Low speed, high torque
- ✓ High positioning accuracy and repeatability
- ✓ Ideal for high-precision rotary applications

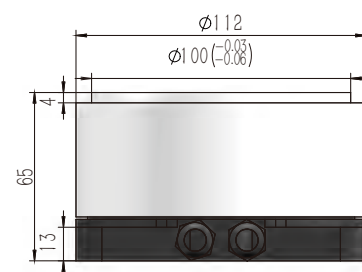
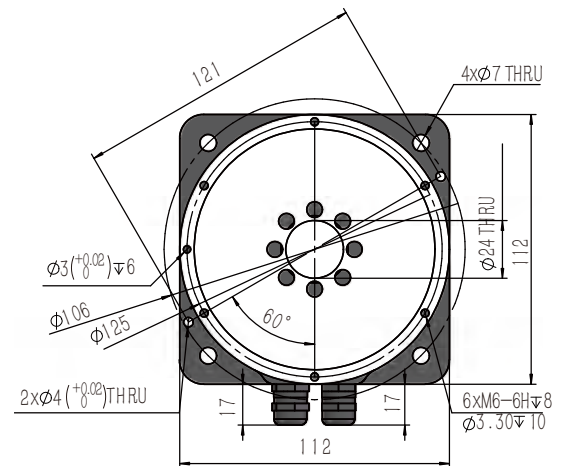


Encoder Features:

- ✓ Protocol: Tamagawa
- ✓ Resolution: 23 Bit

Performance Parameters	Unit	Value
Diameter	mm	112
Height	mm	65
Hollow Bore Diameter	mm	24
Axial Run Out	μm	5
Radial Run Out	μm	5
Mass	kg	2.2
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±15
Axial Load	N	500
Motor constant	Nm/Spri	0.987
Maximum Output Power	W	203
Rated torque	N-M	4.3
Peak torque	N-M	10.3
Rated current	A rms	3
Peak current	A rms	10.5
Maximum Speed	rpm	450
Resistance(otp)±10%	Ω	4.2
Inductance(otp)±30%	mH(25°C)	6.1
Torque Constant±10%	Nm/A rms	1.43
Number of poles	-	40
Rotor Inertia	kg-m2	0.0026
Back EMF Constant	Vrms/(rad/s)	0.83
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDI-120050-SX-K42-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ High efficiency with low mechanical loss
- ✓ High positioning accuracy and repeatability

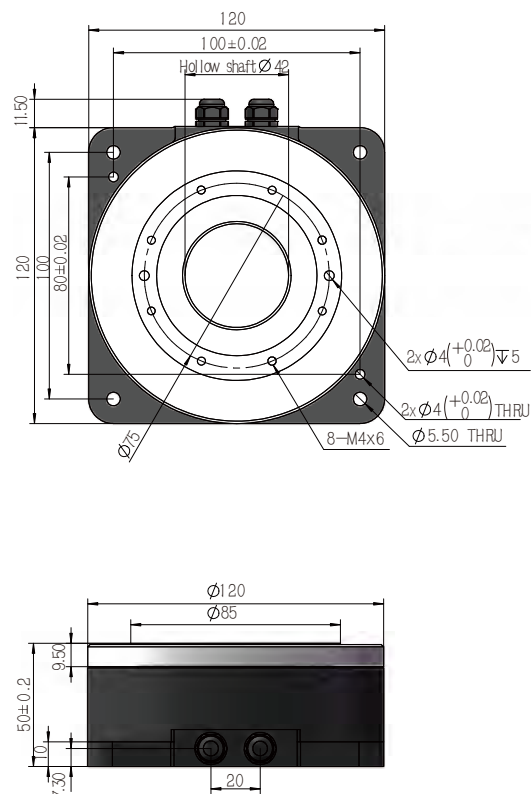


Encoder Features:

- ✓ Protocol: Incremental A/B/Z
- ✓ Resolution: 1174000 Pulse/rev

Performance Parameters	Unit	Value
Diameter	mm	120
Height	mm	50
Hollow Bore Diameter	mm	42
Axial Run Out	μm	5
Radial Run Out	μm	5
Mass	kg	2.3
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±20
Axial Load	N	500
Motor constant	Nm/Sprrt	0.72
Maximum Output Power	W	73
Rated torque	N·M	3.5
Peak torque	N·M	9.1
Rated current	A rms	1.3
Peak current	A rms	3.9
Maximum Speed	rpm	200
Resistance(otp)±10%	Ω	28.2
Inductance(otp)±30%	mH(25°C)	18.2
Torque Constant±10%	Nm/A rms	2.69
Number of poles	-	20
Rotor Inertia	kg·m ²	0.0017
Back EMF Constant	Vrms/(rad/s)	1.56
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDE-140050-SX-K30-40

- ✓ External Rotor
- ✓ Low speed, high torque
- ✓ High positioning accuracy and repeatability
- ✓ Ideal for high-precision rotary applications

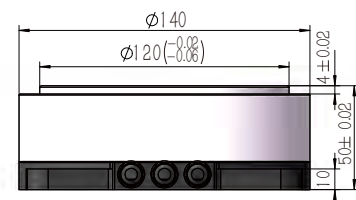
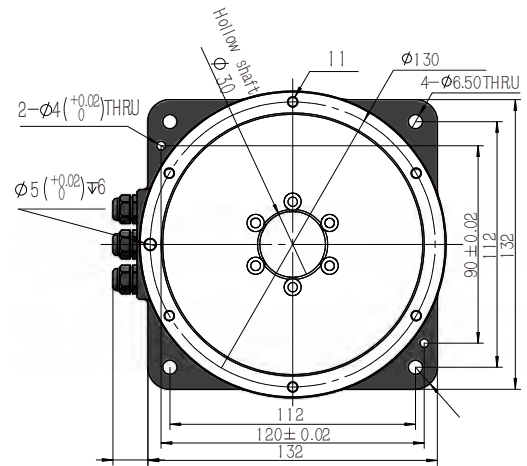


Encoder Features:

- ✓ Protocol: Incremental A/B/Z
- ✓ Resolution: 1174000 Pulse/rev

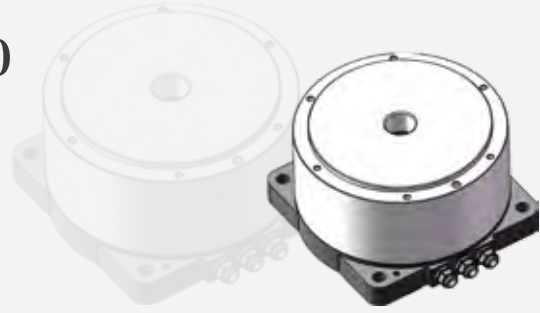
Performance Parameters	Unit	Value
Diameter	mm	140
Height	mm	50
Hollow Bore Diameter	mm	30
Axial Run Out	μm	5
Radial Run Out	μm	5
Mass	kg	3.4
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±1.5
Absolute Position Accuracy	Arc sec	±20
Axial Load	N	500
Motor constant	Nm/Sprrt	1.765
Maximum Output Power	W	377
Rated torque	N-M	6
Peak torque	N-M	16
Rated current	A rms	2.5
Peak current	A rms	7
Maximum Speed	rpm	600
Resistance(otp)±10%	Ω	3.7
Inductance(otp)±30%	mH(25°C)	3.8
Torque Constant±10%	Nm/A rms	2.4
Number of poles	-	28
Rotor Inertia	kg-m2	0.0045
Back EMF Constant	Vrms/(rad/s)	1.39
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDE-140080-SX-K20-40

- ✓ External Rotor
- ✓ Low speed, high torque
- ✓ High positioning accuracy and repeatability
- ✓ Ideal for high-precision rotary applications

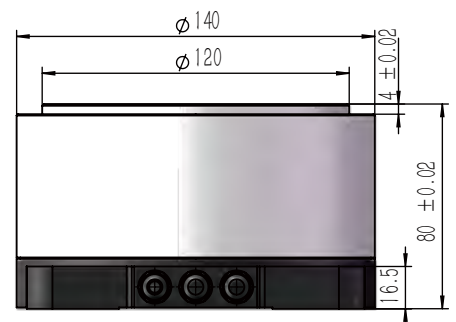
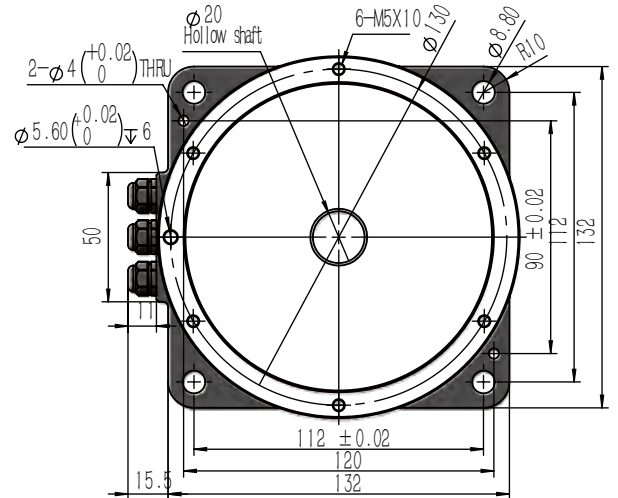


Encoder Features:

- ✓ Protocol: Incremental A/B/Z
- ✓ Resolution: 819200 Pulse/rev

Performance Parameters	Unit	Value
Diameter	mm	140
Height	mm	80
Hollow Bore Diameter	mm	20
Axial Run Out	μm	5
Radial Run Out	μm	5
Mass	kg	5.6
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±1.5
Absolute Position Accuracy	Arc sec	±20
Axial Load	N	500
Motor constant	Nm/Sprrt	2.445
Maximum Output Power	W	385
Rated torque	N·M	10.5
Peak torque	N·M	28
Rated current	A rms	2.5
Peak current	A rms	7
Maximum Speed	rpm	350
Resistance(otp)±10%	Ω	5.9
Inductance(otp)±30%	mH(25°C)	6
Torque Constant±10%	Nm/A rms	4.2
Number of poles	-	28
Rotor Inertia	kg·m ²	0.0076
Back EMF Constant	Vrms/(rad/s)	2.436
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDI-145140-BD-K00-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ High efficiency with low mechanical loss
- ✓ High positioning accuracy and repeatability

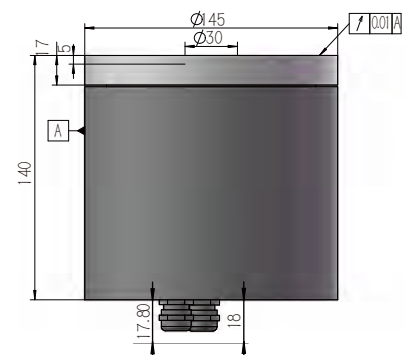
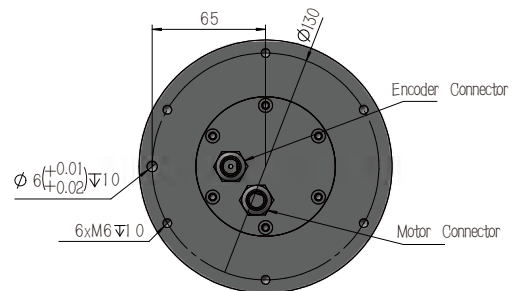
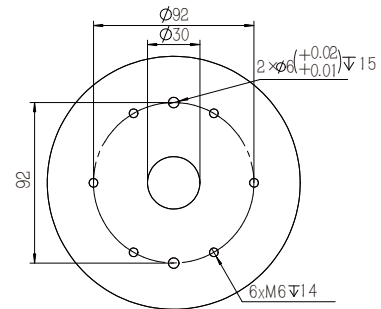


Encoder Features:

- ✓ Protocol: Tamagawa
- ✓ Resolution: 23 Bit

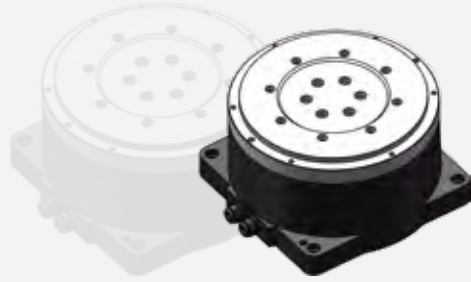
Performance Parameters	Unit	Value
Diameter	mm	145
Height	mm	140
Hollow Bore Diameter	mm	0
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	12
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±5
Absolute Position Accuracy	Arc sec	50
Axial Load	N	500
Motor constant	Nm/Sprt	0.974
Maximum Output Power	W	226
Rated torque	N-M	9
Peak torque	N-M	27
Rated current	A rms	3
Peak current	A rms	9
Maximum Speed	rpm	240
Resistance(otp)±10%	Ω	19
Inductance(otp)±30%	mH(25°C)	26
Torque Constant±10%	Nm/A rms	3
Number of poles	-	28
Rotor Inertia	kg-m2	0.0055
Back EMF Constant	Vrms/(rad/s)	1.74
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDI-167095-SC-K00-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ High efficiency with low mechanical loss
- ✓ High positioning accuracy and repeatability

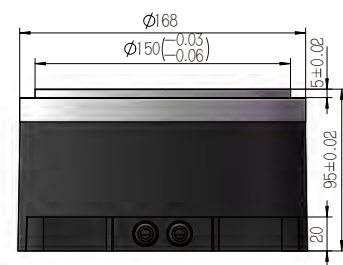
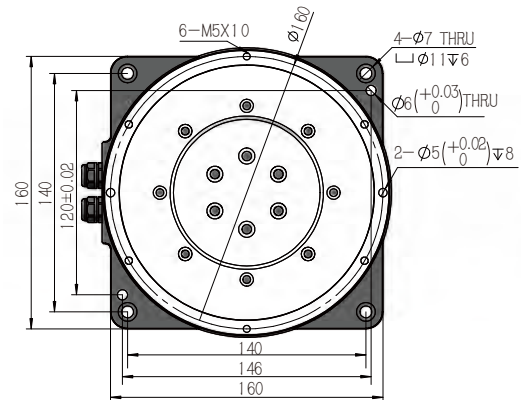


Encoder Features:

- ✓ Protocol: Tamagawa
- ✓ Resolution: 23 Bit

Performance Parameters	Unit	Value
Diameter	mm	167
Height	mm	95
Hollow Bore Diameter	mm	0
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	7
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±5
Absolute Position Accuracy	Arc sec	±50
Axial Load	N	500
Motor constant	Nm/Sprrt	3.489
Maximum Output Power	W	216
Rated torque	N-M	17.2
Peak torque	N-M	52
Rated current	A rms	3
Peak current	A rms	9
Maximum Speed	rpm	120
Resistance(ftp)±10%	Ω	5.4
Inductance(ftp)±30%	mH(25°C)	9.6
Torque Constant±10%	Nm/A rms	5.733
Number of poles	-	20
Rotor Inertia	kg-m2	0.0062
Back EMF Constant	Vrms/(rad/s)	3.325
Max. DC BUS	V	220

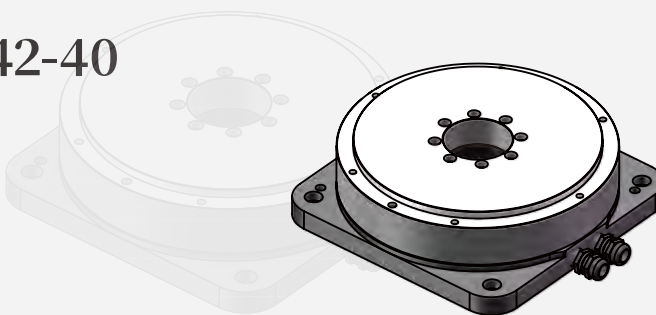
*All the specifications in the table are in 10% of tolerance.





➤ TDE-170050-SZ-K42-40

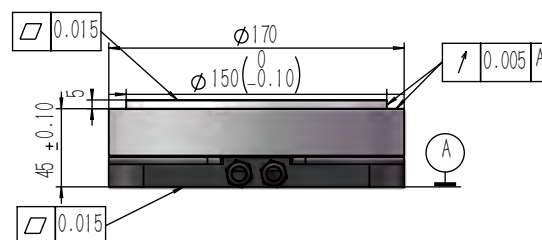
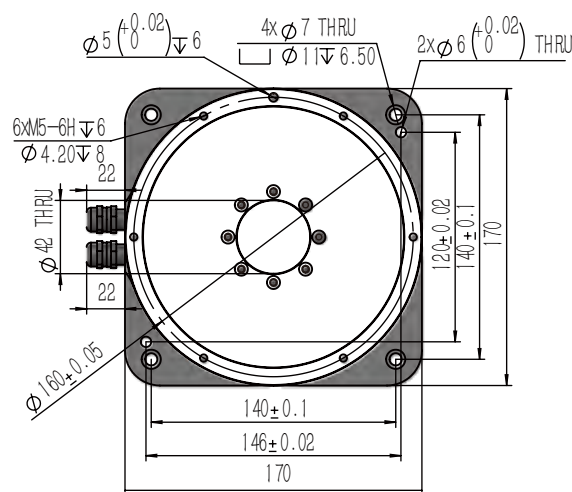
- ✔ External Rotor
- ✔ Low speed, high torque
- ✔ High positioning accuracy and repeatability
- ✔ Ideal for high-precision rotary applications



Encoder Features:

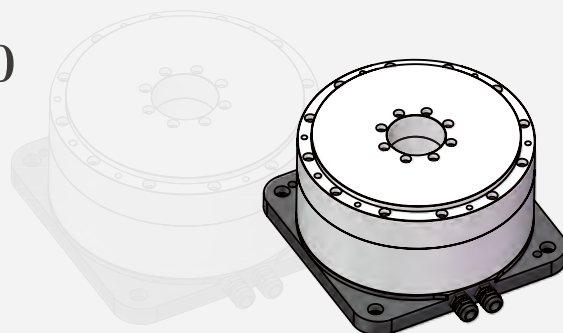
- ✓ Protocol: BISS-C
- ✓ Resolution: 23 Bit

Performance Parameters	Unit	Value
Diameter	mm	170
Height	mm	50
Hollow Bore Diameter	mm	42
Axial Run Out	μm	5
Radial Run Out	μm	5
Mass	kg	4.5
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±1
Absolute Position Accuracy	Arc sec	±10
Axial Load	N	3000
Motor constant	Nm/Sprt	1.823
Maximum Output Power	W	226
Rated torque	N·M	10.8
Peak torque	N·M	29.2
Rated current	A rms	3
Peak current	A rms	10.5
Maximum Speed	rpm	200
Resistance(otp)±10%	Ω	7.8
Inductance(otp)±30%	mH(25°C)	10.7
Torque Constant±10%	Nm/A rms	3.6
Number of poles	-	50
Rotor Inertia	kg·m2	0.007
Back EMF Constant	Vrms/(rad/s)	2.088
Max. DC BUS	V	220
*All the specifications in the table are in 10% of tolerance.		



➤ TDE-170095-SZ-K42-40

- ✓ External Rotor
- ✓ Low speed, high torque
- ✓ High positioning accuracy and repeatability
- ✓ Ideal for high-precision rotary applications

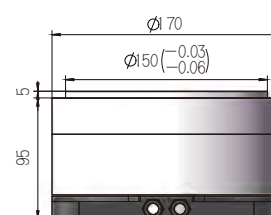
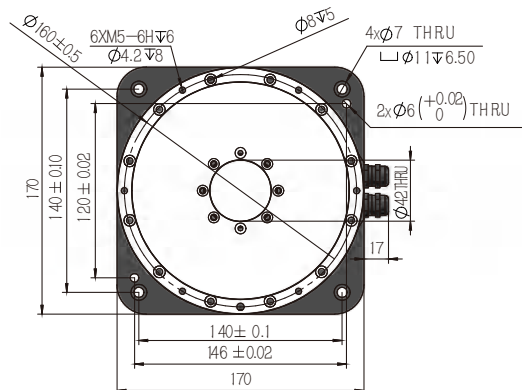


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 23 Bit

Performance Parameters	Unit	Value
Diameter	mm	170
Height	mm	95
Hollow Bore Diameter	mm	42
Axial Run Out	μm	5
Radial Run Out	μm	5
Mass	kg	7
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±1
Absolute Position Accuracy	Arc sec	±10
Axial Load	N	3000
Motor constant	Nm/Sprt	3.748
Maximum Output Power	W	753
Rated torque	N-M	36
Peak torque	N-M	92
Rated current	A rms	3
Peak current	A rms	9
Maximum Speed	rpm	180
Resistance(otp)±10%	Ω	20.5
Inductance(otp)±30%	mH(25°C)	36.2
Torque Constant±10%	Nm/A rms	12
Number of poles	-	50
Rotor Inertia	kg-m2	0.023
Back EMF Constant	Vrms/(rad/s)	6.96
Max. DC BUS	V	220

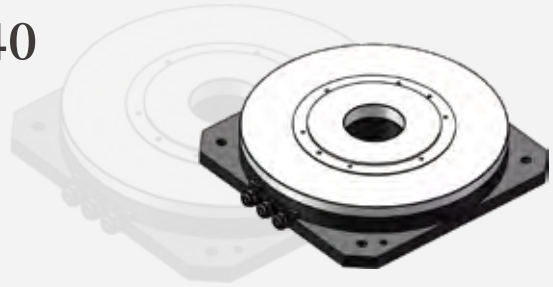
*All the specifications in the table are in 10% of tolerance.





➤ TDE-224042-SX-K50.5-40

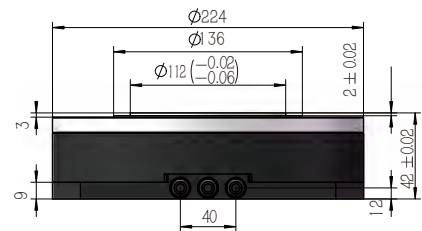
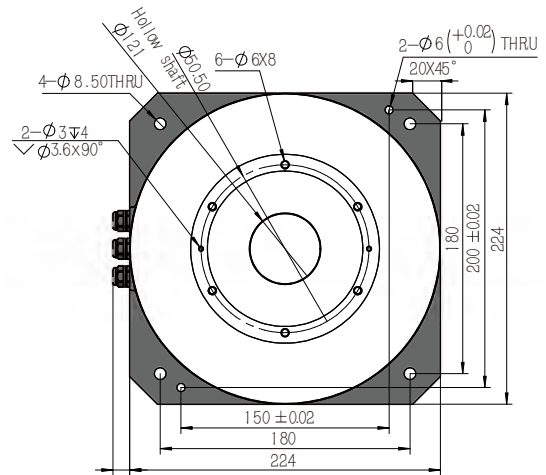
- ✔ External Rotor
- ✔ Low speed, high torque
- ✔ High positioning accuracy and repeatability
- ✔ Ideal for high-precision rotary applications



Encoder Features:

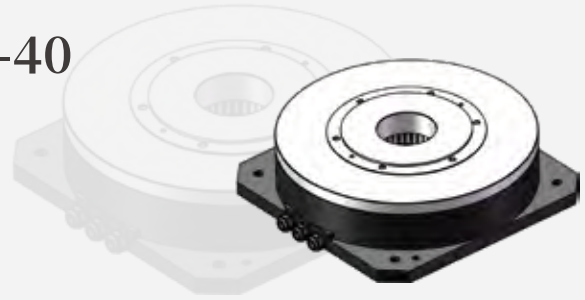
- ✓ Protocol: Incremental A/B/Z
- ✓ Resolution: 1174000 Pulse/rev

Performance Parameters	Unit	Value
Diameter	mm	224
Height	mm	42
Hollow Bore Diameter	mm	50.5
Axial Run Out	μm	5
Radial Run Out	μm	5
Mass	kg	5.5
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±20
Axial Load	N	3000
Motor constant	Nm/Sprṡ	3.069
Maximum Output Power	W	573
Rated torque	N·M	14.4
Peak torque	N·M	42
Rated current	A rms	2.2
Peak current	A rms	6.6
Maximum Speed	rpm	380
Resistance(ṡtp)±10%	Ω	9.2
Inductance(ṡtp)±30%	mH(25°C)	16.8
Torque Constant±10%	Nm/A rms	6.545
Number of poles	-	40
Rotor Inertia	kg·m2	0.012
Back EMF Constant	Vrms/(rad/s)	3.796
Max. DC BUS	V	220
*All the specifications in the table are in 10% of tolerance.		



➤ TDE-224062-SZ-K50.5-40

- ✓ External Rotor
- ✓ Low speed, high torque
- ✓ High positioning accuracy and repeatability
- ✓ Ideal for high-precision rotary applications

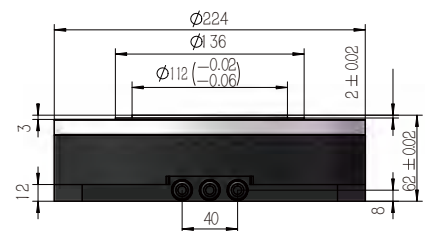
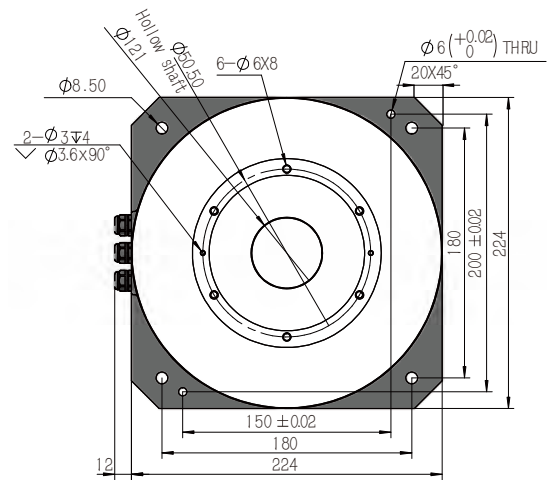


Encoder Features:

- ✓ Protocol: Incremental A/B/Z
- ✓ Resolution: 1638400 Pulse/rev

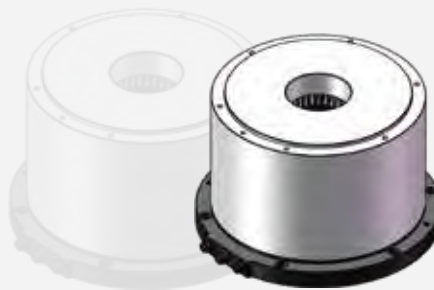
Performance Parameters	Unit	Value
Diameter	mm	224
Height	mm	62
Hollow Bore Diameter	mm	50.5
Axial Run Out	μm	5
Radial Run Out	μm	5
Mass	kg	9.2
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±1.5
Absolute Position Accuracy	Arc sec	±20
Axial Load	N	3000
Motor constant	Nm/Sprrt	6.056
Maximum Output Power	W	733
Rated torque	N-M	35
Peak torque	N-M	105
Rated current	A rms	2.2
Peak current	A rms	6.6
Maximum Speed	rpm	200
Resistance(otp)±10%	Ω	13.8
Inductance(otp)±30%	mH(25°C)	40
Torque Constant±10%	Nm/A rms	15.9
Number of poles	-	40
Rotor Inertia	kg-m2	0.03
Back EMF Constant	Vrms/(rad/s)	9.227
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDE-263188-SX-K80-40

- ✓ External Rotor
- ✓ Low speed, high torque
- ✓ High positioning accuracy and repeatability
- ✓ Ideal for high-precision rotary applications

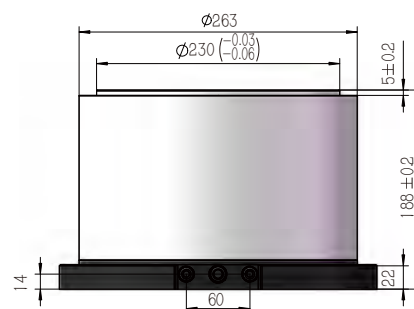
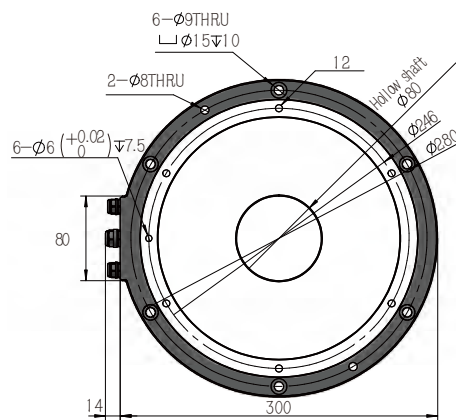


Encoder Features:

- ✓ Protocol: Incremental A/B/Z
- ✓ Resolution: 1638400 Pulse/rev

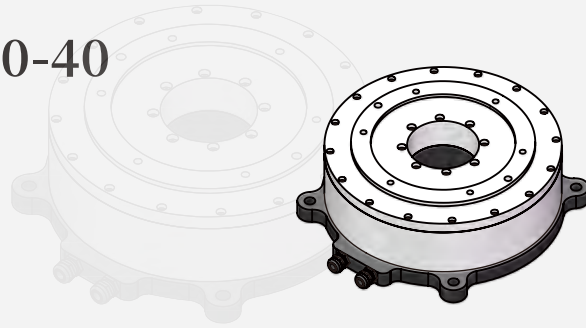
Performance Parameters	Unit	Value
Diameter	mm	263
Height	mm	188
Hollow Bore Diameter	mm	80
Axial Run Out	μm	8
Radial Run Out	μm	8
Mass	kg	49
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±1.5
Absolute Position Accuracy	Arc sec	±20
Axial Load	N	5000
Motor constant	Nm/Sprrt	14.049
Maximum Output Power	W	1885
Rated torque	N-M	180
Peak torque	N-M	468
Rated current	A rms	7
Peak current	A rms	21
Maximum Speed	rpm	100
Resistance(ftp)±10%	Ω	6.7
Inductance(ftp)±30%	mH(25°C)	22.8
Torque Constant±10%	Nm/A rms	25.714
Number of poles	-	40
Rotor Inertia	kg-m2	0.21
Back EMF Constant	Vrms/(rad/s)	14.914
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDE-264095-SZ-K80-40

- ✓ External Rotor
- ✓ Low speed, high torque
- ✓ High positioning accuracy and repeatability
- ✓ Ideal for high-precision rotary applications

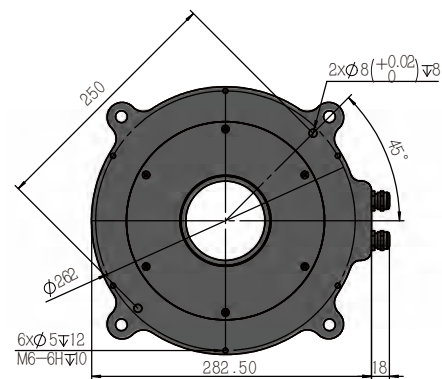
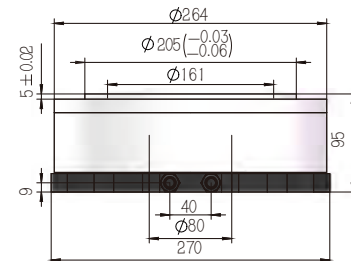
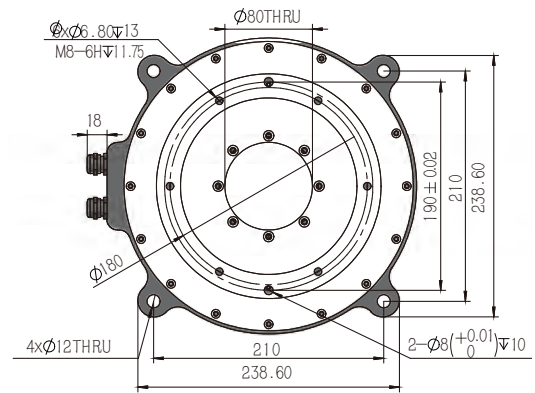


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

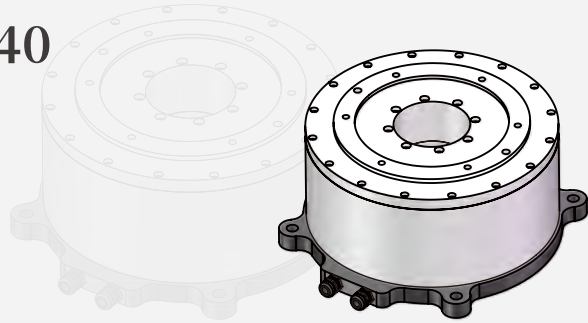
Performance Parameters	Unit	Value
Diameter	mm	264
Height	mm	95
Hollow Bore Diameter	mm	80
Axial Run Out	μm	5
Radial Run Out	μm	5
Mass	kg	20
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±1
Absolute Position Accuracy	Arc sec	±7
Axial Load	N	5000
Motor constant	Nm/Spmt	7.08
Maximum Output Power	W	1292
Rated torque	N-M	61.7
Peak torque	N-M	160.42
Rated current	A rms	7
Peak current	A rms	21
Maximum Speed	rpm	200
Resistance(otp)±10%	Ω	3.1
Inductance(otp)±30%	mH(25°C)	17.1
Torque Constant±10%	Nm/A rms	8.814
Number of poles	-	60
Rotor Inertia	kg-m2	0.095
Back EMF Constant	Vrms/(rad/s)	5.11
Max. DC BUS	V	380

*All the specifications in the table are in 10% of tolerance.



➤ TDE-264137-SZ-K80-40

- ✓ External Rotor
- ✓ Low speed, high torque
- ✓ High positioning accuracy and repeatability
- ✓ Ideal for high-precision rotary applications

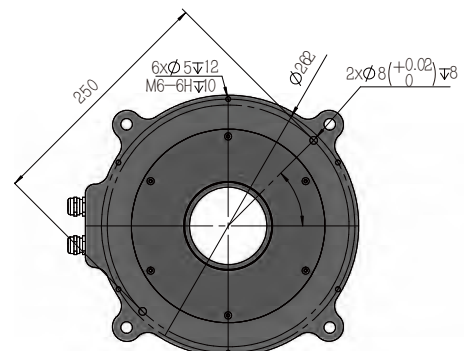
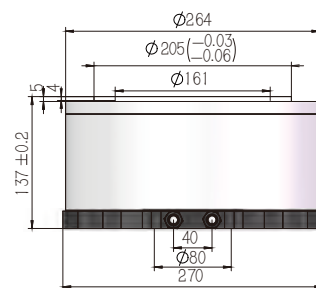
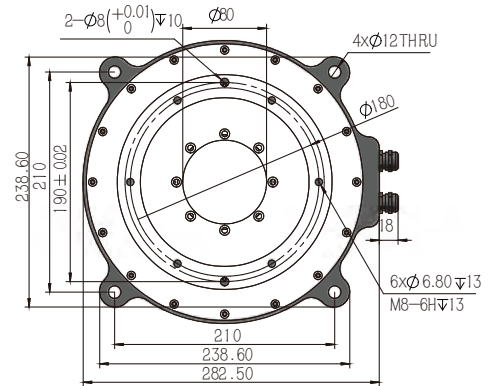


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

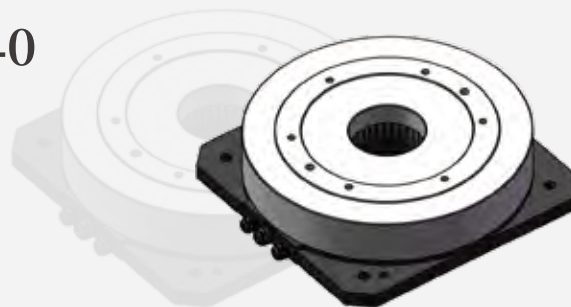
Performance Parameters	Unit	Value
Diameter	mm	264
Height	mm	137
Hollow Bore Diameter	mm	80
Axial Run Out	μm	6
Radial Run Out	μm	6
Mass	kg	20
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±1
Absolute Position Accuracy	Arc sec	±7
Axial Load	N	5000
Motor constant	Nm/Sprt	11.025
Maximum Output Power	W	1354
Rated torque	N-M	129.3
Peak torque	N-M	315.49
Rated current	A rms	7.5
Peak current	A rms	22.5
Maximum Speed	rpm	100
Resistance(ptp)±10%	Ω	4.89
Inductance(ptp)±30%	mH(25°C)	31.88
Torque Constant±10%	Nm/A rms	17.24
Number of poles	-	60
Rotor Inertia	kg-m2	0.095
Back EMF Constant	Vrms/(rad/s)	10
Max. DC BUS	V	380

*All the specifications in the table are in 10% of tolerance.



▶▶ TDE-265065-SX-K70-40

- ✓ External Rotor
- ✓ Low speed, high torque
- ✓ High positioning accuracy and repeatability
- ✓ Ideal for high-precision rotary applications

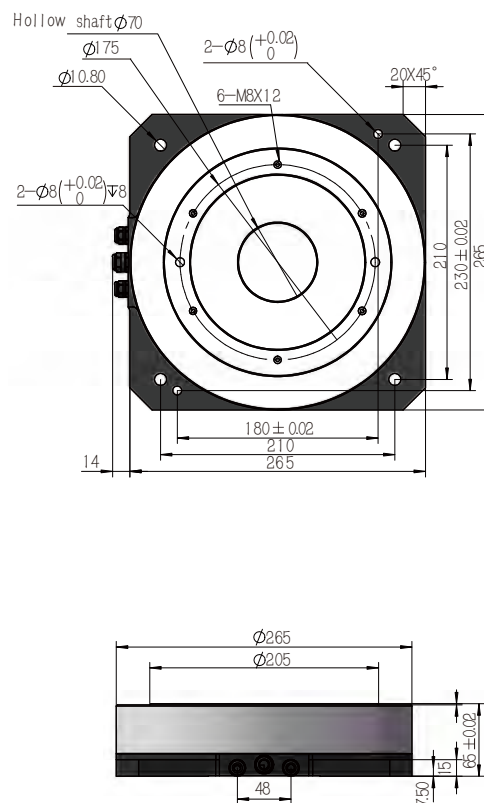


Encoder Features:

- ✓ Protocol: Incremental A/B/Z
- ✓ Resolution: 1638400 Pulse/rev

Performance Parameters	Unit	Value
Diameter	mm	265
Height	mm	65
Hollow Bore Diameter	mm	70
Axial Run Out	μm	8
Radial Run Out	μm	8
Mass	kg	13.6
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±1.5
Absolute Position Accuracy	Arc sec	±20
Axial Load	N	5000
Motor constant	Nm/Sprt	4.958
Maximum Output Power	W	670
Rated torque	N-M	32
Peak torque	N-M	86.4
Rated current	A rms	7
Peak current	A rms	21
Maximum Speed	rpm	200
Resistance(otp)±10%	Ω	1.7
Inductance(otp)±30%	mH(25°C)	5
Torque Constant±10%	Nm/A rms	4.571
Number of poles	-	40
Rotor Inertia	kg-m2	0.068
Back EMF Constant	Vrms/(rad/s)	2.65
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDE-265075-SL-K115-40

- ✓ External Rotor
- ✓ Low speed, high torque
- ✓ High positioning accuracy and repeatability
- ✓ Ideal for high-precision rotary applications

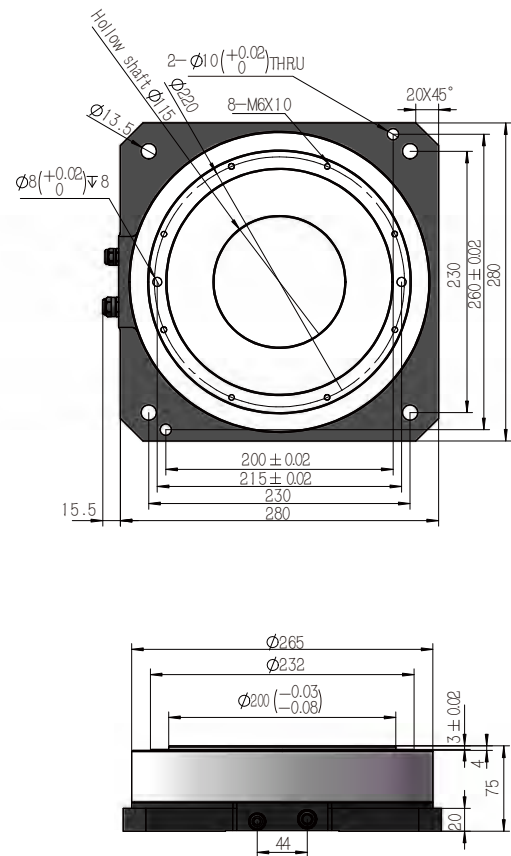


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

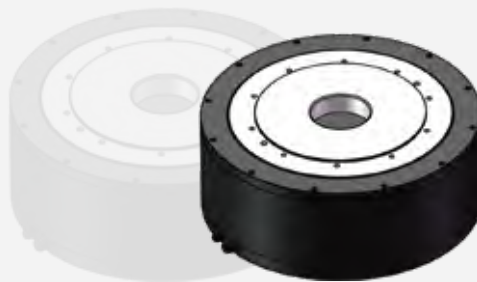
Performance Parameters	Unit	Value
Diameter	mm	265
Height	mm	75
Hollow Bore Diameter	mm	115
Axial Run Out	μm	15
Radial Run Out	μm	15
Mass	kg	14
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±1.5
Absolute Position Accuracy	Arc sec	±20
Axial Load	N	5000
Motor constant	Nm/Sprrt	6.973
Maximum Output Power	W	942
Rated torque	N-M	45
Peak torque	N-M	117
Rated current	A rms	7
Peak current	A rms	21
Maximum Speed	rpm	200
Resistance(ftp)±10%	Ω	1.7
Inductance(ftp)±30%	mH(25°C)	5
Torque Constant±10%	Nm/A rms	6.429
Number of poles	-	40
Rotor Inertia	kg-m2	0.068
Back EMF Constant	Vrms/(rad/s)	3.729
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDI-375150-SX-K80-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ High efficiency with low mechanical loss
- ✓ High positioning accuracy and repeatability

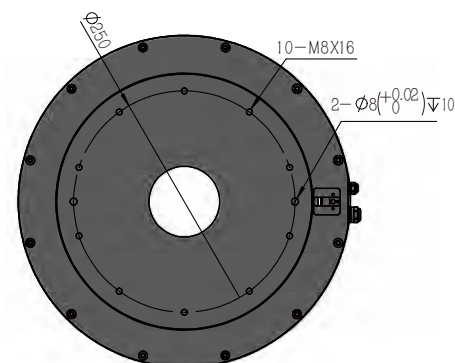
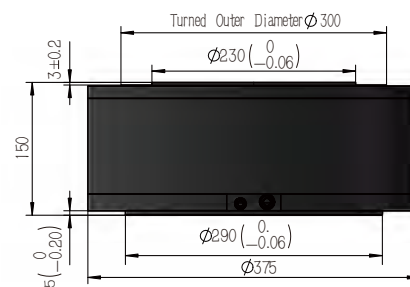
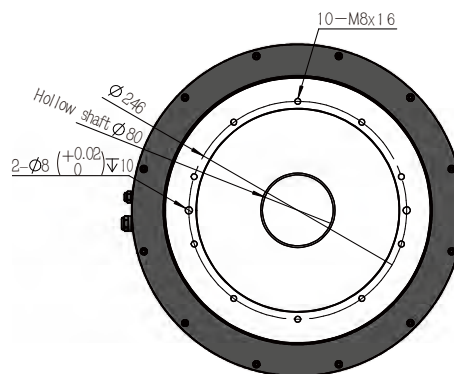


Encoder Features:

- ✓ Protocol: Incremental A/B/Z
- ✓ Resolution: 1638400 Pulse/rev

Performance Parameters	Unit	Value
Diameter	mm	375
Height	mm	150
Hollow Bore Diameter	mm	80
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	70
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±2.5
Absolute Position Accuracy	Arc sec	±30
Axial Load	N	10000
Motor constant	Nm/Sprt	24.398
Maximum Output Power	W	3957
Rated torque	N·M	250
Peak torque	N·M	650
Rated current	A rms	10
Peak current	A rms	30
Maximum Speed	rpm	150
Resistance(otp)±10%	Ω	2.1
Inductance(otp)±30%	mH(25°C)	10.4
Torque Constant±10%	Nm/A rms	24
Number of poles	-	30
Rotor Inertia	kg·m ²	0.32
Back EMF Constant	Vrms/(rad/s)	14.5
Max. DC BUS	V	380

*All the specifications in the table are in 10% of tolerance.



➤ TDI-375200-SX-K80-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ High efficiency with low mechanical loss
- ✓ High positioning accuracy and repeatability

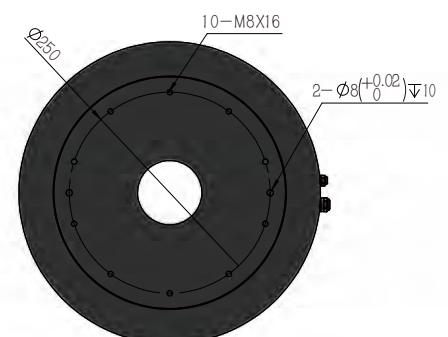
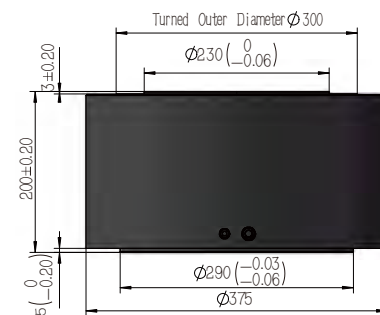
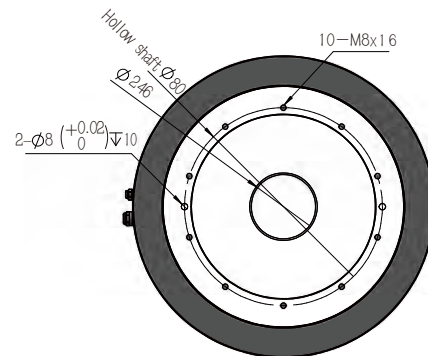


Encoder Features:

- ✓ Protocol: Incremental A/B/Z
- ✓ Resolution: 1638400 Pulse/rev

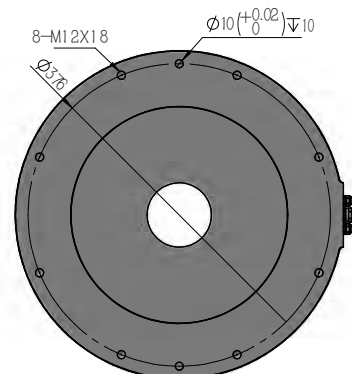
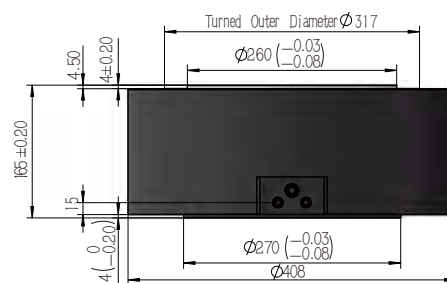
Performance Parameters	Unit	Value
Diameter	mm	375
Height	mm	200
Hollow Bore Diameter	mm	80
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	85
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±2.5
Absolute Position Accuracy	Arc sec	±30
Axial Load	N	20000
Motor constant	Nm/Sprt	30.619
Maximum Output Power	W	1963
Rated torque	N·M	375
Peak torque	N·M	975
Rated current	A rms	5
Peak current	A rms	15
Maximum Speed	rpm	50
Resistance(otp)±10%	Ω	12
Inductance(otp)±30%	mH(25°C)	68.8
Torque Constant±10%	Nm/A rms	75
Number of poles	-	30
Rotor Inertia	kg·m ²	0.46
Back EMF Constant	Vrms/(rad/s)	43.5
Max. DC BUS	V	380

*All the specifications in the table are in 10% of tolerance.



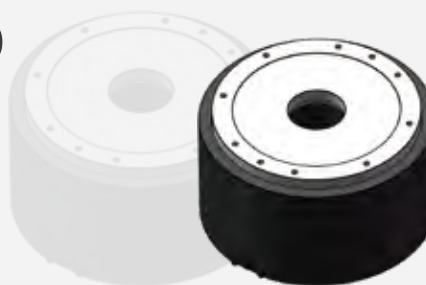
- Encoder Features:

- | Performance Parameters | Unit | Value |
|----------------------------|---------------------|--------|
| Diameter | mm | 408 |
| Height | mm | 165 |
| Hollow Bore Diameter | mm | 80 |
| Axial Run Out | μm | 10 |
| Radial Run Out | μm | 10 |
| Mass | kg | 94 |
| Ambient Temperature | °C | 0-50 |
| IP level | IP | 40 |
| Repeat Position Accuracy | Arc sec | ±2 |
| Absolute Position Accuracy | Arc sec | ±20 |
| Axial Load | N | 15000 |
| Motor constant | Nm/Spr _t | 44.466 |
| Maximum Output Power | W | 3141 |
| Rated torque | N·M | 500 |
| Peak torque | N·M | 1250 |
| Rated current | A rms | 8.5 |
| Peak current | A rms | 25.5 |
| Maximum Speed | rpm | 60 |
| Resistance(otp)±10% | Ω | 3.5 |
| Inductance(otp)±30% | mH(25°C) | 19 |
| Torque Constant±10% | Nm/A rms | 58.824 |
| Number of poles | - | 30 |
| Rotor Inertia | kg·m ² | 0.45 |
| Back EMF Constant | Vrms/(rad/s) | 34.118 |
| Max. DC BUS | V | 380 |



➤ TDI-408231-SL-K100-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ High efficiency with low mechanical loss
- ✓ High positioning accuracy and repeatability

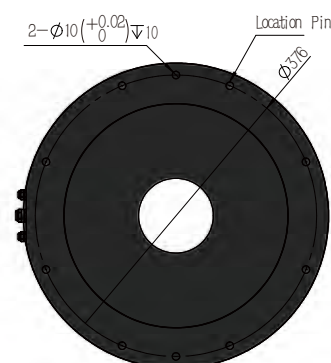
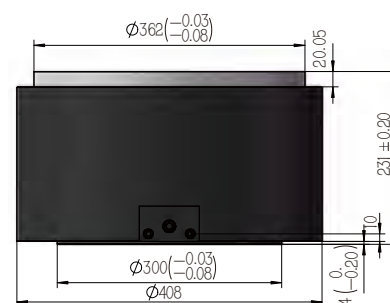
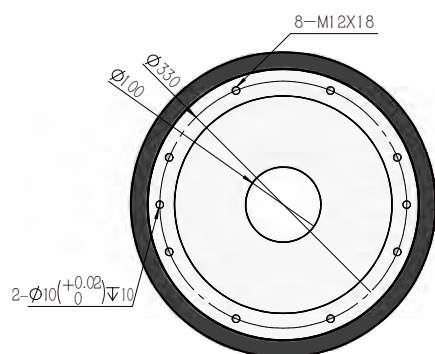


Encoder Features:

- ✓ Protocol: Incremental A/B/Z
- ✓ Resolution: 4720000 Pulse/rev

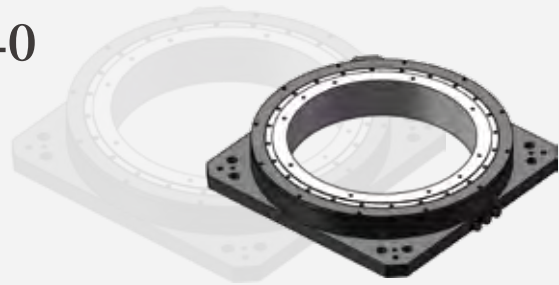
Performance Parameters	Unit	Value
Diameter	mm	480
Height	mm	231
Hollow Bore Diameter	mm	100
Axial Run Out	μm	12
Radial Run Out	μm	12
Mass	kg	175
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±20
Axial Load	N	15000
Motor constant	Nm/Sprrt	55.8
Maximum Output Power	W	3534
Rated torque	N·M	750
Peak torque	N·M	1875
Rated current	A rms	8.5
Peak current	A rms	25.5
Maximum Speed	rpm	45
Resistance(otp)±10%	Ω	5
Inductance(otp)±30%	mH(25°C)	27
Torque Constant±10%	Nm/A rms	88.23
Number of poles	-	40
Rotor Inertia	kg·m ²	1.1
Back EMF Constant	Vrms/(rad/s)	51.176
Max. DC BUS	V	380

*All the specifications in the table are in 10% of tolerance.



➤ TDI-525089-SA-K380-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ High efficiency with low mechanical loss
- ✓ High positioning accuracy and repeatability

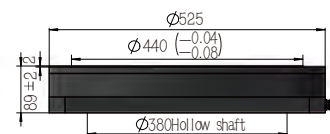
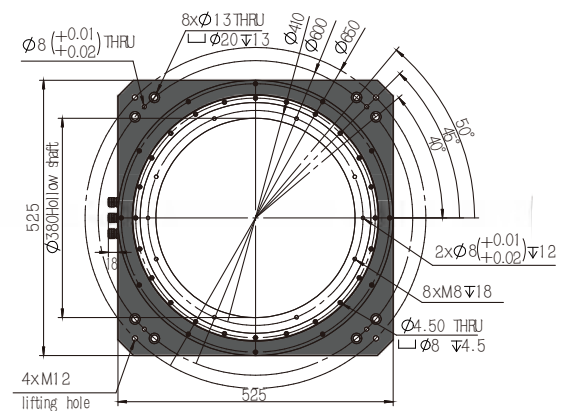


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

Performance Parameters	Unit	Value
Diameter	mm	525
Height	mm	89
Hollow Bore Diameter	mm	380
Axial Run Out	μm	15
Radial Run Out	μm	15
Mass	kg	50
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±5
Absolute Position Accuracy	Arc sec	±30
Axial Load	N	5000
Motor constant	Nm/Sprt	12.778
Maximum Output Power	W	1047
Rated torque	N·M	100
Peak torque	N·M	300
Rated current	A rms	3.5
Peak current	A rms	10.5
Maximum Speed	rpm	100
Resistance(ptp)±10%	Ω	10
Inductance(ptp)±30%	mH(25°C)	20
Torque Constant±10%	Nm/A rms	28.57
Number of poles	-	100
Rotor Inertia	kg·m ²	0.9
Back EMF Constant	Vrms/(rad/s)	16.57
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDI-670229-SJ-K240-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ High efficiency with low mechanical loss
- ✓ High positioning accuracy and repeatability

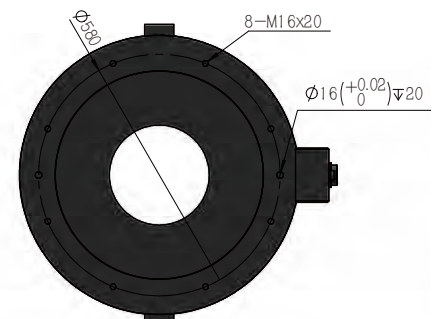
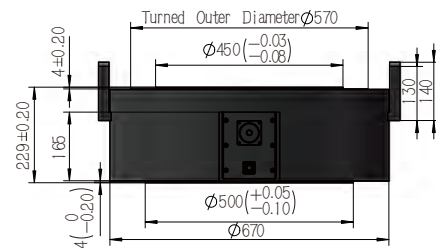
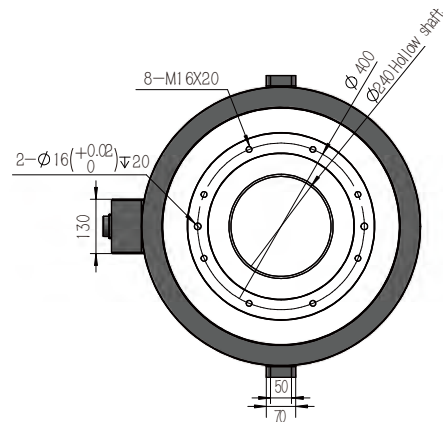


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 23 Bit

Performance Parameters	Unit	Value
Diameter	mm	670
Height	mm	229
Hollow Bore Diameter	mm	240
Axial Run Out	μm	20
Radial Run Out	μm	20
Mass	kg	450
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±20
Axial Load	N	100000
Motor constant	Nm/Sprt	85.37
Maximum Output Power	W	7330
Rated torque	N·M	2000
Peak torque	N·M	3600
Rated current	A rms	28
Peak current	A rms	50
Maximum Speed	rpm	50
Resistance(otp)±10%	Ω	1.4
Inductance(otp)±30%	mH(25°C)	13.2
Torque Constant±10%	Nm/A rms	71.429
Number of poles	-	80
Rotor Inertia	kg·m ²	7.4
Back EMF Constant	Vrms/(rad/s)	41.429
Max. DC BUS	V	380

*All the specifications in the table are in 10% of tolerance.



➤ TDI-138065-F-SD-K42-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ IP65 protection rating for harsh industrial environments
- ✓ Resistant to water and oil, ideal for machine tool applications

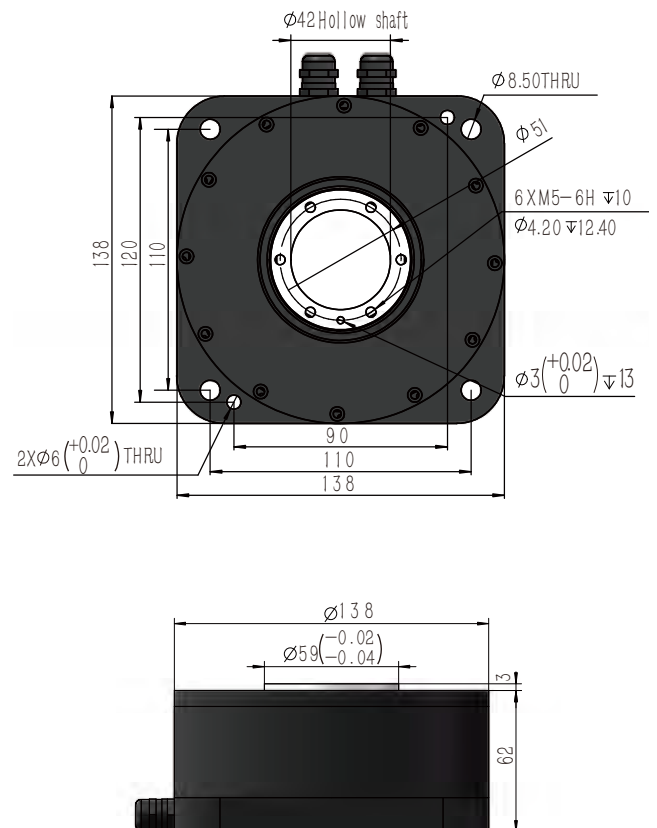


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 2 Bit

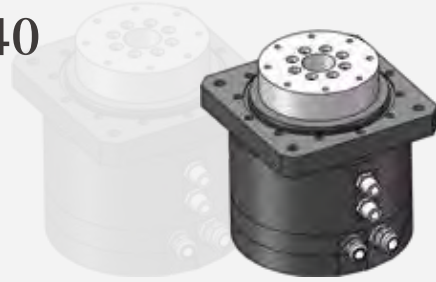
Performance Parameters	Unit	Value
Diameter	mm	138
Height	mm	65
Hollow Bore Diameter	mm	42
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	4
Ambient Temperature	°C	0-50
IP level	IP	65
Repeat Position Accuracy	Arc sec	±1.5
Absolute Position Accuracy	Arc sec	±15
Axial Load	N	500
Motor constant	Nm/Sprt	1.047
Maximum Output Power	W	189
Rated torque	N-M	6
Peak torque	N-M	15.5
Rated current	A rms	3
Peak current	A rms	9
Maximum Speed	rpm	300
Resistance(ptp)±10%	Ω	7.3
Inductance(ptp)±30%	mH(25°C)	30
Torque Constant±10%	Nm/A rms	2
Number of poles	-	28
Rotor Inertia	kg-m2	0.001
Back EMF Constant	Vrms/(rad/s)	1.16
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDI-150162-FWA-SE-K28-40

- ✓ Internal Rotor
- ✓ Circulating coolant provides efficient heat dissipation
- ✓ IP65 protection rating for harsh industrial environments
- ✓ Integrated holding brake

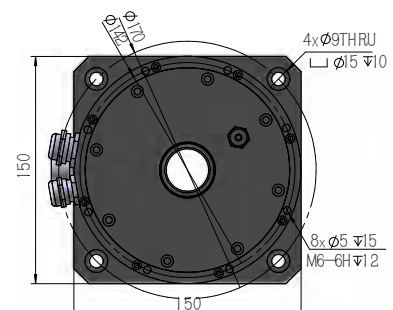
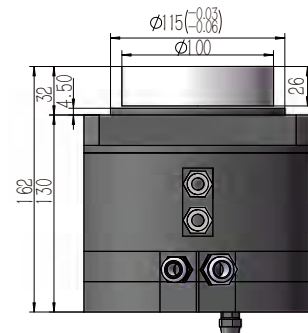
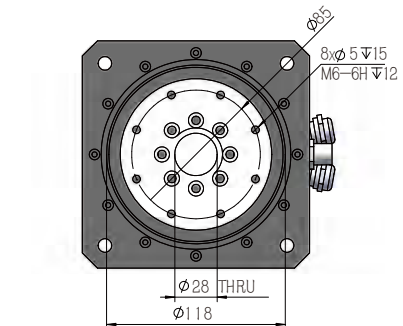


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

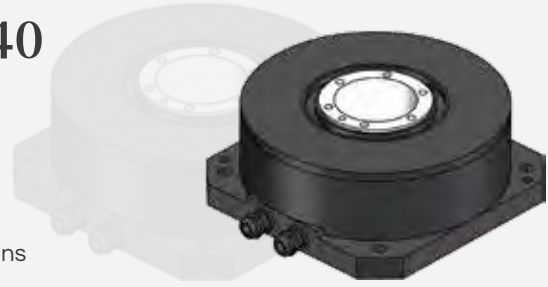
Performance Parameters	Unit	Value
Diameter	mm	150
Height	mm	162
Hollow Bore Diameter	mm	28
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	20
Ambient Temperature	°C	0-50
IP level	IP	65
Repeat Position Accuracy	Arc sec	±3
Absolute Position Accuracy	Arc sec	±10
Axial Load	N	500
Motor constant	Nm/Sprt	2.714
Maximum Output Power	W	443
Rated torque	N-M	14.1
Peak torque	N-M	36.66
Rated current	A rms	3
Peak current	A rms	9
Maximum Speed	rpm	300
Resistance(otp)±10%	Ω	6
Inductance(otp)±30%	mH(25°C)	8
Torque Constant±10%	Nm/A rms	4.7
Number of poles	-	64
Rotor Inertia	kg-m2	0.01
Back EMF Constant	Vrms/(rad/s)	2.762
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDI-165065-F-SE-K51-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ IP65 protection rating for harsh industrial environments
- ✓ Resistant to water and oil, ideal for machine tool applications

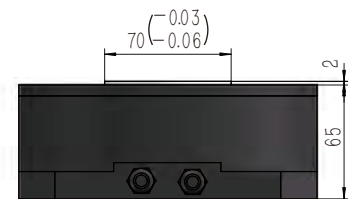
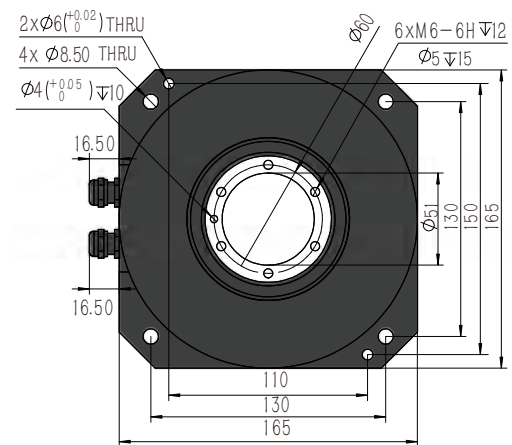


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

Performance Parameters	Unit	Value
Diameter	mm	165
Height	mm	65
Hollow Bore Diameter	mm	51
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	5
Ambient Temperature	°C	0-50
IP level	IP	65
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±10
Axial Load	N	1000
Motor constant	Nm/Sprt	1.924
Maximum Output Power	W	157
Rated torque	N-M	10
Peak torque	N-M	26
Rated current	A rms	3
Peak current	A rms	9
Maximum Speed	rpm	150
Resistance(ptp)±10%	Ω	6
Inductance(ptp)±30%	mH(25°C)	8
Torque Constant±10%	Nm/A rms	3.33
Number of poles	-	64
Rotor Inertia	kg-m2	0.01
Back EMF Constant	Vrms/(rad/s)	1.933
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDDI-168145-SD-K30-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ High efficiency with low mechanical loss
- ✓ High positioning accuracy and repeatability

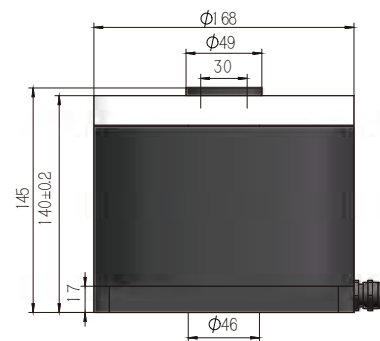
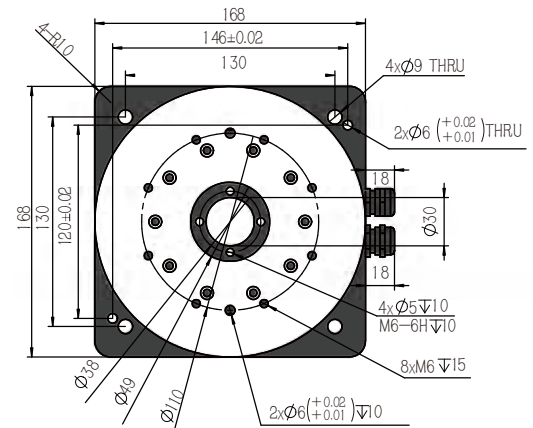


Encoder Features:

- ✓ Protocol: Tamagawa
- ✓ Resolution: 23 Bit

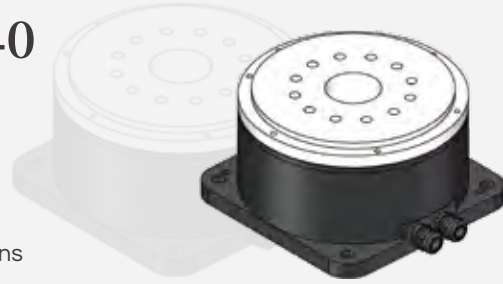
Performance Parameters	Unit	Value
Diameter	mm	168
Height	mm	145
Hollow Bore Diameter	mm	30
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	20
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±10
Axial Load	N	20000
Motor constant	Nm/Sprt	3.889
Maximum Output Power	W	1099
Rated torque	N-M	35
Peak torque	N-M	90
Rated current	A rms	3
Peak current	A rms	9
Maximum Speed	rpm	300
Resistance(ptp)±10%	Ω	6
Inductance(ptp)±30%	mH(25°C)	60
Torque Constant±10%	Nm/A rms	11.667
Number of poles	-	40
Rotor Inertia	kg-m2	0.06
Back EMF Constant	Vrms/(rad/s)	6.767
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



TDI-170095-F-SE-K42-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ IP65 protection rating for harsh industrial environments
- ✓ Resistant to water and oil, ideal for machine tool applications

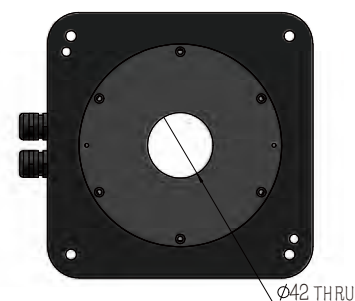
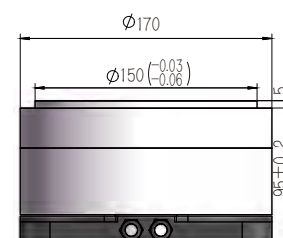
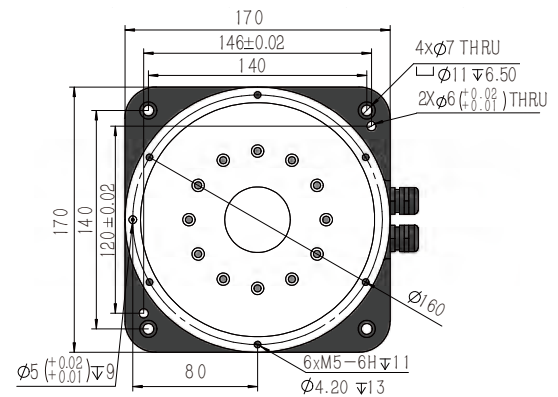


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

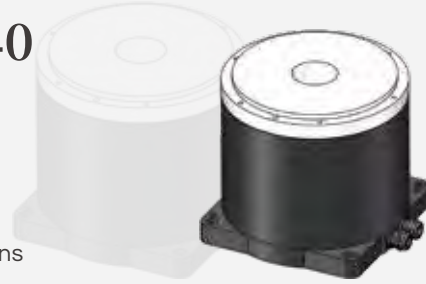
Performance Parameters	Unit	Value
Diameter	mm	170
Height	mm	95
Hollow Bore Diameter	mm	42
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	5
Ambient Temperature	°C	0-50
IP level	IP	65
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±10
Axial Load	N	500
Motor constant	Nm/Sprt	2.041
Maximum Output Power	W	628
Rated torque	N-M	15
Peak torque	N-M	30
Rated current	A rms	3
Peak current	A rms	9
Maximum Speed	rpm	400
Resistance(otp)±10%	Ω	12
Inductance(otp)±30%	mH(25°C)	16
Torque Constant±10%	Nm/A rms	5
Number of poles	-	40
Rotor Inertia	kg-m2	0.009
Back EMF Constant	Vrms/(rad/s)	2.9
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDI-170155-F-SE-K42-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ IP65 protection rating for harsh industrial environments
- ✓ Resistant to water and oil, ideal for machine tool applications

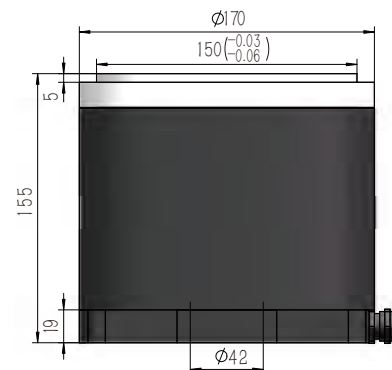
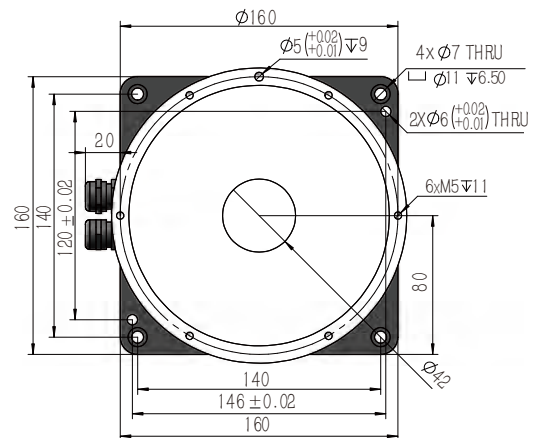


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

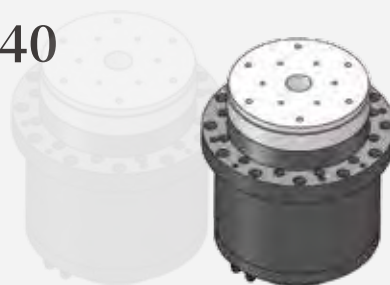
Performance Parameters	Unit	Value
Diameter	mm	170
Height	mm	155
Hollow Bore Diameter	mm	42
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	9.5
Ambient Temperature	°C	0-50
IP level	IP	65
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±20
Axial Load	N	2000
Motor constant	Nm/Sprt	5
Maximum Output Power	W	1885
Rated torque	N-M	45
Peak torque	N-M	117
Rated current	A rms	3
Peak current	A rms	9
Maximum Speed	rpm	400
Resistance(otp)±10%	Ω	18
Inductance(otp)±30%	mH(25°C)	24
Torque Constant±10%	Nm/A rms	15
Number of poles	-	40
Rotor Inertia	kg-m2	0.015
Back EMF Constant	Vrms/(rad/s)	8.7
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDI-230273-FWA-BE-K36-40

- ✓ Internal Rotor
- ✓ Circulating coolant provides efficient heat dissipation
- ✓ IP65 protection rating for harsh industrial environments
- ✓ Integrated holding brake

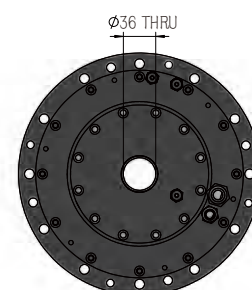
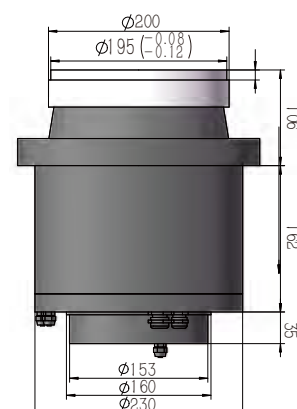
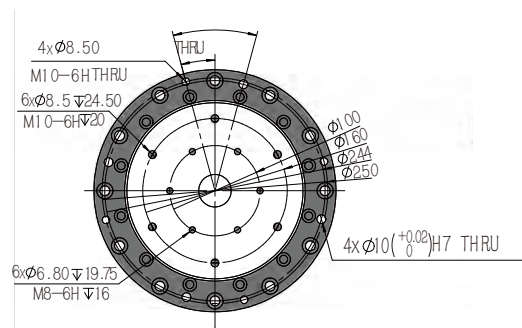


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

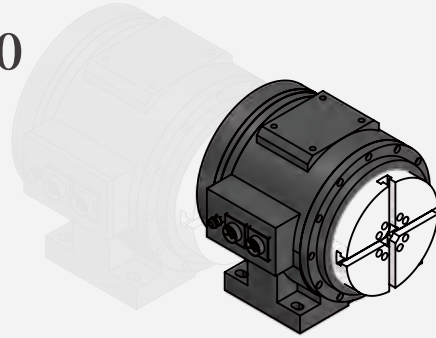
Performance Parameters	Unit	Value
Diameter	mm	230
Height	mm	273
Hollow Bore Diameter	mm	36
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	100
Ambient Temperature	°C	0-50
IP level	IP	65
Repeat Position Accuracy	Arc sec	±3
Absolute Position Accuracy	Arc sec	±20
Axial Load	N	10000
Motor constant	Nm/Sprt	9.091
Maximum Output Power	W	1885
Rated torque	N·M	90
Peak torque	N·M	180
Rated current	A rms	3.5
Peak current	A rms	7.9
Maximum Speed	rpm	200
Resistance(ptp)±10%	Ω	16
Inductance(ptp)±30%	mH(25°C)	22
Torque Constant±10%	Nm/A rms	25.714
Number of poles	-	40
Rotor Inertia	kg·m ²	0.09
Back EMF Constant	Vrms/(rad/s)	14.914
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤➤ TDI-240135-FA-SE-K30-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ IP65 protection rating for harsh industrial environments
- ✓ Integrated holding brake

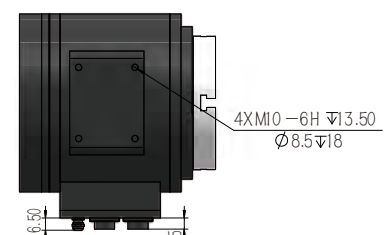
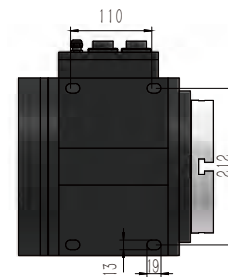
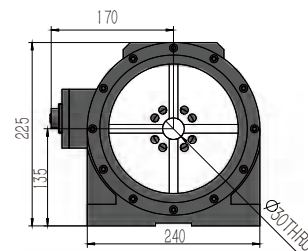
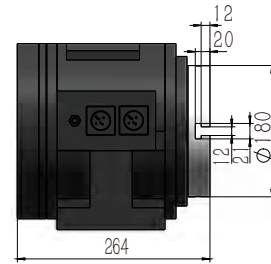


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

Performance Parameters	Unit	Value
Diameter	mm	240
Height	mm	135
Hollow Bore Diameter	mm	30
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	70
Ambient Temperature	°C	0-50
IP level	IP	65
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±10
Axial Load	N	2000
Motor constant	Nm/Sprt	8.432
Maximum Output Power	W	901
Rated torque	N·M	86
Peak torque	N·M	200
Rated current	A rms	4
Peak current	A rms	12
Maximum Speed	rpm	100
Resistance(otp)±10%	Ω	13
Inductance(otp)±30%	mH(25°C)	76
Torque Constant±10%	Nm/A rms	21.5
Number of poles	-	50
Rotor Inertia	kg·m ²	0.08
Back EMF Constant	Vrms/(rad/s)	12.47
Max. DC BUS	V	380

*All the specifications in the table are in 10% of tolerance.



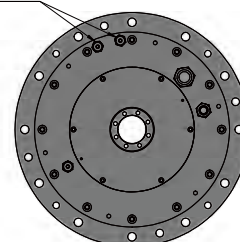
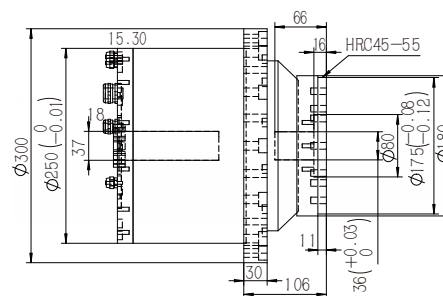
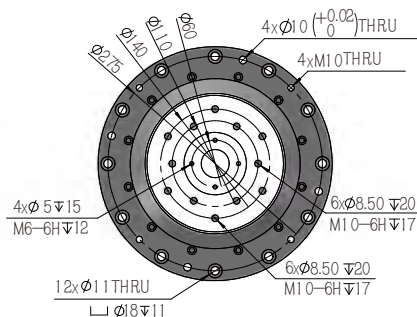
-
- Figure 10 shows two views of a mechanical component, likely a bearing or seal. The left view is a perspective drawing of a grey, cylindrical component with a flange and a central hub. The right view is a cross-sectional drawing of the same component, showing internal details such as a central bore, a flange with mounting holes, and a central hub with a smaller bore.

Encoder Features:

- ✔ Protocol: BISS-C

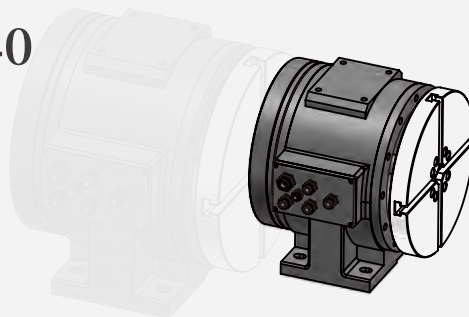
- ✔ Resolution: 26 Bit

*All the specifications in the table are in 10% of tolerance.



➤ TDI-260155-FWA-SE-K30-40

- ✓ Internal Rotor
- ✓ Circulating coolant provides efficient heat dissipation
- ✓ IP65 protection rating for harsh industrial environments
- ✓ Integrated holding brake

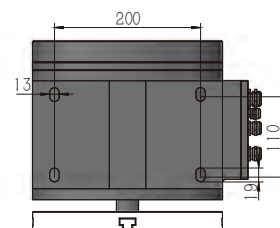
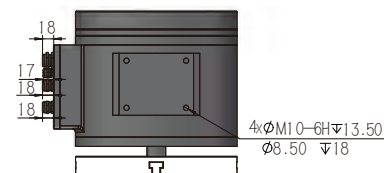
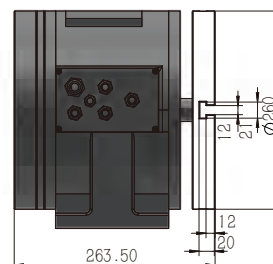
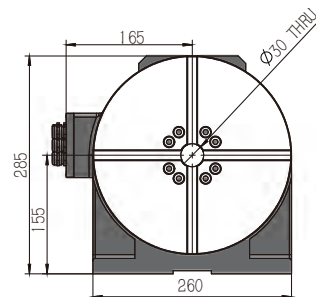


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

Performance Parameters	Unit	Value
Diameter	mm	260
Height	mm	155
Hollow Bore Diameter	mm	30
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	80
Ambient Temperature	°C	0-50
IP level	IP	65
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±10
Axial Load	N	2000
Motor constant	Nm/Sprt	11.113
Maximum Output Power	W	1602
Rated torque	N-M	255
Peak torque	N-M	510
Rated current	A rms	9
Peak current	A rms	23.4
Maximum Speed	rpm	60
Resistance(otp)±10%	Ω	13
Inductance(otp)±30%	mH(25°C)	76
Torque Constant±10%	Nm/A rms	28.333
Number of poles	-	50
Rotor Inertia	kg-m2	0.1
Back EMF Constant	Vrms/(rad/s)	16.433
Max. DC BUS	V	380

*All the specifications in the table are in 10% of tolerance.



TDDE-263144.5-SX-K60-40

- ✓ External Rotor
- ✓ Low speed, high torque
- ✓ High positioning accuracy and repeatability
- ✓ Ideal for high-precision rotary applications

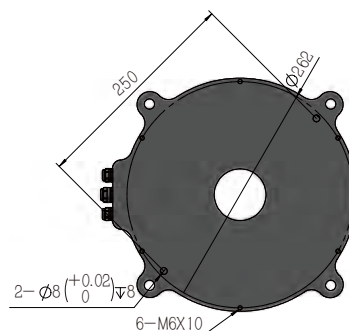
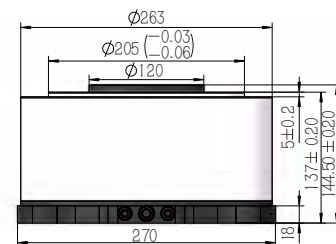
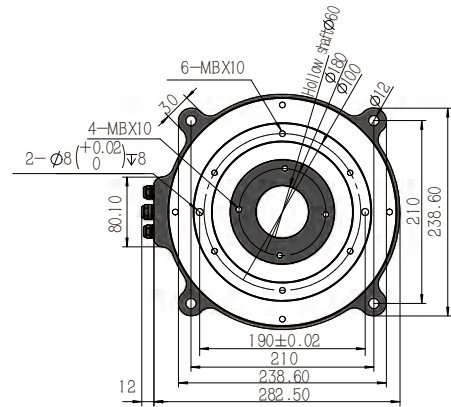


Encoder Features:

- ✓ Protocol: Incremental A/B/Z
- ✓ Resolution: 1638400 Pulse/rev

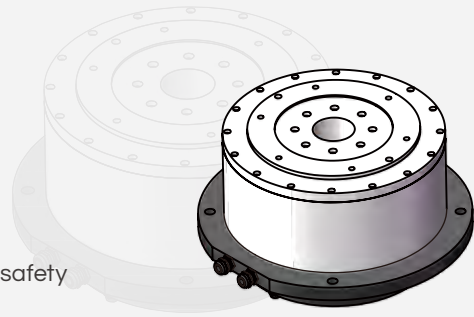
Performance Parameters	Unit	Value
Diameter	mm	263
Height	mm	144.5
Hollow Bore Diameter	mm	60
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	30
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±20
Axial Load	N	4000
Motor constant	Nm/Sprt	11.314
Maximum Output Power	W	1173
Rated torque	N·M	112
Peak torque	N·M	291.2
Rated current	A rms	7
Peak current	A rms	21
Maximum Speed	rpm	100
Resistance(otp)±10%	Ω	4
Inductance(otp)±30%	mH(25°C)	13.6
Torque Constant±10%	Nm/A rms	16
Number of poles	-	40
Rotor Inertia	kg·m ²	0.15
Back EMF Constant	Vrms/(rad/s)	9.28
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDE-264177-A-SZ-K50-40

- ✓ External Rotor
- ✓ Low speed, high torque
- ✓ Integrated holding brake
- ✓ Maintains axis position during power failure for enhanced system safety

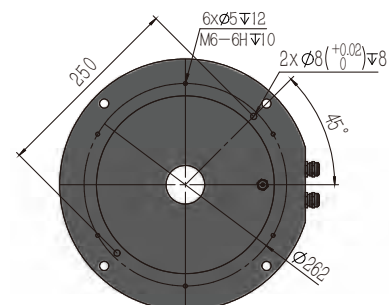
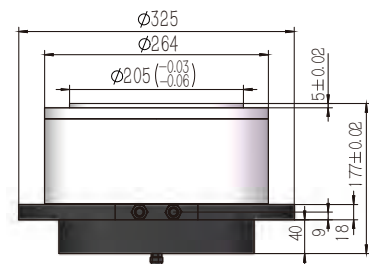
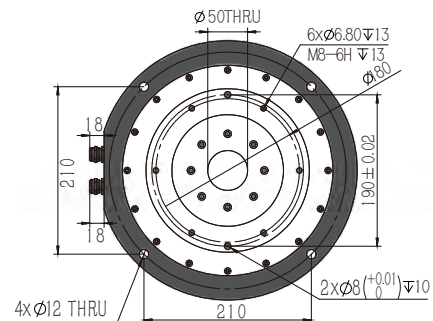


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

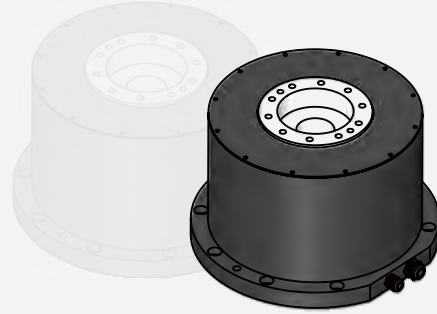
Performance Parameters	Unit	Value
Diameter	mm	264
Height	mm	177
Hollow Bore Diameter	mm	50
Axial Run Out	μm	6
Radial Run Out	μm	6
Mass	kg	20
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±1
Absolute Position Accuracy	Arc sec	±7
Axial Load	N	5000
Motor constant	Nm/Sprt	11.025
Maximum Output Power	W	1354
Rated torque	N·M	129.3
Peak torque	N·M	315.49
Rated current	A rms	7.5
Peak current	A rms	22.5
Maximum Speed	rpm	100
Resistance(otp)±10%	Ω	4.89
Inductance(otp)±30%	mH(25°C)	31.88
Torque Constant±10%	Nm/A rms	17.24
Number of poles	-	60
Rotor Inertia	kg·m ²	0.095
Back EMF Constant	Vrms/(rad/s)	10
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤➤ TDI-280200-F-SZ-K50-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ IP65 protection rating for harsh industrial environments
- ✓ Resistant to water and oil, ideal for machine tool applications

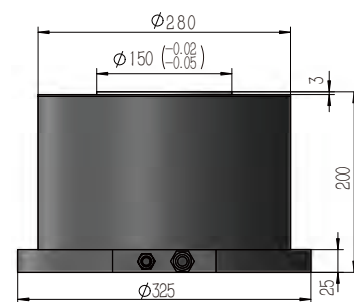
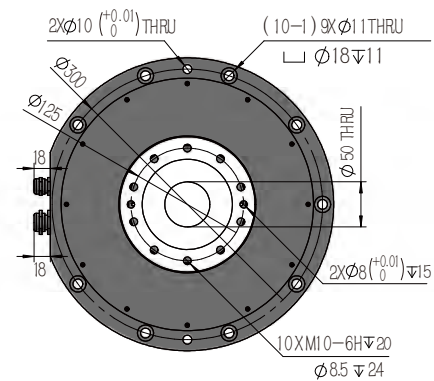


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

Performance Parameters	Unit	Value
Diameter	mm	280
Height	mm	200
Hollow Bore Diameter	mm	50
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	60
Ambient Temperature	°C	0-50
IP level	IP	65
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±10
Axial Load	N	10000
Motor constant	Nm/Sprt	15.321
Maximum Output Power	W	1361
Rated torque	N-M	130
Peak torque	N-M	260
Rated current	A rms	6
Peak current	A rms	15
Maximum Speed	rpm	100
Resistance(otp)±10%	Ω	4
Inductance(otp)±30%	mH(25°C)	16
Torque Constant±10%	Nm/A rms	21.667
Number of poles	-	60
Rotor Inertia	kg-m2	0.1
Back EMF Constant	Vrms/(rad/s)	12.567
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



► TDI-280055-A-SZ-K50-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ Integrated holding brake
- ✓ Maintains axis position during power failure for enhanced system safety

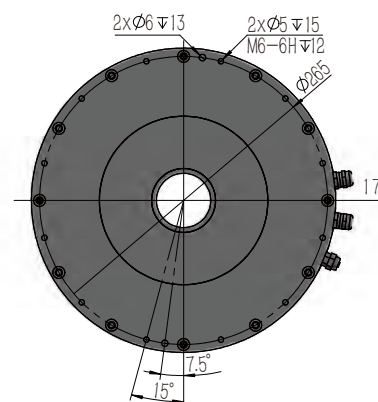
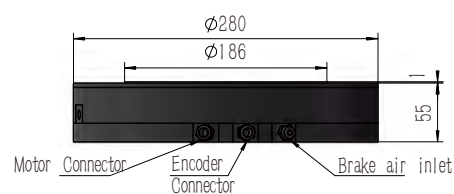
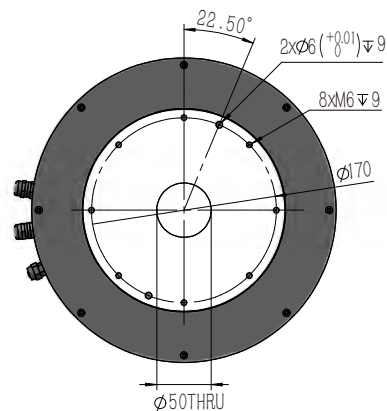


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

Performance Parameters	Unit	Value
Diameter	mm	280
Height	mm	55
Hollow Bore Diameter	mm	50
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	20
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±10
Axial Load	N	1000
Motor constant	Nm/Sprt	5.443
Maximum Output Power	W	209
Rated torque	N-M	20
Peak torque	N-M	40
Rated current	A rms	3
Peak current	A rms	7.5
Maximum Speed	rpm	100
Resistance(otp)±10%	Ω	3
Inductance(otp)±30%	mH(25°C)	18
Torque Constant±10%	Nm/A rms	6.667
Number of poles	-	60
Rotor Inertia	kg-m2	0.015
Back EMF Constant	Vrms/(rad/s)	3.867
Max. DC BUS	V	220

*All the specifications in the table are in 10% of tolerance.



➤ TDI-375296-FW-BE-K36-40

- ✓ Internal Rotor
- ✓ Motor housing with integrated cooling channels
- ✓ Circulating coolant provides efficient heat dissipation
- ✓ IP65 protection rating for harsh industrial environments

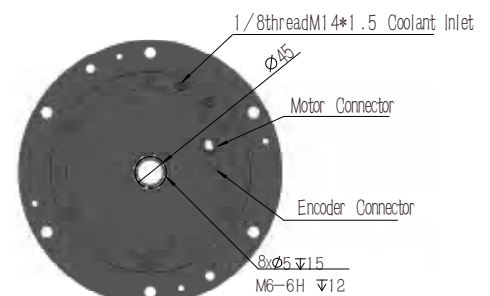
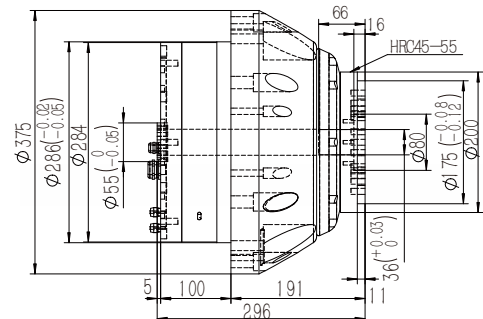
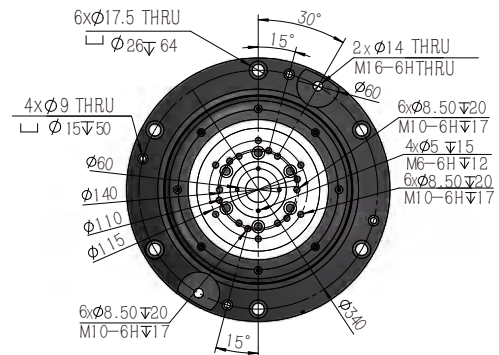


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

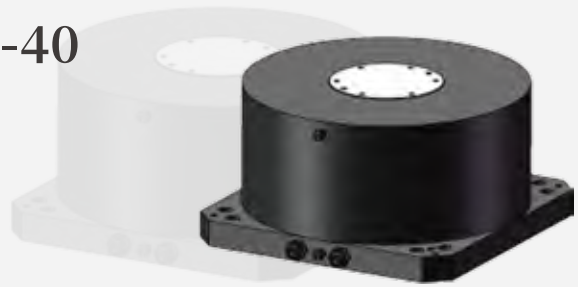
Performance Parameters	Unit	Value
Diameter	mm	375
Height	mm	296
Hollow Bore Diameter	mm	36
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	140
Ambient Temperature	°C	0-50
IP level	IP	65
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±10
Axial Load	N	10000
Motor constant	Nm/Sprrt	13.643
Maximum Output Power	W	5864
Rated torque	N-M	280
Peak torque	N-M	560
Rated current	A rms	18
Peak current	A rms	36
Maximum Speed	rpm	200
Resistance(ftp)±10%	Ω	2.6
Inductance(ftp)±30%	mH(25°C)	26
Torque Constant±10%	Nm/A rms	15.556
Number of poles	-	50
Rotor Inertia	kg-m2	0.135
Back EMF Constant	Vrms/(rad/s)	9.022
Max. DC BUS	V	380

*All the specifications in the table are in 10% of tolerance.



➤ TDI-380200-FA-SE-K00-40

- ✓ Internal Rotor
- ✓ High speed with excellent dynamic response
- ✓ IP65 protection rating for harsh industrial environments
- ✓ Integrated holding brake

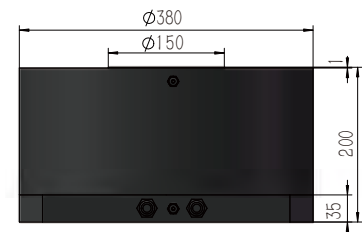
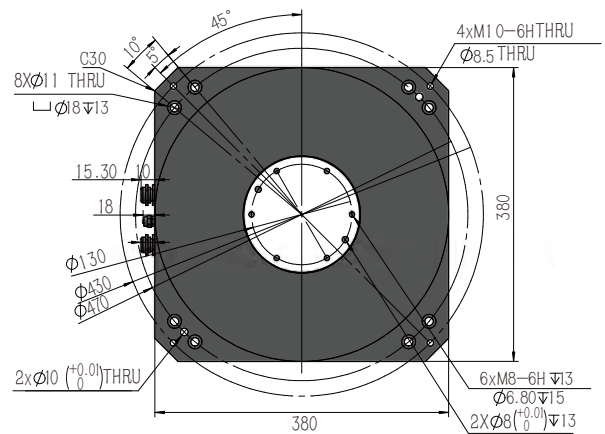


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

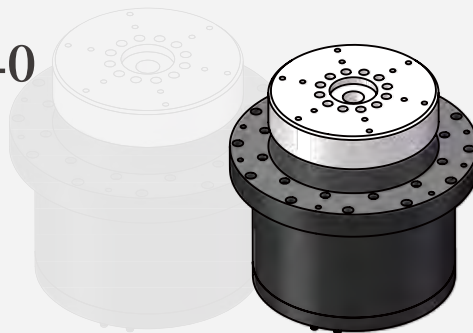
Performance Parameters	Unit	Value
Diameter	mm	380
Height	mm	200
Hollow Bore Diameter	mm	0
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	110
Ambient Temperature	°C	0-50
IP level	IP	65
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±10
Axial Load	N	10000
Motor constant	Nm/Sprt	15.811
Maximum Output Power	W	8377
Rated torque	N-M	400
Peak torque	N-M	800
Rated current	A rms	20
Peak current	A rms	40
Maximum Speed	rpm	200
Resistance(otp)±10%	Ω	3.2
Inductance(otp)±30%	mH(25°C)	24
Torque Constant±10%	Nm/A rms	20
Number of poles	-	66
Rotor Inertia	kg-m2	0.135
Back EMF Constant	Vrms/(rad/s)	11.6
Max. DC BUS	V	380

*All the specifications in the table are in 10% of tolerance.



➤ TDI-380440-FW-BH-K40-40

- ✓ Internal Rotor
- ✓ Motor housing with integrated cooling channels
- ✓ Circulating coolant provides efficient heat dissipation
- ✓ IP65 protection rating for harsh industrial environments

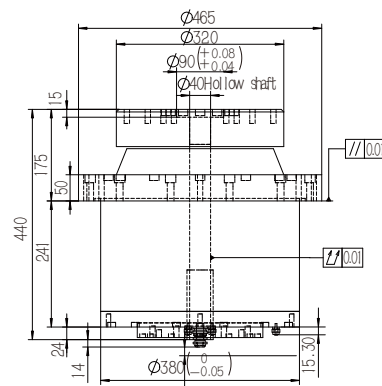
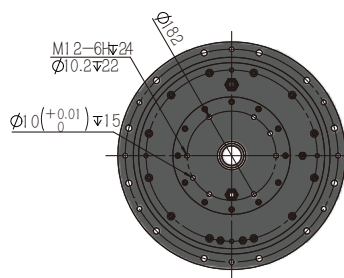
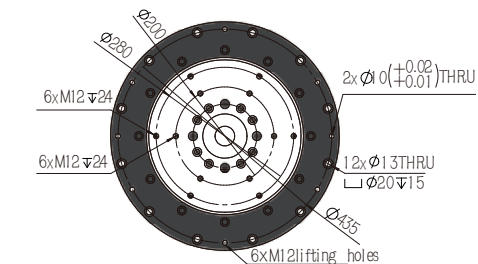


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

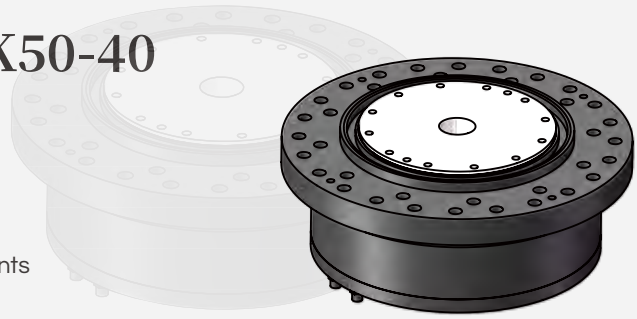
Performance Parameters	Unit	Value
Diameter	mm	380
Height	mm	440
Hollow Bore Diameter	mm	40
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	220
Ambient Temperature	°C	0-50
IP level	IP	65
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±10
Axial Load	N	20000
Motor constant	Nm/Sprt	17.817
Maximum Output Power	W	10052
Rated torque	N·M	800
Peak torque	N·M	1600
Rated current	A rms	24
Peak current	A rms	72
Maximum Speed	rpm	200
Resistance(otp)±10%	Ω	7
Inductance(otp)±30%	mH(25°C)	165
Torque Constant±10%	Nm/A rms	33.333
Number of poles	-	50
Rotor Inertia	kg·m ²	0.91
Back EMF Constant	Vrms/(rad/s)	19.333
Max. DC BUS	V	380

*All the specifications in the table are in 10% of tolerance.



➤ TDI-396180-FO-SE-K50-40

- ✓ Internal Rotor
- ✓ Motor housing with integrated cooling channels
- ✓ Circulating coolant provides efficient heat dissipation
- ✓ IP65 protection rating for harsh industrial environments

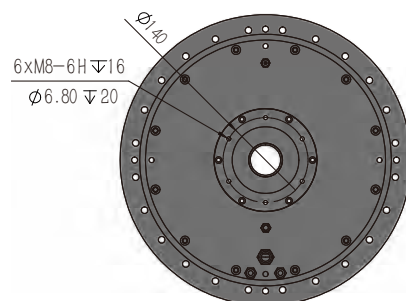
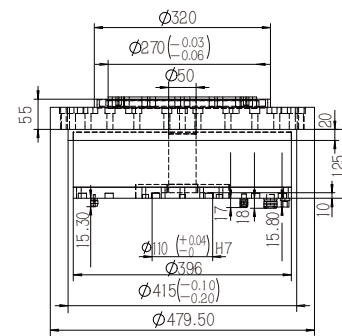
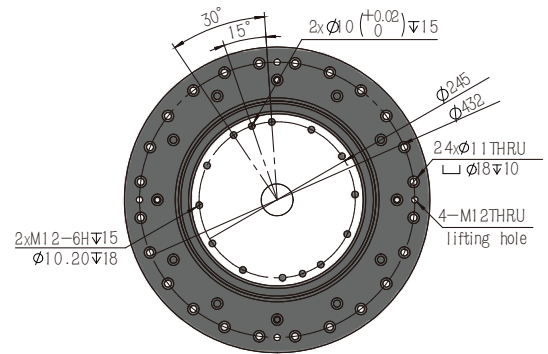


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

Performance Parameters	Unit	Value
Diameter	mm	390
Height	mm	180
Hollow Bore Diameter	mm	50
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	160
Ambient Temperature	°C	0-50
IP level	IP	65
Repeat Position Accuracy	Arc sec	±1.5
Absolute Position Accuracy	Arc sec	±10
Axial Load	N	20000
Motor constant	Nm/Sprt	12.028
Maximum Output Power	W	3141
Rated torque	N-M	500
Peak torque	N-M	1250
Rated current	A rms	24
Peak current	A rms	72
Maximum Speed	rpm	60
Resistance(otp)±10%	Ω	6
Inductance(otp)±30%	mH(25°C)	20.833
Torque Constant±10%	Nm/A rms	28.333
Number of poles	-	60
Rotor Inertia	kg-m2	0.4
Back EMF Constant	Vrms/(rad/s)	12.083
Max. DC BUS	V	380

*All the specifications in the table are in 10% of tolerance.



TDI-396160-FWA-SE-K40-40

- ✓ Internal Rotor
- ✓ Circulating coolant provides efficient heat dissipation
- ✓ IP65 protection rating for harsh industrial environments
- ✓ Integrated holding brake

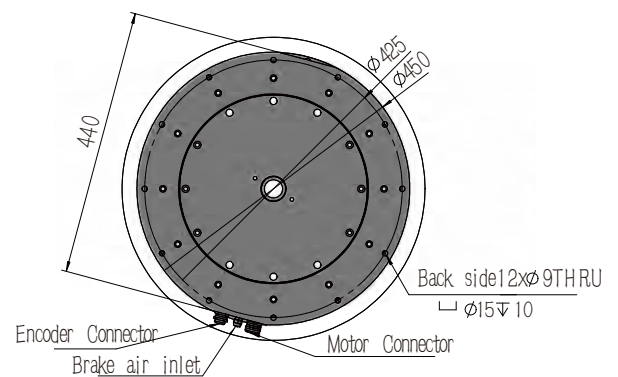
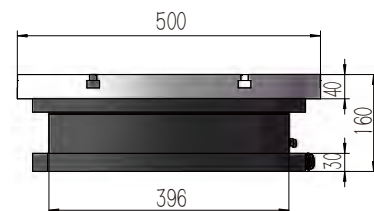
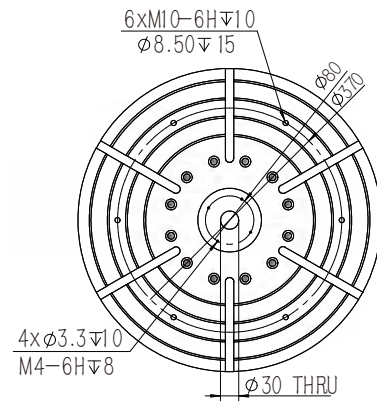


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

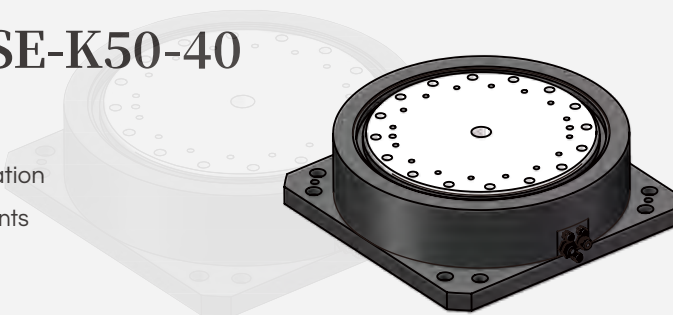
Performance Parameters	Unit	Value
Diameter	mm	396
Height	mm	160
Hollow Bore Diameter	mm	40
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	150
Ambient Temperature	°C	0-50
IP level	IP	65
Repeat Position Accuracy	Arc sec	±1
Absolute Position Accuracy	Arc sec	±7
Axial Load	N	20000
Motor constant	Nm/Sprt	11.411
Maximum Output Power	W	5236
Rated torque	N-M	250
Peak torque	N-M	650
Rated current	A rms	20
Peak current	A rms	60
Maximum Speed	rpm	200
Resistance(ftp)±10%	Ω	2.4
Inductance(ftp)±30%	mH(25°C)	15.4
Torque Constant±10%	Nm/A rms	12.5
Number of poles	-	50
Rotor Inertia	kg-m2	1.3
Back EMF Constant	Vrms/(rad/s)	7.25
Max. DC BUS	V	380

*All the specifications in the table are in 10% of tolerance.



➤ TDI-450133-FWO-SE-K50-40

- ✓ Internal Rotor
- ✓ Circulating coolant provides efficient heat dissipation
- ✓ IP65 protection rating for harsh industrial environments
- ✓ Integrated holding brake

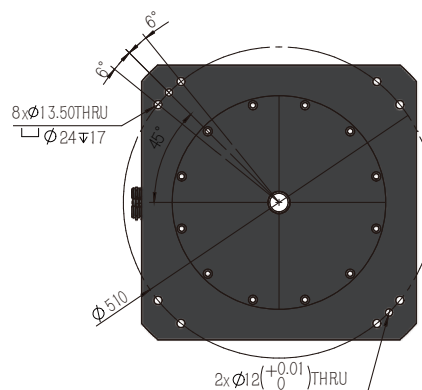
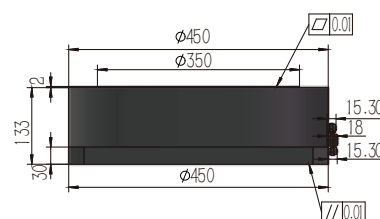
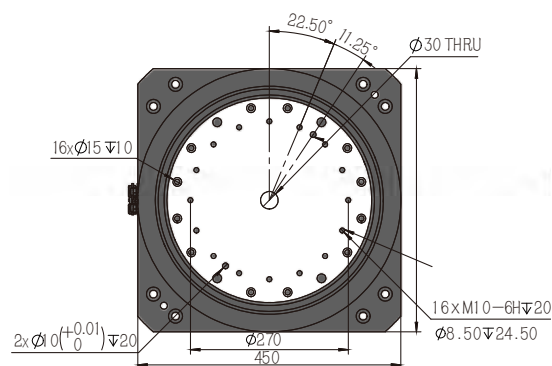


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

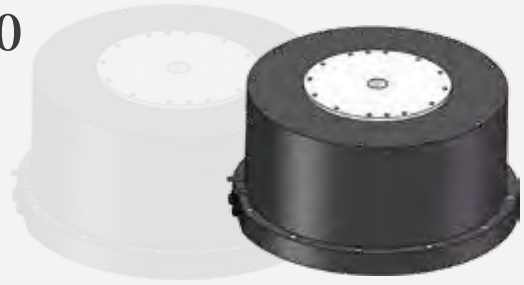
Performance Parameters	Unit	Value
Diameter	mm	450
Height	mm	133
Hollow Bore Diameter	mm	50
Axial Run Out	μm	10
Radial Run Out	μm	10
Mass	kg	160
Ambient Temperature	°C	0-50
IP level	IP	65
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±15
Axial Load	N	40000
Motor constant	Nm/Sprrt	13.969
Maximum Output Power	W	6283
Rated torque	N-M	400
Peak torque	N-M	800
Rated current	A rms	20
Peak current	A rms	40
Maximum Speed	rpm	150
Resistance(ftp)±10%	Ω	4.1
Inductance(ftp)±30%	mH(25°C)	37
Torque Constant±10%	Nm/A rms	20
Number of poles	-	60
Rotor Inertia	kg-m2	2.5
Back EMF Constant	Vrms/(rad/s)	11.6
Max. DC BUS	V	380

*All the specifications in the table are in 10% of tolerance.



TDI-650350-W-SE-K50-40

- ✓ Internal Rotor
- ✓ Motor housing with integrated cooling channels
- ✓ Circulating coolant provides efficient heat dissipation
- ✓ Suitable for applications with high continuous current

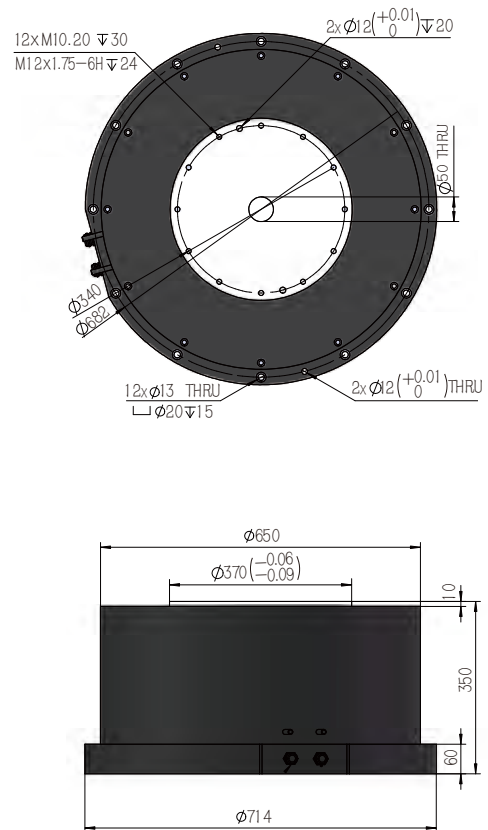


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

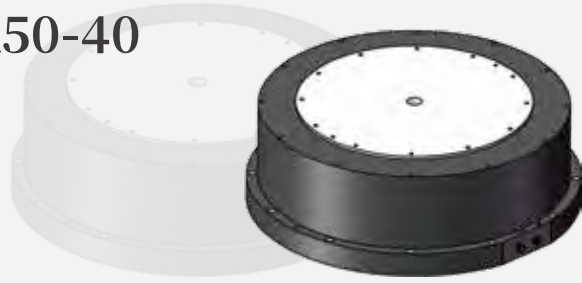
Performance Parameters	Unit	Value
Diameter	mm	650
Height	mm	350
Hollow Bore Diameter	mm	50
Axial Run Out	μm	15
Radial Run Out	μm	15
Mass	kg	300
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±10
Axial Load	N	100000
Motor constant	Nm/Sprt	133.87
Maximum Output Power	W	13089
Rated torque	N·M	2500
Peak torque	N·M	5000
Rated current	A rms	15
Peak current	A rms	45
Maximum Speed	rpm	50
Resistance(ptp)±10%	Ω	3.1
Inductance(ptp)±30%	mH(25°C)	15
Torque Constant±10%	Nm/A rms	166.667
Number of poles	-	64
Rotor Inertia	kg·m ²	3
Back EMF Constant	Vrms/(rad/s)	96.667
Max. DC BUS	V	380

*All the specifications in the table are in 10% of tolerance.



➤ TDI-1000350-W-SE-K50-40

- ✓ Internal Rotor
- ✓ Motor housing with integrated cooling channels
- ✓ Circulating coolant provides efficient heat dissipation
- ✓ Suitable for applications with high continuous current

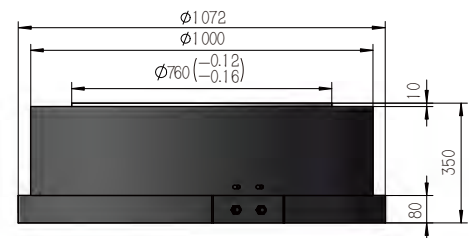
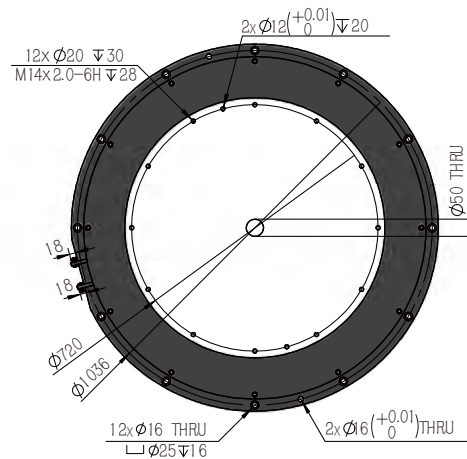


Encoder Features:

- ✓ Protocol: BISS-C
- ✓ Resolution: 26 Bit

Performance Parameters	Unit	Value
Diameter	mm	1000
Height	mm	350
Hollow Bore Diameter	mm	50
Axial Run Out	μm	20
Radial Run Out	μm	20
Mass	kg	700
Ambient Temperature	°C	0-50
IP level	IP	40
Repeat Position Accuracy	Arc sec	±2
Absolute Position Accuracy	Arc sec	±20
Axial Load	N	200000
Motor constant	Nm/Sprt	-
Maximum Output Power	W	25130
Rated torque	N-M	8000
Peak torque	N-M	20000
Rated current	A rms	24
Peak current	A rms	72
Maximum Speed	rpm	30
Resistance(ptp)±10%	Ω	-
Inductance(ptp)±30%	mH(25°C)	-
Torque Constant±10%	Nm/A rms	333.33
Number of poles	-	64
Rotor Inertia	kg-m2	5
Back EMF Constant	Vrms/(rad/s)	193.41
Max. DC BUS	V	380

*All the specifications in the table are in 10% of tolerance.





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YOUTUBE

Torque range: 0.01 NM - 20,000 NM

Speed range: 0.01 rpm - 20,000 rpm

Protection range: IP00 - IP67

Speed fluctuation: 0.2% - 1%

Temperature range: 0°C - 135°C

Hollow dimension: 0mm - 1100mm

Braking system: Air brake, electric brake, hydraulic brake

Special structures: Shaft-mounted, straight-out shaft, irregularly shaped adapter

TPA Motion Control International Co., Limited