



DBDB-335-100/100-770/820-A26/A29W-A/A

Torque Motor 5-Axis Swing Head Instruction Manual

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Appendix 3 Technical Parameter Table

Swing Head Model DBDB-335-100/100-770/820-A26/A29W-A/A		
No. Technical Parameter		
01 Mounting Flange Size (mm)	$\phi 335g7$	
	Swing Axis	Rotation Axis
02 Rated Torque S1 (N·m)	764(382*2)	810
03 Max Torque S1 (N·m)	1528(764*2)	1150
04 Brake Clamping Torque (N·m/0.55MPa)	2160(1080*2)	2800(1400*2)
05 Encoder	EnDat 2.2 Protocol; Resolution: 26 bit	EnDat 2.2 Protocol; Resolution: 27 bit
06 Positioning Accuracy (arcsec)	± 10	± 10
07 Repeatability (arcsec)	± 5	± 5
08 Axial Stiffness (N/ μ m)	≥ 1000	
09 Radial Stiffness (N/ μ m)	≥ 800	
10 Tilt Stiffness (N·m/mrad)	≥ 4000	
11 Noise Level (dB(A)@100rpm)	≤ 68	
12 Cooling System	Water-cooled	
13 Product Weight (kg)	500	

Motor Parameters		
	Swing Axis	Rotation Axis
01 Motor Moment of Inertia (kg·m ²)	2.02	14.08
02 Rated Voltage (V)	220	220
03 Rated Speed (rpm)	100	100
04 Max Speed (rpm)	100	100
05 Rated Current (A)	36(18*2)	28
06 Max Current (A)	72(36*2)	44
07 Rated Torque (N·m)	764(382*2)	810
08 Max Torque (N·m)	1528(764*2)	1100



09 Rated Power (kW)	8(4*2)	8.48
10 Max Power (kW)	12(6*2)	9.5
11 Rated Frequency (Hz)	35	35
12 Max Frequency (Hz)	35	35
13 Motor Pole Count (2P)	42	42
14 Motor Terminal Resistance (Ω)	1.95(3.9/2)	3.2
15 Motor Terminal Inductance (mH)	11.5(23/2)	28
16 D-axis Inductance (mH)	11.5	9.5
17 Q-axis Inductance (mH)	11.5	9.5
18 Back-EMF Constant RMS (V /krpm)	1314	1314
19 Torque Constant (N·m/A)	21.2	28.9
20 Thermal Sensor Model	KTY84-130	KTY84-130
21 Motor Winding Insulation Resistance (M Ω)	≥ 500	
22 Motor Winding Withstand Voltage Test (V/M)	1500V/1 min Withstand Voltage Test	
23 Cold-state Winding Resistance (Ω)	Three-phase Balanced (Max Resistance Difference < 3%)	

Electrospindle Parameters	
01 Electrospindle Model	DGZYX-18018/35-KFHWVJLS
02 Rated Speed (rpm)	5500
03 Max Speed (rpm)	18000
04 Rated Voltage (V)	350
05 Rated Frequency (Hz)	275
06 Max Frequency (Hz)	900
07 Continuous Rated Output Power (S1-100%/kW)	35
08 Continuous Rated Output Torque (S1-100%/N·m)	60.7
09 Continuous Rated Input Current (S1-100%/A)	70
10 Max Input Current (A)	150
11 Weight (kg)	$\approx 70.3 (\pm 10\%)$
12 Tool Holder Interface	HSK-A63

13 Tool Release Method	Hydraulic Tool Release
14 Cooling System	Water-cooled
15 Encoder Signal L+B (sin/cos 1Vpp)	
16 Spindle Mounting Diameter	Φ180h5