

Torque Motor Cradle 5-Axis

(DZDC-125-250/400-105/20-A26-A/A4)

Instruction Manual



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Appendix 3, Technical Parameters Table

Turntable Model DZDC-125-250/400-105/20-A26-A/A4 Torque Motor Cradle 5-Axis		
No.	Tilt Axis	Rotation Axis
01 Table Diameter (mm)		φ160
02 Max. Workpiece Diameter (mm)		φ270
03 Rotary Table Face Runout (mm)		≤0.005
04 Rotary Table Radial Runout (mm)		≤0.005
05 Tilt Axis Rotation Angle (deg)		±110°
06 Brake Operating Pressure (MPa)		0.5-0.55
07 Brake Clamping Torque (N·m)		235+60
08 Encoder	FANUC: 23 bit	Biss-C: 2 6 bit
09 C-axis Table Axial Stiffness (N/μm)		≥350
10 C-axis Table Radial Stiffness (N/μm)		≥300
11 C-axis Table Overturning Stiffness (N·m/mrad)		≥800
12 Noise Level (dB(A))		≤68
13 Workpiece Load Weight (kg)		30
14 Turntable Total Weight (kg)		152

Motor Parameters		
No.	Tilt Axis	Rotation Axis
01 Motor Inertia (kg·m ²)		0.329
02 Rated Voltage (V)		220
03 Rated Speed (rpm)		200
04 Max. Speed (rpm)		250
05 Rated Current (A)		8.5

06 Max. Current (A)	30	1 0 8
07 Rated Torque (N·m)	105	2 0
08 Max. Torque (N·m)	332	8 0
09 Rated Power (kW)	2.2	0 4 2
10 Max. Power (kW)	4.62	1 6 4
11 Rated Frequency (Hz)	33.33	7 3 3
12 Max. Frequency (Hz)	41.66	14 6 7
13 Number of Motor Poles (2P)	20	4 4
14 Motor Terminal Resistance (Ω)	4.2	7
15 Motor Terminal Inductance (mH)	52.5	2 3 2
16 D-axis Inductance (mH)	33.7	8 8
17 Q-axis Inductance (mH)	33.7	8 8
18 Back-EMF Constant RMS (V/krpm)	730	4 8 3
19 Torque Constant (N·m/A)	12.35	7 4
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/1min withstand voltage test	
23 Winding Cold Terminal Resistance (Ω)	Three-phase balanced (max. resistance difference < 3%)	

Appendix 4, Overall Dimension Drawing

