

VAXOR

25mm Micro Joint Module Specifications



25mm
Micro Joint Module



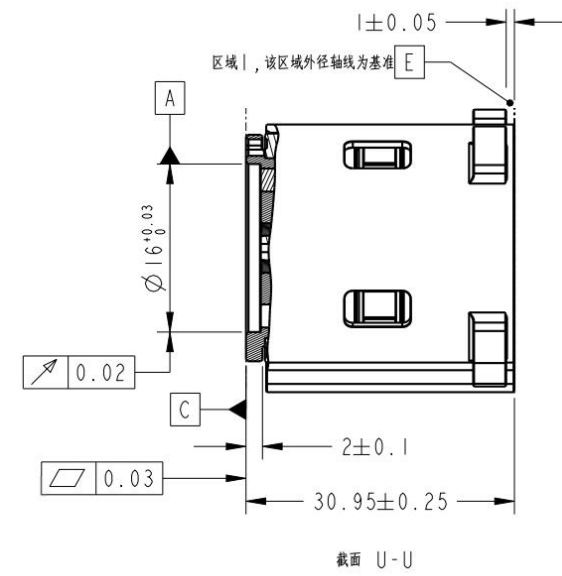
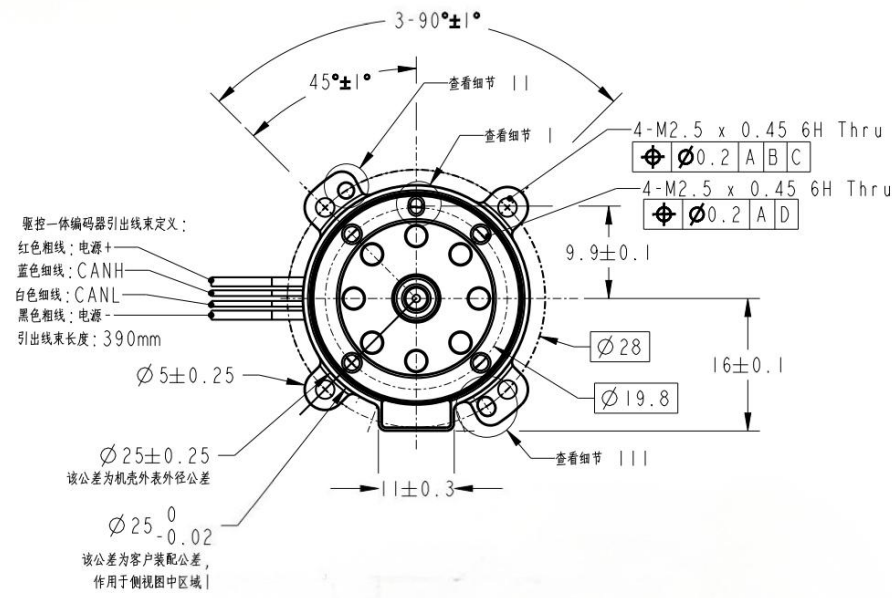
*This product is primarily used in dexterous hands, highly integrated robots, and other fields requiring mechanical motion control actuators.

*Caution: Please refer to the specifications during use and avoid exceeding the parameter range to prevent damage.

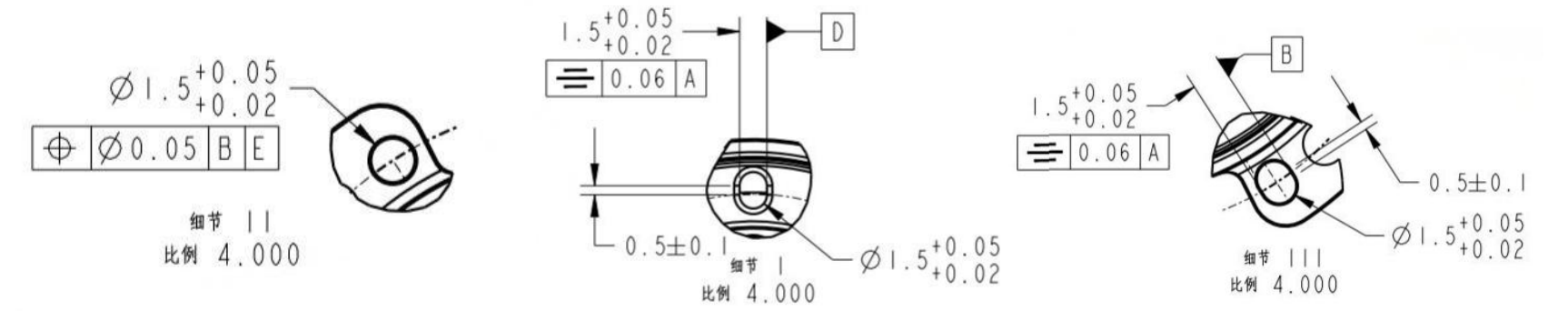
We welcome inquiries and discussions regarding product-related questions.

01. Appearance Reference

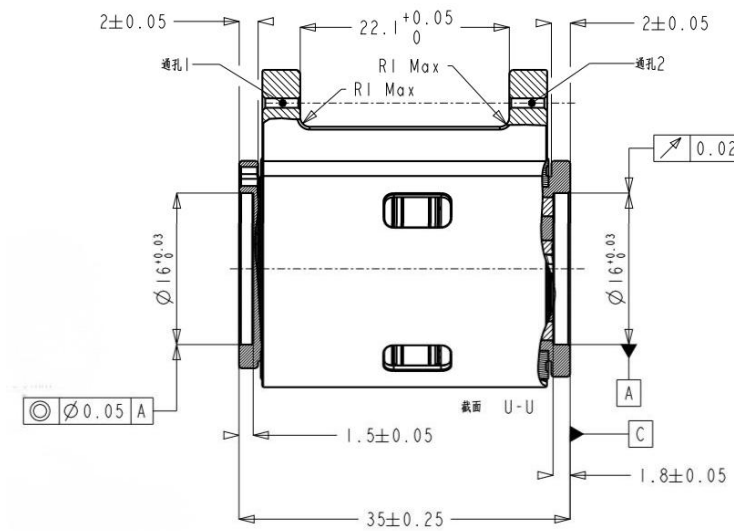
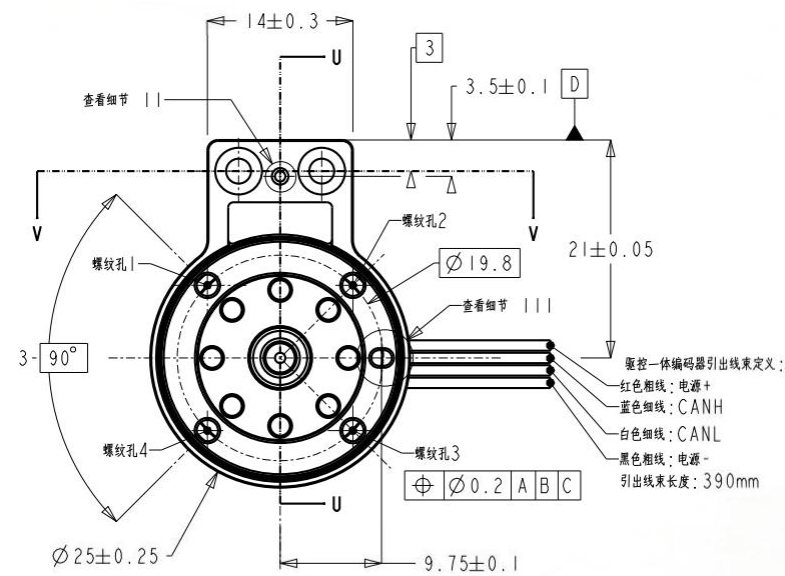
X25S-UZ30/50/80-MH-1



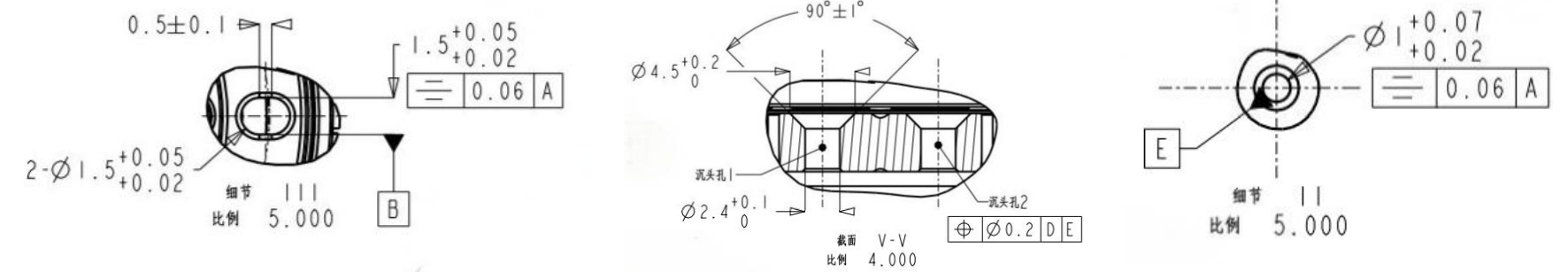
Housing Mounting Holes Detail



X25S-BZ30/50/80-MH-1



Housing Mounting Holes Detail



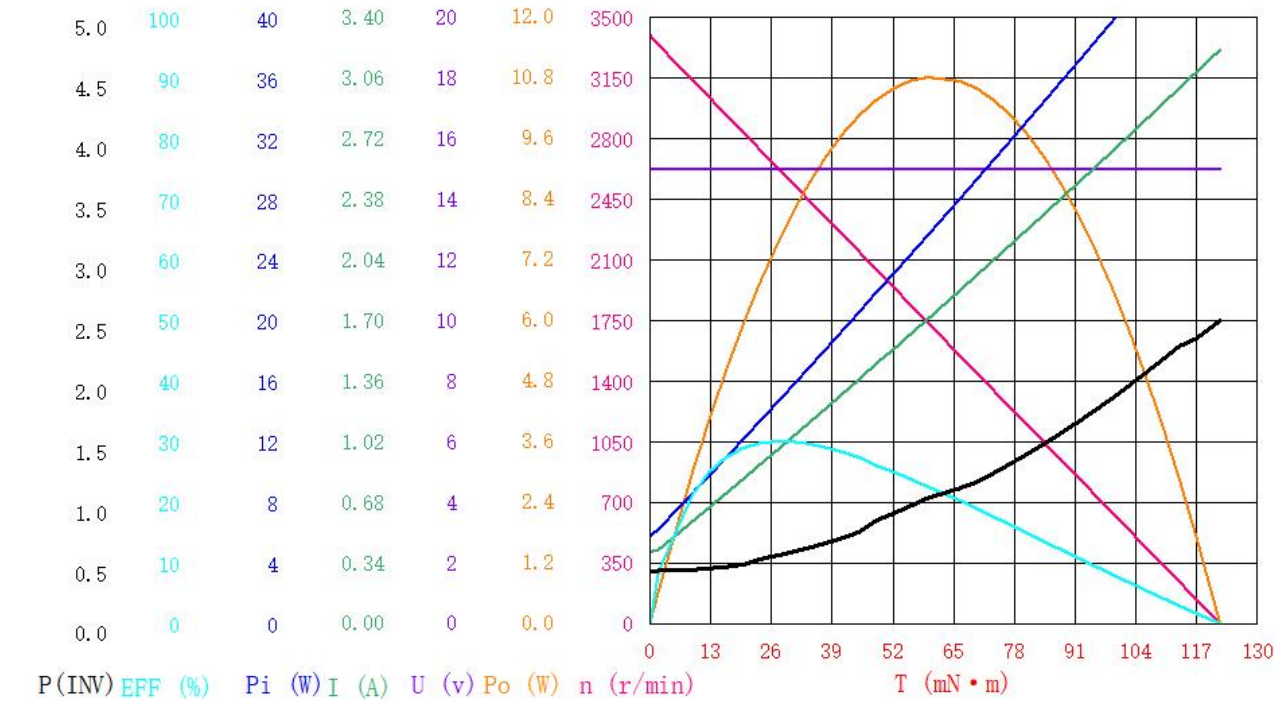
03. Technical Specifications

Motor Data		Unit	X25S-UZ30/50/80-MH-1	X25S-BZ30/50/80-MH-1
1	Nominal Voltage	V	12~18	
2	No Load Speed	Rpm	≤3000	
3	Nominal Speed	Rpm	≤2000	
4	*Continuous Stalling Torque	mNm	43	
5	*Continuous Stalling Current	A	1.2	
6	*Stalling Torque (Max)	mNm	120	
7	*Stalling Current(Max)	A	3.2	
8	*Terminal Resistance	Ω	3.8	
9	Unbalanced Three-Phase Resistance	%	≤2	
10	*Terminal Inductance	mH	2.1	
11	Unbalanced Three-phase Inductance	%	≤2	
12	Torque Constant	mNm/A	42	
13	Speed Constant	rpm/V	227	
14	Rotor Inertia	gcm ²	6.1	
Electric Drive Assembly				
15	Gear Ratio	/	30	50
16	Gear Efficiency (maximum)	%	70	65
17	Gear Efficiency (Stalling Point)	%	60	55
18	Continuous Stalling Torque	mNm	750	1150
19	Initial Torque (cold state)	mNm	1500	1800△
20	Backlash of Gears	Arcmin	15	
21	Encoder	Absolute Magnetic Encoder		
22	Communication Protocol	CAN FD		
23	Total Weight	g	93(UZ)/103(BZ)	
24	Total Inertia	gcm ²	12.7	
Thermal Data				
25	Loss Power	w	5	8.3
26	Chassis Temperature	°C	80	115

*Indicates a deviation of ±10% between actual and theoretical values

△Indicates that the output torque is limited by mechanical strength

Single Motor Test Data (DC Bus Voltage: 15 V, Duty Cycle: 0.9)



Electric Drive Assembly Test Data (Gear Ratio: 50, DC Bus Voltage: 15 V, Duty Cycle: 0.9)

