ZDFX0808

INDUSTRIAL ROBOT

Robot model		ZDFX0808
Freedom		6
Position		Ground installation and suspended ceiling installation
Maximum operating speed	J1 Axis	233° /sec
	J2 Axis	236° /sec
	J3 Axis	291° /sec
	J4 Axis	372° /sec
	J5 Axis	500° /sec
	J6 Axis	375° /sec
Maximum operating range	J1 Axis	±170°
	J2 Axis	-145° ~+80°
	J3 Axis	-70° ~+180°
	J4 Axis	±180°
	J5 Axis	±130°
	J6 Axis	±360°
Maximum activity radius		827mm
Maximum end load		8KG
Body weight		About 42kg
Allowable torque	J4	16.6N • m
	J5	16.6N • m
	J6	9.4N • m
Allowable moment of inertia	J4	0.5kg-㎡
	J5	0.5kg-㎡
	J6	0.2kg-㎡
Repeatability		±0.05mm
Robot base size		200x300mm
Ambient temperature		0~45℃
Relative humidity		20~80%RH
Atmospheric pressure		89KPa~106KPa(Altitude below 1000m)
Vibration, impact, collision		≤0.5G
Protection grade		IP65

- Inertia tensor of the connecting rod relative to the center of mass

Object	Base	Rotating seat components	Boom components	Small arm fixed seat components	Small arm components	Wrist
Consult	Coordinate system 0	Coordinate system 1	Coordinate system 2	Coordinate system 3	Coordinate system 4	Coordinate system 5
Ixx(Kgmm^2)	/	2.7x10^4	7.1x10^4	1.9x10^4	9.8x10^4	4.2x10^3
Iyy(Kgmm^2)	/	4.0x10^4	8.1x10^5	1.2x10^4	9.5x10^4	8.7x10^2
Izz (Kgmm^2)	/	3.0x10^4	7.8x10^5	2.0x10^4	9.0x10^3	4.0x10^3

- Joint coupling

Joint	J1-J2	J2-J3	J3-J4	J4-J5	J4-J6	J5-J6
Coupling relationship equation (Coupling coefficient)	/	/	/	/	/	80

- Reducer parameters

Model	32 Harmonic	32 Harmonic	25 Harmonic	20 Harmonic	17 Harmonic	17 Harmonic
Reducer reduction ratio	80	80	80	50	50	80
Comprehensive reduction ratio	128.57	114.28	92.571	80.645	60	80
Rated output speed(r/min)	/					
Rated torque(N • m)	76	76	39	25	16	16
Permissible torque for starting and stopping(N • m)	216	216	98	56	34	34
Instantaneous maximum torque(N • m)	382	382	186	98	70	70
Moment rigidity(N • m)	/					
Instantaneous maximum torque(N • m)	/					

- Motor parameters

Joint	J1	J2	J3	J4	J5	J6
Motor model	60	80	60	60	60	60
Rated power(kW)	0.4	0.75	0.4	0.2	0.1	0.1
Rated voltage(V)	220					
Rated current(A)	2.6	5	2.6	1.4	0.85	0.85
Rated torque(N • m)	1.27	2.38	1.27	0.63	0.32	0.32
Rated speed(r/min)	3000	3000	3000	3000	3000	3000
Maximum speed(r/min)	4500	4000	5500	5500	5500	5000
Rotor inertia(*10e-4kgm^2)	0.4	1.2	0.4	0.216	0.113	0.113
Line back electromotive force coefficient(V/Krpm)	33	36.2	33	49.2	47	47
Number of pole pairs	5					
Encoder	17 bit multi turn insulation value Tamagawa agreement					