ZDGT10024

INDUSTRIAL ROBOT

Robot model		ZDGT10024
Freedom		6
Position		Ground installation and suspended ceiling installation
Maximum operating speed	J1 Axis	85° /sec
	J2 Axis	84° /sec
	J3 Axis	126° /sec
	J4 Axis	156° /sec
	J5 Axis	145° /sec
	J6 Axis	205° /sec
Maximum operating range	J1 Axis	±180°
	J2 Axis	-150° ~+85°
	J3 Axis	-80° ~+140°
	J4 Axis	±360°
	J5 Axis	±120°
	J6 Axis	±360°
Maximum activity radius		2440mm
Maximum end load		100KG
Body weight		About 730kg
Allowable torque	J4	690N • m
	J5	690N • m
	J6	260N • m
Allowable moment of inertia	J4	57kg-㎡
	J5	57kg-㎡
	J6	32kg-㎡
Repeatability		±0.1mm
Robot base size		640x650mm
Ambient temperature		0~45℃
Relative humidity		20~80%RH
Atmospheric pressure		89KPa~106KPa(Altitude below 1000m)
Vibration, impact, collision		≤0.5G
Protection grade		IP54(Wrist IP67)

- 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)	/	5.8x10^6	6.7x10^6	2.0x10^7	2.4x10^5	1.3x10^5
Iyy(Kgmm^2)	/	1.8x10^7	6.5x10^7	6.8x10^6	2.0x10^5	9.9x10^4
Izz (Kgmm^2)	/	2.0x10^7	6.0x10^7	2.3x10^7	1.1x10^5	8.6x10^4

- Joint coupling

Joint	J1-J2	J2-J3	J3-J4	J4-J5	J4-J6	J5-J6
Coupling relationship equation (Coupling coefficient)	/	/	/	80	81	81

- Reducer parameters

Model	320CA	500D	160D	80D	60D	42D
Reducer reduction ratio	60	52.25	40.25	33	81	81
Comprehensive reduction ratio	210	209	156	151.41	143.53	102.21
Rated output speed(r/min)	15	15	15	15	15	15
Rated torque(N • m)	3136	4900	1600	784	600	412
Permissible torque for starting and stopping(N • m)	7840	12250	4000	1960	1500	1029
Instantaneous maximum torque(N • m)	15680	24500	8000	3920	3000	2058
Moment rigidity(N • m)	20580	11000	4000	2150	2000	1660
Instantaneous maximum torque(N • m)	39200	22000	8000	4300	4000	3320

- Motor parameters

Joint	J1	J2	J3	J4	J5	J6
Motor model	180	180	180	130	130	130
Rated power(kW)	5.5	5.5	4.6	2.5	2.5	1.5
Rated voltage(V)	380					
Rated current(A)	22	22	18	6.9	6.9	4.2
Rated torque(N • m)	35	35	29.2	7.96	7.96	4.77
Rated speed(r/min)	1500	1500	1500	3000	3000	3000
Maximum speed(r/min)	3000	3000	3000	4000	3500	3500
Rotor inertia(*10e-4kgm^2)	68	68	60	18	18	11
Line back electromotive force coefficient(V/Krpm)	111	111	110	80	80	80
Number of pole pairs	5					
Encoder	17 bit multi turn insulation value Tamagawa agreement					