

KCERM-R142 Module Series

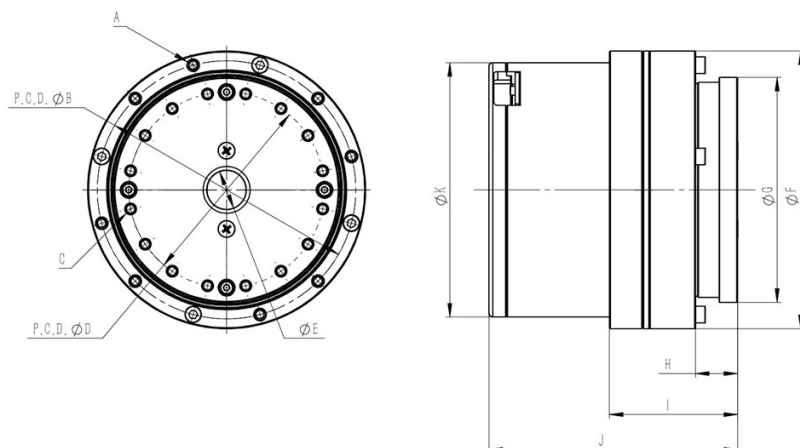


The product can effectively replace some direct-drive motors and hollow rotary platforms. Rotating actuators such as precision cam splitters and servo-integrated high-ratio planetary reducers. The harmonic reducer is combined with a standard servo motor or a stepper motor.

Feature

In the field of collaborative robots, further reduce the volume and weight of the robot joint module, implement a highly integrated transmission joint module solution.

Drawing



Naming resolution

K	CE	RM	R142	100	20	B	S	C	N
Product coding	Integration	Joint Module	Specifications	reduction ratio	Inner diameter	Is there a brake	Encoder type	contact method	torque sensor

Product size specification table(mm)

	A	B	C	D	E	F	G	H	I	J	K
R142	8-φ4.5 T27 EQS M5T12	132	16-φ4.5 T20 EQS M5T12	100	20	142	115	21.5	65.5	127	130
Deviation	—	—	—	—	—	0 -0.03	0 -0.03	—	—	—	—
Weight (kg)	No brakes: 5.47Kg					Equipped with brakes: 5.80Kg (friction damping brake)					

Parameter Table 1

Model	R110					
Speed ratio	—	50	80	100	120	160
Input the rated torque at 2000r/min	Nm	99	153	178	178	178
	kgfm	9.9	15.3	17.8	17.8	17.8
Allowable peak torque during start-stop	Nm	281	395	433	459	484
	kgfm	28.1	39.5	43.3	45.9	48.4
Allowable maximum torque of average load torque	Nm	140	217	281	281	281
	kgfm	14.0	21.7	28.1	28.1	28.1
Instantaneous allowable maximum input torque	Nm	497	738	841	892	892
	kgfm	49.7	73.8	84.1	89.2	89.2
Maximum allowable input speed (grease lubrication)	r/min	4800				
Allowable average input speed (grease lubrication)	r/min	3500				
Maximum allowable rotational speed at the output end	RPM	70	43	35	29	21
Backlash	Arc Sec	≤30			≤25	
Design life	Hour	15000			12000	

Parameter Table 2

Model	R110		
Brake parameters	Static torsion	Nm	≥3.0
	Braking response time	ms	120
	Disconnect response time	ms	50
Encoder parameters	position loop	bit	19
	speed loop	bit	20
Motor parameters	rated power	w	732
	rated speed	RPM	3500
	rated torque	Nm	2.0
	peak torque	Nm	6.0
Driver parameters	communication interface	—	EtherCAT/CANOpen
	Control bandwidth	—	Current loop: 50KHz Speed loop: 10KHz
	protection function	—	Reverse connection, overheating, short circuit Overvoltage, undervoltage, self check